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Construction and Practice of a Faculty Teaching Innovation Team for Cruise Interior Outfitting Technology Co-driven by Industry-Education Integration and Digital-Intelligence Empowerment

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Abstract: ***In response to the successive construction of domestically built large cruise ships and ongoing reforms in vocational education, conventional approaches to faculty development and organizational structures are no longer sufficient for cultivating interdisciplinary professionals in cruise interior design and outfitting technology. Taking the faculty team at Jiangsu Maritime Institute as a case study, this research employs policy analysis, occupational task analysis, and comparative case study methods to explore pathways for team building and pedagogical reform. The study proposes an organizational model featuring dual leadership (college–enterprise collaboration), cross-disciplinary hybrid teams, and real-world project communities. It further establishes an operational mechanism encompassing occupational requirement analysis, curriculum project reconstruction, dual-base collaborative practice, digital-intelligent technology empowerment, and multi-party evidence-based evaluation. This framework integrates marine materials and manufacturing processes, safety regulations, prefabricated interior outfitting, building information modeling (BIM), and generative artificial intelligence into the curriculum. Practical implementation demonstrates that this model enhances faculty competencies in aesthetic design, engineering execution, digital technology application, and industry engagement, offering a replicable reference for higher vocational colleges seeking to build structured teaching innovation teams tailored to the high-end marine equipment industry.***

Keywords: Industry-Education Integration; Faculty Teaching Innovation Teams; Cruise Interior Outfitting Technology; Digital-Intelligent Empowerment; School-Enterprise Collaboration; Vocational Education.

1. INTRODUCTION

A high-quality teaching workforce is a critical foundation for vocational education to support the development of a modern industrial system. The Outline for Building a Strong Education Nation (2024–2035) calls for improving the training and enterprise practice systems for vocational education teachers and enhancing the development of "dual-qualified" teaching teams [1]. The 15th Five-Year Plan for National Economic and Social Development of the People's Republic of China identifies the R&D, design, and manufacturing of large cruise ships as a key priority in major technical equipment development [2], while the 15th Five-Year Plan for Education Development further clarifies the goal of advancing the "New Double Excellence" initiative in vocational education, targeting both high-level institutional capacity and high-quality industry-education integration [3][4]. In 2026, the Ministry of Education issued the Opinions on Deepening the Reform of Key Elements in Vocational Education Teaching, deploying systematic reforms centered on specialties, curricula, teaching materials, faculty, and internships and practical training [5]. These policy shifts signal that the construction of faculty teaching innovation teams must move beyond mere personnel assembly and conventional school-enterprise cooperation. Instead, teams should be oriented toward authentic industrial tasks and develop synergistic mechanisms that integrate teaching, R&D, practice, and services.

Existing research has examined the development of faculty teaching innovation teams in vocational colleges from the perspectives of team structure, collaborative mechanisms, teacher development, and chain-based construction [6–8]. However, for interdisciplinary domains such as cruise interior technology—which simultaneously encompasses cultural creativity, spatial artistry, marine engineering, and safety compliance—construction frameworks grounded in specific professional contexts remain scarce. This paper takes the teaching practices of the School of Cruise and Art Design at Jiangsu Maritime Institute as a case study, adopting a research approach that combines policy text analysis, job task analysis, and practical induction. It focuses on addressing such

questions as who constitutes the team, around what tasks collaboration should be organized, how digital and intelligent technologies can be leveraged, and how construction quality should be evaluated, ultimately formulating a faculty teaching innovation team development plan oriented toward the cruise industry chain.

