Journal of Research in Science and Engineering (JRSE)
ISSN: 1656-1996 Volume-7, Issue-11, November 2025
DOI: 10.53469/jrse.2025.07(11).11

Modular Teaching Reform Practice of Cruise Ship Catering Service Based on Post Competency

Xiaowei Zhang, Rui Jiang

School of Cruise and Art Design, Jiangsu Maritime Institute, Nanjing, Jiangsu, China

Abstract: ***Under the expansion of the cruise industry, the disconnect between traditional catering education and job competency requirements has become increasingly prominent. Rooted in deconstructing the competencies required for cruise ship catering service positions, this study explores modular teaching reform pathways. Firstly, through corporate research and task analysis, we extracted a three-dimensional competency system encompassing foundational service capabilities, specialized service capabilities, and integrated competencies for cruise ship catering roles. Secondly, we constructed a multi-tier modular framework supported by loose-leaf textbooks, VR service simulation systems, and enterprise case resource packages. Finally, we implemented dual-track teaching combining "task-driven and scenario simulation" with "on-campus training and cruise enterprise internships", while innovating a multi-dimensional evaluation mechanism. This research provides a qualified closed-loop paradigm for teaching reform in cruise-related majors, facilitating precise alignment between vocational education and industrial demands.***

Keywords: Cruise Catering Service, Post Competency, Modular Teaching, Teaching Reform, Vocational Education.

1. Introduction

Under the background of cruise industry recovery and intelligent upgrading, the requirements for talents' composite capabilities in cruise ship catering services continue to rise. However, traditional vocational college cruise catering education faces three major dilemmas: teaching content is disconnected from cruise reality, with service process cases mostly transplanted from hotel scenarios and lacking authentic cruise contexts; teaching methods are dominated by theoretical lectures, with practical training accounting for less than 30%, resulting in prominent shortcomings in students' service capabilities; evaluation mechanisms emphasize written tests and single skill operations, neglecting soft skills such as service innovation and cross-cultural communication, which are misaligned with cruise enterprises' talent standards. Existing research pays insufficient attention to cruise catering education and lacks full-process capability deconstruction. Starting from deconstructing the competencies required for cruise catering service positions, this study extracts a three-dimensional competency system through corporate research and task analysis; takes deep reconstruction of modular teaching as the pathway to build a multi-tier modular framework and develop resources including loose-leaf textbooks and VR service simulation systems; and optimizes teaching evaluation as a guarantee to innovate dual-track teaching and multi-dimensional evaluation mechanisms, forming a complete research chain. It provides a replicable paradigm for teaching reform in cruise-related majors, facilitating precise alignment between vocational education and industrial upgrading demands.

2. Research Background and Problem Formulation

2.1 Competency Gaps in Catering Talents Under Cruise Industry Expansion

The global cruise industry has entered a recovery and intelligent upgrading cycle, with its market size exceeding $150 billion in 2023. Following the resumption of cruise operations in China, annual passenger throughput has surpassed 3 million trips (data source: China Cruise Development Report 2023) [1]. As a core experiential component of cruises, catering services demand high composite capabilities from practitioners. They must not only master cruise-specific service procedures for multi-national guests but also proficiently operate intelligent equipment such as ordering systems and inventory management platforms. However, current catering talent development in vocational colleges generally exhibits capability shortfalls. Some students can only recite service theories but struggle to formulate catering contingency plans during cruise public health emergencies. While proficient in Chinese cuisine techniques, they are ill-equipped to design cross-cultural menus for cruise-themed galas. This "knowledge-action" gap fundamentally stems from industrial technology iteration outpacing teaching content updates, creating a structural mismatch between talent supply and cruise enterprises' demands for "precision service and smart operations."

2.2 Adaptability Challenges Between Traditional Teaching and Cruise Catering Job Competencies

Traditional vocational cruise catering education faces adaptability challenges across three dimensions: content, methodology, and evaluation. In terms of content, teaching materials lag behind industrial transformations: while smart restaurant penetration exceeded 60% in cruises by 2023, most textbooks still rely on hotel catering cases, lacking authentic scenarios such as "cruise VIP dining service standards" and "offshore catering customization procedures." Methodologically, instruction emphasizes theoretical lectures and isolated skill training, with practical training accounting for less than 30% of the curriculum. Students exhibit prominent capability gaps where they "memorize service procedures but fail to handle emergencies," such as addressing religious dietary restrictions for foreign passengers by accurately applying cross-cultural service knowledge. In terms of evaluation, assessments prioritize written exams and isolated skill demonstrations, neglecting soft skills like service innovation and teamwork, which conflicts with cruise enterprises' "experience-first" talent standards. This

disconnect between "teaching supply" and "industrial demand" fundamentally arises from traditional education systems failing to anchor on cruise catering's "full-process, full-scenario, full-skill" competency development logic, leading to "inefficient involution" in talent development.