2. LOGIC AND OBJECTIVES OF TEAM BUILDING IN THE CONTEXT OF INDUSTRIAL TRANSFORMATION

2.1 Job Competency Restructuring Driven by Domestic Cruise Ship Construction

Cruise interior outfitting is by no means a mere spatial decoration activity; rather, it is a comprehensive undertaking that runs through cultural positioning, scenario planning, spatial design, material selection, detail development, construction coordination, and experience evaluation. In May 2026, China's second domestically built large cruise ship, "Adora Flora City," completed its sea trial, and the domestic substitution of key engineering packages such as balconies and deck coverings continued to advance, indicating that China's domestic cruise ship industry is gradually shifting from exploratory first-of-a-kind construction toward serial construction and industrial chain coordination [9]. The practice of Shanghai Construction Group's participation in the interior outfitting of this ship further demonstrates that modular interfaces, lean prefabrication, digital twin modeling, and the application of green materials have become important development directions for cruise interior outfitting engineering [10]. Consequently, teachers in the program must simultaneously understand aesthetic expression, engineering logic, and the requirements of industrial coordination.

From the practical perspective of program development, teachers from art and design backgrounds may have an insufficient grasp of ship regulations, material performance, and construction processes, while teachers from engineering backgrounds need to strengthen their capabilities in spatial aesthetics, cultural narrative, and user experience design. As the interior outfitting of large cruise ships increasingly moves toward the integration of modularization, green development, digitalization, and the expression of Chinese culture, a single knowledge background can hardly cover the complete task chain, and structured cross-disciplinary and cross-enterprise teams have become a practical necessity.

2.2 Building a Teacher Competency Map for Cruise Interior Outfitting Technology Positions

Based on typical job tasks such as cruise interior outfitting technology, construction detail development, materials and craftsmanship, and site management, teacher competencies can be divided into five interrelated dimensions (Figure 1): cultural aesthetics and spatial narrative competence, covering maritime culture, the translation of Chinese cultural elements, and brand scenario design; engineering technology and standards application competence, covering cabin layout, fire compartmentation, material compliance, structural details, lightweighting, and construction interface control; digital design and intelligent application competence, covering three-dimensional modeling, BIM collaboration, digital twins, and generative-AI-assisted design; project organization and school-enterprise collaboration competence, covering task decomposition, teamwork, and on-site communication; and curriculum development and teaching evaluation competence, covering work-process-systematized curriculum design, modular teaching, and the diagnosis of learning outcomes.

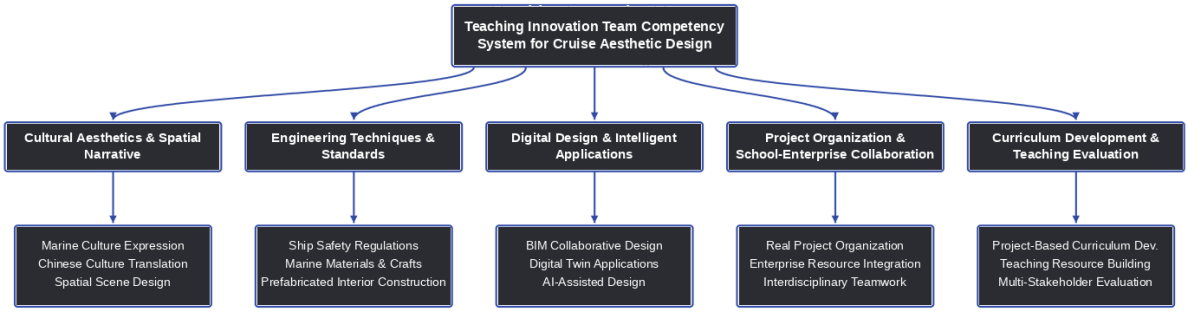

Figure 1: Competency Structure of the Teaching Innovation Team of Cruise Aesthetic Design Teachers

2.3 Formulating Actionable and Evaluable Team Building Objectives

Team building objectives should shift from vague formulations such as "internationally advanced" and "industry benchmark" to concrete, executable tasks: optimizing the mixed school-enterprise personnel structure and

establishing dual-leader and project community mechanisms; developing modular courses and authentic cases corresponding to job tasks; enhancing teachers' competence in enterprise practice, digital design, and standards application; improving on-campus and off-campus practice platforms; and establishing continuous tracking and joint evaluation systems. Claims concerning regional demonstration, industry influence, and contributions to standards should be substantiated by published outcomes or third-party recognition.

3. MULTI-STAKEHOLDER COLLABORATIVE GOVERNANCE AND TEAM OPERATION MECHANISMS

3.1 Building a Collaborative Governance Structure Involving Schools, Enterprises, and Professional Platform

Relying on the CSSC Industry College and the Skills Inheritance and Innovation Platform for Cruise Interior Outfitting Technology, a collaborative governance structure with the joint participation of the school, enterprises, and the professional platform has been established. The school is responsible for formulating talent training programs, developing curriculum standards, organizing teaching, and managing quality; enterprises provide professional support in terms of job requirements, authentic projects, engineering standards, and practice conditions; and the professional platform undertakes functions such as teacher development, resource integration, technical exchange, and the transformation of outcomes. On this basis, a "six-joint" mechanism of "joint research on standards, joint development of programs, joint cultivation of talent, joint management of certification, joint promotion of employment, and win-win cooperation" has been established. Relying on the Cooperative Working Committee for the Education and Training of Cruise Engineering Talent, and through joint deliberation, project initiation, task assignment, and phased review, the school and enterprises jointly formulate talent training programs, develop professional courses, and carry out practical teaching, so that collaborative governance is implemented throughout the entire process of project implementation and teaching operation, promoting the effective alignment of the education chain and the talent chain with the industry chain and the innovation chain [11].

3.2 Improving the School-Enterprise Joint Training Mechanism Under the Premise of Compliance

When order-based training is explored for positions such as cruise interior outfitting technology and on-site engineering, the relevant regulations on enrollment, student status management, and student internships in vocational colleges must be strictly observed. On the basis of the school's lawful completion of enrollment and admission, enterprises participate in job orientation, talent selection, the deliberation of training programs, project guidance, and job practice, forming a collaborative training relationship of "school-led education, in-depth enterprise participation, and platform support." Enterprise participation in selection mainly serves the formation of order-based classes, job matching, and the diversion of training pathways after lawful admission, and does not alter the school's authority over enrollment management.

3.3 Establishing a Project Operation System with Clear Tasks and Well-Defined Responsibilities

An operation mechanism with authentic projects as the basic unit has been established, in which the on-campus program leader and the enterprise technical director jointly determine the annual construction tasks and organize cross-disciplinary project teams around curriculum development, case selection, teacher practice, technical services, and student project guidance. Each project specifies its task objectives, division of responsibilities, implementation cycle, quality standards, and ownership of outcomes, and is supported by systems for school-enterprise cooperation agreements, project review, intellectual property protection, data security, student practice safety, and outcome sharing, thereby reducing the dependence of team collaboration on personal experience and cooperation.

3.4 Improving Incentive, Support, and Continuous Improvement Mechanisms

Enterprise practice, collaborative teaching, curriculum development, participation in engineering projects, and technical services are incorporated into the recognition of teachers' workload and their annual evaluation, and a working mechanism in which on-campus teachers and enterprise mentors jointly prepare lessons, provide guidance, and conduct evaluation is being explored. In accordance with the Ministry of Education's requirements for the construction of teaching innovation teams of vocational college teachers, the proportion of "dual-qualified" teachers in the team, the duration of enterprise practice, modular curriculum development, and the construction of

school-enterprise communities can be adopted as institutionalized observation indicators [12], promoting the shift of team operation from activity-driven to rule-driven.

4. STRUCTURED TEAM FORMATION AND TEACHER COMPETENCY DEVELOPMENT

4.1 Cross-Disciplinary and Cross-Position Collaboration as the Principle of Team Formation

Team formation should follow the principles of "combining full-time and part-time staff, cross-boundary collaboration, complementary division of labor, and dynamic development," break through the boundaries of traditional single-discipline teaching and research offices, and coordinate teacher resources in such fields as cruise interior outfitting technology, art design, interior design, naval architecture and marine engineering, engineering management, and digital technology. According to project type, engineering and technical personnel from shipbuilding enterprises, cruise interior outfitting enterprises, design institutions, and material suppliers are recruited to participate in teaching, forming a structured team of "full-time on-campus teachers + enterprise industry mentors + professional platform support staff" [7][13].