3. Core Concepts and Theoretical Framework

3.1 Connotation Analysis of Post Competencies

Post competencies in cruise ship catering services refer to the core set of capabilities required for practitioners to accomplish job tasks. From a compositional perspective, these competencies encompass both service process execution capabilities (e.g., "reservation reception → in-service support → special needs handling → post-service cleaning") and cross-cultural communication skills when interacting with international passengers (e.g., understanding religious dietary restrictions, providing basic service guidance in multiple languages). They also require emergency response capabilities for scenarios such as "passenger sudden allergies" or "equipment failures" (e.g., rapidly activating backup meal plans, coordinating medical resources). Dynamically, these competencies evolve with industrial upgrades: early career stages emphasized "standardized services," while contemporary requirements include new capabilities like "smart dining system operations" and "green catering cost control." As professionals advance from "basic service roles" to positions such as "banquet planners" or "catering supervisors," competency requirements exhibit a staircase-like progression [2].

3.2 Theoretical Framework of Modular Teaching

Modular teaching is an instructional model that decomposes teaching content into interconnected yet independent task modules. Its essence is characterized by three features: first, task orientation, where each module corresponds to authentic cruise catering work scenarios (e.g., the "VIP banquet service module" focuses on high-end client needs); second, competency-based design, with module objectives directly aligned with post-competency development (e.g., the "cross-cultural service module" trains multilingual communication and religious taboo management); third, flexible reconfiguration, enabling rapid module content adjustments based on new cruise enterprise demands (e.g., adding a "vegetarian catering customization module" to address health dining trends). This model aligns with the logic of post-competency development: dimensions such as "service processes, cross-cultural communication, and emergency handling" can be directly translated into "service process modules, cross-cultural service modules, and emergency response modules," ensuring precise alignment between teaching and competency growth pathways [3].

3.3 Supporting Theories

This study is grounded in the Systematic Work Process Theory and the CDIO Engineering Education Model to construct the competency development logic for cruise catering education. The Systematic Work Process Theory emphasizes that teaching must replicate the "authentic work chain" of cruise catering, requiring students to experience the full workflow of "defining service tasks → designing service solutions → executing service operations → evaluating service outcomes" (e.g., when planning a cruise theme dinner, students participate in menu conceptualization, service route design, and on-site execution). The CDIO model decomposes service processes into four stages: "Conceive - Design - Implement - Operate." Students first "conceive" service ideas (e.g., designing family-themed dining activities), then "design" service details (e.g., table arrangements and interactive sessions), followed by "implementing" service operations, and finally "operating" and optimizing services (e.g., collecting passenger feedback to refine processes).

4. Modular Teaching Design of Cruise Ship Catering Service Based on Post Competencies

4.1 Modular Teaching System Design Logic

The modular teaching system emphasizes a shift from traditional knowledge delivery to competency development. Its core logic lies in two principles: first, transforming teaching objectives from "theory memorization" to "practical ability generation" by aligning with the requirements of the position as waiter; second, establishing a "one-to-one mapping" between teaching modules and job competencies, ensuring each module directly targets specific capabilities like service processes, cross-cultural communication, and emergency handling [4].

4.2 Module Division and Content Reconstruction

The teaching content is divided into three hierarchical modules. The Basic Service Module covers fundamental skills like service etiquette and dining operations; the Specialized Service Module focuses on scenario-specific competencies such as banquet hosting, themed dining, and VIP customer service; the Comprehensive Ability Module integrates advanced capabilities including cross-cultural adaptation, crisis management, and service innovation. Each module progresses from simple to complex, aligning with the improvement of ability of cruise catering positions.

4.3 Modular Teaching Resource Development

Three types of resources support modular implementation: 1) Loose-leaf textbooks integrating real cruise service cases and industry standards, enabling dynamic content updates; 2) Digital resources like VR-simulated cruise restaurants and micro-lessons on service workflows, enhancing immersive learning; 3) Enterprise resource packages containing authorized training materials and service manuals from cruise companies, bridging the gap between academic teaching and industrial practices. These resources collectively create a flexible, industry-aligned teaching ecosystem.

5. Implementation Path of Modular Teaching Reform

5.1 Innovation in Teaching Organization Models

The teaching organization model innovates by integrating

task-driven and scenario-based simulation with on-campus practical training and cruise enterprise internships through dual-track integration. Classroom instruction centers on authentic cruise service tasks, designing specific scenarios such as "VIP banquet reservation conflict resolution" and "theme dinner service route planning," combined with AR technology to recreate cruise restaurant and banquet hall environments. This enables students to master service processes and emergency response capabilities through role-playing exercises. Practical teaching breaks down school-enterprise barriers: preliminary foundational skill training occurs on campus, followed by on-site internships at cruise enterprises where students participate in job rotation under mentor guidance, ensuring seamless alignment between academic and industry service standards [5].