4.2 Establishing the School-Enterprise "Dual-Leader" and Industry Mentor Mechanism

A "dual-leader" mechanism involving both the on-campus program leader and the enterprise technical director has been established: the on-campus leader focuses on program development, curriculum organization, teaching research, and the quality of talent cultivation, while the enterprise leader focuses on job standards, project requirements, engineering processes, and technological updating. Relying on cooperation resources with enterprises such as China Merchants Heavy Industry, Shanghai Waigaoqiao Shipbuilding, and Shanghai Construction Decoration, the on-site engineer program for cruise interior outfitting implements a coordinated configuration of "one project, one course" and "one industry mentor paired with one school teacher," promoting the in-depth participation of enterprise mentors in curriculum development, project guidance, and teaching evaluation. At present, part-time teachers from the front line of enterprises account for 42% of all full-time and part-time teachers in the industry college; Liu Jun, a senior engineer of Shanghai Waigaoqiao Shipbuilding Co., Ltd. who participated in the interior outfitting design and construction of China's first domestically built large cruise ship "Adora Magic City," has been appointed as an industry professor and, together with enterprise technical backbones, undertakes tasks such as explaining engineering standards, guiding course projects, and providing practical training for teachers. By clarifying the division of responsibilities and modes of collaboration between the two parties, enterprise mentors have been transformed from participants in occasional lectures into co-responsible actors in curriculum implementation and talent cultivation.

4.3 Optimizing the Combined Full-Time and Part-Time Personnel Structure According to Task Modules

Functional modules, covering aesthetics and cultural design, space and cabin design, materials and construction technology, digital modeling and intelligent application, and project management and quality evaluation, are set up around authentic work tasks. Backbone teachers undertake curriculum system design and cross-module coordination; young teachers, under the joint guidance of enterprise mentors and on-campus mentors, participate in project implementation, resource development, and teaching research; and enterprise technical backbones are responsible for providing engineering cases, reviewing standards, and offering practical guidance. Team members are not simply divided according to administrative affiliation; instead, dynamic project groupings are formed on the basis of task fit and competency complementarity.

4.4 Forming a Tiered and Progressive Pathway for Teacher Practice and Development

Following the approach of "program leaders providing guidance, backbone teachers tackling key problems, young teachers growing, and enterprise mentors collaborating," the echelon structure has been improved, and a tiered, progressive teacher development pathway has been formed through school-enterprise mutual appointment, enterprise practice, joint teaching research, engineering project review, and cross-disciplinary workshops (Figure 2). The Ministry of Education requires that priority be given to guaranteeing enterprise practice for teachers of innovation teams, with a cumulative annual duration of no less than one month [12]. Enterprise practice can therefore be combined with curriculum updating, case transformation, and teaching reflection, so as to prevent practice activities from remaining at the level of visits and observation tours.

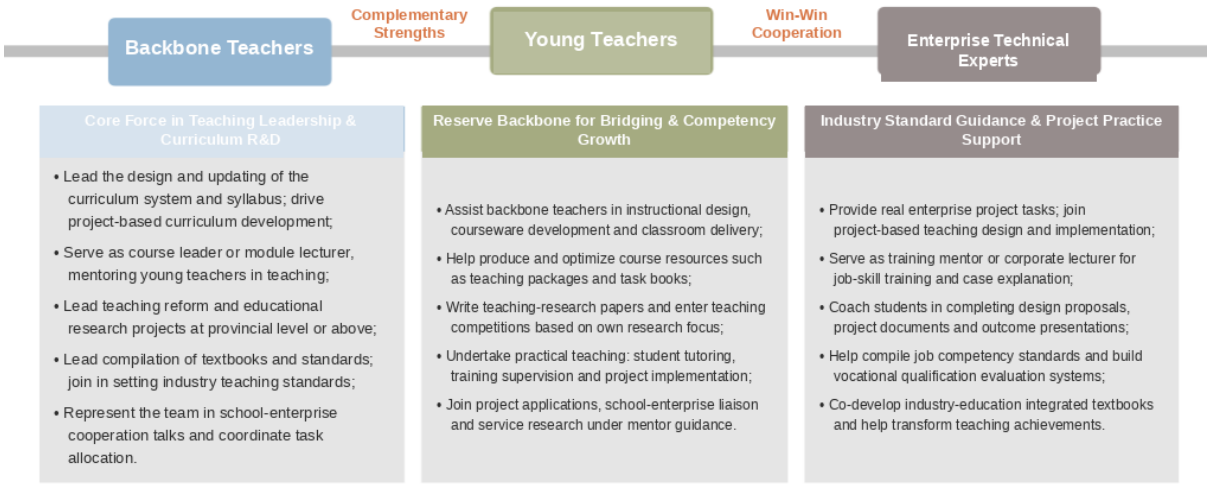

Figure 2: Tiered Collaboration Mechanism of the Teaching Innovation Team of Cruise Interior Outfitting Technology Teachers

4.5 Strengthening Teacher Ethics, the Craftsman Spirit, and Technology Ethics

Team culture building should integrate teacher ethics and conduct, the craftsman spirit, maritime culture, and professional ethics into the entire process of joint lesson preparation, project review, and student guidance. At the same time, in response to the copyright disputes, bias, information leakage, and technological dependence that AI-assisted design may entail, a responsibility boundary of "technology serving teaching, teachers retaining judgment, and key outcomes subject to manual review" has been established, promoting the aligned development of professional competence enhancement and value guidance in education.

5. IMPLEMENTATION PATHWAYS FOR THE REFORM OF KEY TEACHING ELEMENTS

In view of the interdisciplinary, regulation-intensive, and highly collaborative characteristics of cruise interior outfitting positions, and around the five key elements of program, curriculum, teaching materials, teachers, and internship and practical training [5], an implementation pathway of "job demand analysis, curriculum and project restructuring, dual-base collaborative practice, digital-intelligence empowerment, and multi-stakeholder evidence-based evaluation" has been constructed, embedding team building into the entire process of talent cultivation.

5.1 Restructuring the Curriculum System and Training Model Based on the Job Task Chain

In light of the requirements of positions related to cruise interior outfitting technology, the school and the enterprises have sorted out the tasks involved in actual work, such as spatial design, three-dimensional modeling, material selection, detail development, and construction management, and have adjusted course content and teaching arrangements accordingly. A "2+0.5+0.5" school-enterprise collaborative training model is implemented, incorporating job orientation, project training, and industry-education integration courses into different learning stages, with teaching reasonably scheduled according to the progress of enterprise projects and the school's teaching plan.

Course offerings are based on actual job requirements. Courses such as Design of Cruise Public Areas and Accommodation Cabins, Reading and Drawing of Cruise Interior Outfitting Drawings, Detailed Design of Cruise Interior Outfitting Construction Drawings, Cruise Interior Outfitting Technology, and Cruise Interior Outfitting Project Management are interconnected, enabling students to understand the complete process of cruise interior outfitting projects from design to construction. At the same time, fire protection requirements for marine materials, prefabricated structures, green design, barrier-free and age-friendly design, and cultural expression in cruise spaces are taught in conjunction with specific projects. Newly introduced technologies, processes, and industry standards are jointly reviewed by school teachers and enterprise technical personnel to ensure that the teaching content conforms to actual job requirements.