5.2 Diversified Application of Teaching Methods

Teaching methods adopt a multi-modal approach integrating "project-driven learning, immersive scenario training, and blended online-offline instruction." Using "cruise theme dinner service" as a project carrier, students independently complete full-process operations including menu design and service route planning. Scenario-based training simulates cross-cultural service conflicts and religious dietary restrictions to strengthen multicultural communication skills. Online platforms utilize micro-lessons and VR simulation systems for preview and skill extension, while offline sessions focus on hands-on practice, forming a "pre-class, in-class, post-class" closed-loop learning system. Additionally, enterprise case studies such as cruise companies' 2023 service complaint databases are incorporated to enhance students' problem-solving abilities through real-world analysis.

5.3 Reform of Teaching Evaluation Systems

The evaluation framework establishes a "three-dimensional integrated" assessment mechanism: process evaluation uses service process checkpoints and team collaboration performance metrics to dynamically track competency development; outcome evaluation involves cruise enterprise mentors assessing service compliance against real-world job standards; growth evaluation monitors soft skill improvements such as service innovation proposals and cross-cultural problem-solving capabilities. An electronic portfolio system records students' full-process performance, with enterprise mentors contributing 40% of the total scoring weight to ensure evaluation outcomes closely align with industry requirements [6].

6. Conclusions

This study addresses the structural misalignment between catering education and post competencies amid cruise industry expansion. Starting from deconstructing cruise catering service post competencies, we refined a three-dimensional competency framework through in-depth enterprise research and task analysis. A multi-tier modular teaching architecture was constructed, supported by the development of loose-leaf textbooks embedding Royal Caribbean's authentic service cases, VR service simulation systems replicating cruise restaurant workflows, and enterprise resource packages integrating cruise company manuals and training videos. Innovative dual-track teaching methods combining "task-driven, scenario-based simulation" (e.g., cross-cultural service conflict role-plays) and "on-campus training, cruise enterprise internships" were implemented, alongside a diversified evaluation mechanism merging "process evaluation, enterprise mentor certification, and value-added assessment." Teaching practice demonstrated improvements in students' post-skill certification acquisition rates, cruise enterprise internship satisfaction, and curriculum resource utilization, validating the effectiveness of modular teaching in enhancing cruise catering talent-job. In summary, this research provides a closed-loop paradigm of "competency deconstruction, module reconfiguration, and practice implementation" for cruise-related majors, enriching the application of systematic work process theory in service-oriented courses and offering replicable pathways for vocational education to precisely align with industrial upgrading demands. Looking ahead, with the cruise industry's "digital-intelligent upgrading" and "green-low-carbon transformation," teaching reforms need to extend into deeper dimensions: First, accelerate the integration of module contents with emerging technologies and standards such as "AI ordering system operation" and "cruise low-carbon catering cost control," developing "smart service micro-major" modules; Second, expand school-enterprise collaboration boundaries by jointly establishing "virtual-real integrated training bases" with cruise enterprises, upgrading teaching scenarios from "simulated services" to "real project operations" (e.g., full-process contracting of cruise theme dinners), while exploring "cross-disciplinary module combinations" to respond to industry demands for interdisciplinary talents proficient in service, operation, and innovation. Through technological empowerment and cross-sector collaboration, we continuously optimize the alignment and growth of modular teaching with industry needs, injecting new momentum into the sustainable development of cruise vocational education.

Acknowledgement

This paper is sponsored by National Catering Vocational Education Teaching Steering Committee:

Project Title: Construction and Research on Teaching Innovation Teams for Curriculum in Vocational Colleges: A Case Study of Cruise Catering Management Course
Project Code: CYHZW-YB2025039
Project Leader: Zhang Xiaowei

References

[1] Wei Wanyi. Practice and Research on Competition Integration—Taking the Catering Service and Management Course as an Example. China Food Industry, 2024, 06, 146-148.
[2] Ren Xiaoying. Optimization Strategies for Project-Based Teaching in the Catering Service and Management Course in Secondary Vocational Schools. China Food Industry, 2024, 06, 158-160.
[3] Zhang Jun; Xie Cuiying. Reform of the Catering Service and Management Course for Hotel-Related Majors through School-Enterprise Cooperation under the

Background of the Guangdong-Hong Kong-Macao Greater Bay Area. Zhang Jun; Xie Cuiying. China Food Industry, 2025, 02, 171-173.

[4] Qian Guifang. Exploration on the Optimized Design of the Catering Service and Management Course. China Management Informationization, 2014, 21, 105-107.

[5] Gao Huzhenni. Wang Qiuyu. Suggestions for Talent Cultivation in the International Cruise Ship Steward Management Major—Based on the Analysis of the Current Situation and Influencing Factors of Cruise Ship Steward Turnover [J]. Foreign Economic Relations & Trade, 2020, 03, 116-119.

[6] Ma Xiaofei. Wu Mingyuan. Research on the Perceived Image of Chinese Cruise Tourism Based on Text Analysis [J]. Intelligent Computer and Applications, 2020, 01, 117-122.