5.2 Building On-Campus and Off-Campus "Dual Bases" and Authentic Project-Based Teaching Scenarios

The college conducts practical teaching by relying on its on-campus training base and off-campus partner enterprises. The on-campus training base covers an area of approximately 12,000 m² and houses an international cruise comprehensive training center, a project-based teaching workshop for cruise interior outfitting technology, and a comprehensive aesthetic education practice base; a virtual simulation training platform for large cruise ship interior outfitting and its six subsystems have been jointly developed with enterprises. Partner enterprises have also participated in the construction of two "1+X" cruise interior outfitting craftsmanship training rooms, equipped with facilities such as a standard cruise demonstration cabin, a materials and craftsmanship cabin, and a cruise lounge. In accordance with course content, teachers organize students to carry out spatial surveying, cabin layout, material identification, detail analysis, and construction drawing preparation, and, in conjunction with the actual projects of cruise shipbuilding enterprises, interior outfitting enterprises, and design institutions, arrange for students to participate in engineering observation and on-site practice, so that on-campus learning is aligned with the job requirements of enterprises.

Given the strict management of cruise ship construction sites and the commercial confidentiality involved in some projects, teachers carry out the necessary processing of the drawings and engineering materials provided by enterprises, transforming actual engineering content into teaching cases by such means as disassembling demonstration cabins, restoring structural details, and conducting virtual simulation. The whole-process virtual simulation training base for the cruise industry was selected as a 2022 Jiangsu Provincial Demonstration Virtual Simulation Training Base cultivation project, providing practical conditions for teaching tasks for which direct access to construction sites or repeated operation is difficult. Before enterprise projects are introduced into the classroom, the relevant materials should undergo security, intellectual property, and confidentiality review.

5.3 Empowering Teaching Innovation with Generative Artificial Intelligence

In accordance with the Opinions on Accelerating the Digitalization of Education and the "AI + Education" Action Plan [14][15], the cruise interior outfitting technology team can explore the construction of a digital-intelligence teaching system of "professional knowledge base + intelligent tools + project scenarios." In the early design stage, generative AI is used to assist user profile analysis, cultural theme planning, and design conception; in the detail development stage, spatial layout deduction and the expression of structural details are carried out in combination with BIM and parametric design; and in the study of materials and standards, professional knowledge retrieval on the performance of marine materials, fire protection requirements, construction technology, and enterprise cases is organized through methods such as retrieval-augmented generation.

The introduction of digital-intelligence technologies should aim at solving teaching and engineering problems, and generated results must not be directly equated with design conclusions that meet the requirements of classification societies. Teachers need to conduct standards checks, copyright checks, and factual verification of model outputs, and to establish systems for the graded authorization of enterprise drawings, the desensitization of sensitive data, the recording of tool usage, and the manual confirmation of key decisions. At the same time, prompt design, professional judgment, digital ethics, and human-machine collaboration are incorporated into teacher training, so as to implement the policy requirements for digitally empowered teacher development [16].

5.4 Promoting Technical Services and Resource Co-Construction Through Joint R&D

Relying on the Skills Inheritance and Innovation Platform for Cruise Interior Outfitting Technology, teachers' teaching research is organically connected with the actual needs of enterprises, and collaborative research is carried out in such areas as cruise public space design, modular cabin construction, the application of marine decorative materials, maritime cultural narrative, digital teaching material development, and enterprise training. Enterprise-commissioned horizontal projects, provincial-level scientific research projects, intellectual property, and standards development outcomes are managed by category according to project source, approval level, and type of outcome. For credit mutual recognition standards, curriculum standards, or training outcomes that have been formed, the issuing body, scope of implementation, and verifiable materials should be clearly specified, and an outcome application chain of "project demand, joint R&D, curriculum transformation, and social service" has been established [17].

5.5 Establishing a Multi-Stakeholder, Whole-Process Evidence-Based Evaluation Mechanism

Team building and teaching effectiveness are jointly evaluated by on-campus teachers, enterprise mentors, students, and third-party experts. On-campus teachers mainly examine curriculum implementation and students' learning performance; enterprise mentors focus on project completion quality, job adaptability, and the mastery of professional standards; students reflect their learning process through phased presentations and project records; and third-party experts may review curriculum standards and teaching outcomes.

Teacher evaluation covers the proportion of "dual-qualified" teachers, the duration of enterprise practice, school-enterprise co-teaching, curriculum development outcomes, and participation in enterprise projects; student evaluation mainly examines drawing preparation, detail treatment, material selection, project completion quality, and feedback from enterprise mentors. According to relevant policies, the proportion of "dual-qualified" teachers should be no less than 50%, and teachers of innovation teams should participate in enterprise practice for a cumulative total of no less than one month per year [12]; the specific situation is verified through school personnel records, enterprise practice certificates, and annual assessment records.

Evaluation should draw on curriculum standards, teaching logs, student works, enterprise project records, and graduate follow-up to continuously ascertain the effectiveness of team building and talent cultivation. For content for which complete statistical data are not yet available, unfounded formulations such as "significant improvement" should be avoided, and relevant evidence should be supplemented through follow-up surveys and long-term tracking.

6. DISTINCTIVE INNOVATION AND QUALITY IMPROVEMENT IN TEAM BUILDING

6.1 Integrating Artistic Aesthetics, Engineering Standards, and Cultural Expression

Compared with general interior design teacher teams, the core feature of the cruise interior outfitting technology team is that aesthetic expression must be considered in step with ship engineering constraints. Taking the design task of a cruise dining space or an accommodation cabin as an example, the teacher team must jointly address issues such as cultural themes and brand positioning, spatial functions and passenger flow organization, fire compartmentation and evacuation requirements, the selection of marine materials, prefabricated detail construction, and construction accessibility. Project-based teaching can be jointly implemented by art design teachers, interior outfitting technology teachers, and enterprise engineers, achieving collaborative education through "design conception, standards verification, detail development, and implementation feedback."

Around the core courses of the program, the school and the enterprises jointly distill typical tasks and develop project-based teaching modules. The International Convention for the Safety of Life at Sea (SOLAS), the 2010 International Code for Application of Fire Test Procedures (2010 FTP Code), the relevant rules of China Classification Society, and enterprise engineering standards are organically integrated into the teaching content, guiding students to understand the constraint relationships among cruise interior outfitting technology, material performance, safety requirements, and engineering implementation, and forming a learning community with the collaborative participation of teachers, students, and enterprises (Figure 3) [18].

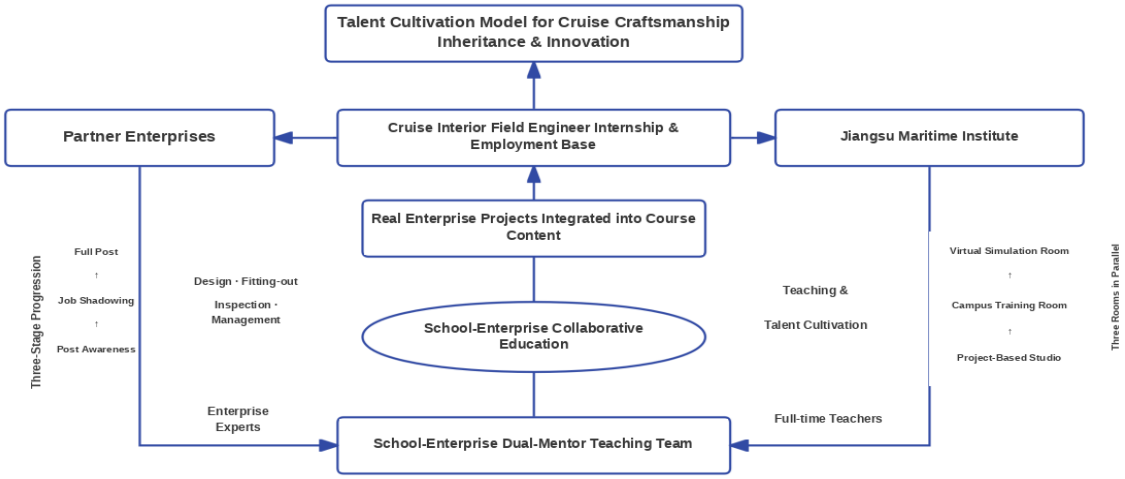

Figure 3: School-Enterprise Collaborative Education System Oriented Toward Authentic Projects

6.2 Carrying Whole-Process Practical Teaching on a Digital-Physical Integration Platform

Relying on the existing on-campus comprehensive simulation training resources for cruises and off-campus engineering practice conditions, demonstration cabins, material samples, construction details, three-dimensional models, and virtual simulation scenarios are connected into a continuous teaching chain. Platform construction focuses on the pedagogical transformation of authentic engineering data, the mutual verification of virtual training and physical operation, and the alignment of on-campus outcomes with enterprise technical standards. Organizing practice around modules such as cabin wall panels, ceilings, deck coverings, prefabricated sanitary units, and fixed furniture helps to improve the match between teaching scenarios and the actual work process of cruise interior outfitting.

6.3 Promoting the Coordinated Development of Teacher Growth, Technology R&D, and Social Services

Relying on school-enterprise cooperation projects, teachers are organized to participate in design seminars, construction technology exchanges, material selection, and on-site quality analysis, and the cases formed during enterprise practice are transformed into course tasks and teaching material content, and training resources. In response to the needs of industry development, consulting on cruise interior outfitting technology, training in construction drawing detail development, training in marine materials and craftsmanship, and continuing education for enterprise employees are carried out in an orderly manner. Cooperation involving international cruise companies, overseas institutions, or industry experts should specify the cooperating parties, modes of implementation, and boundaries of outcomes through formal agreements, course records, and authorized materials, thereby enhancing the standardization of resource introduction and project operation.

6.4 Establishing a Traceable and Verifiable Quality Assurance Mechanism

Teaching quality management is coordinated under the educational philosophy of "all members, the whole process, and all aspects," with program development, curriculum implementation, teacher development, and enterprise feedback incorporated into the same improvement system. An annual diagnostic mechanism has been established around team structure, school-enterprise collaboration, project-based teaching, student development, and industry service, forming a closed-loop correspondence among construction objectives, process records, phased evaluations, and rectification plans. Outcomes such as curriculum reform, student competitions, employment quality, and enterprise satisfaction should be supported by formal statistical definitions, continuous tracking records, and traceable materials, so as to enhance the credibility and wider applicability of the case study.

7. CONCLUSION

Against the backdrop of the accelerated improvement of the domestic large cruise ship industry chain, the continued advancement of the "new double high-level" initiative in vocational education, and the deep integration of artificial intelligence into education and teaching, the construction of a teaching innovation team of cruise interior outfitting technology teachers needs to break through single-discipline organization and loosely coupled school-enterprise cooperation, and to shift toward a collaborative education system that is driven by authentic job tasks, supported by cross-disciplinary teams, enabled by digital-intelligence technologies, and safeguarded by evidence-based evaluation. Drawing on the relevant practices of Jiangsu Maritime Institute, this paper proposes an organizational model of "school-enterprise dual leaders, cross-disciplinary mixed team, and authentic project community" and forms an implementation pathway connecting job analysis, curriculum restructuring, dual-base practice, digital-intelligence empowerment, and pluralistic evaluation. The significance of this case lies in revealing the mechanism of association among artistic aesthetics, ship engineering, and organizational innovation in vocational education in the field of cruise interior outfitting technology, rather than in directly demonstrating universally applicable causal effects on the basis of a single case. Follow-up research should combine long-term tracking data and multi-institution comparisons to further test the actual effectiveness of this team building model in talent cultivation, teacher development, and industry service.

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