

Exploration of the Integrated Cultivation Path for Hotel Management Vocational and Technical Talents Based on Competency-based Education

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ABSTRACT

The production-education integration is a necessary path for the high-quality development of vocational education. With the advancement of technology, the opening of tourism policies, and the deepening of cultural and tourism integration, higher requirements have been put forward for vocational and technical talents in the hotel industry. Based on the background of the production-education integration, this study conducts an in-depth analysis of the problems in the cultivation of high-level undergraduate talents in hotel vocational education. Guided by the concepts of competency based education and output oriented education, the study comprehensively analyzes the ability needs of the hotel industry for high-level undergraduate talents, depicts the talent demand portrait and ability map, clarifies the differences in talent cultivation positioning, goals, and curriculum systems corresponding to the three levels of high-level undergraduate talents in vocational education, and proposes an innovative path for the integrated cultivation mode of high-level undergraduate talents against the background of production-education integration.

Keywords: *Production-education integration, Hotel industry, Coherence of secondary and higher education, Vocational and technical talents, Collaborative education.*

1. INTRODUCTION

Vocational education, as a type of education on par with basic education, higher education, and adult education, is characterized by its vocational and practical nature, aiming to cultivate technical and skilled talents that can adapt to economic and social development and market demand, and naturally has the characteristic of production-education integration. The revised "Vocational Education Law of the People's Republic of China" in 2022 clearly stipulates that "vocational education must adhere to the production-education integration, school-enterprise cooperation, market-oriented promotion of employment, practical orientation, and strengthening of abilities". Subsequently, in the "Opinions on Deepening the Reform of the Construction of Modern Vocational Education System", it was explicitly stated that "we must adhere to the principles of promoting production through education, assisting production, integrating

industry and education, and promoting industry university cooperation". The "Outline of the Plan for Building a Strong Education Country (2024-2035)" proposes to "strengthen the city's industry education alliance and the industry education integration community, optimize the layout of vocational education that is coordinated with regional development and connected with industrial layout" for vocational education". It can be seen that the production-education integration is the only way for the high-quality development of vocational education.

With the rapid development of digital technology, various industries are undergoing profound changes, and the hotel industry is no exception, facing a dual transformation of intelligence and high-end. The demand for digital technology application ability, data analysis and decision-making ability, as well as advanced skills such as digital marketing and new media operation for hotel talents is increasingly prominent. At the

same time, the further relaxation of the national visa free policy and the sudden increase in the number of international tourists have raised higher requirements for hotel employees' multilingual and cross-cultural communication skills, international service standards, and compliance awareness. Although the vocational skills talent training system in the hotel industry has been reformed, such as the adjustment of "hotel management" to "hotel management and digital operation" at the vocational level, there is still a lack of clear talent training standards to adapt to the transformation of industry talent needs. There are significant problems in the cultivation of the connection between high and undergraduate education in hotel vocational education, such as overlapping and discontinuous training objectives, lack of vertical coherence in the curriculum system, insufficient depth of school-enterprise integration, and failure to fully demonstrate the characteristics and positioning of vocational education at all levels. Therefore, there is still significant room for improvement in innovating and constructing a talent training system for hotel professionals with local characteristics.

2. THE CURRENT RESEARCH STATUS OF INTEGRATED CULTIVATION OF SECONDARY AND HIGHER EDUCATION IN VOCATIONAL EDUCATION

Although the integrated cultivation of secondary and higher education in China has undergone nearly 12 years of development, there are still a series of problems. Firstly, the lack of equivalence in professional settings and the absence of integrated cultivation standards have made the integrated cultivation path unclear. The vocational education major directory issued by the Ministry of Education in 2021 shows that there are 358 secondary vocational education majors and 744 higher vocational education majors, while there are only 247 undergraduate majors in higher vocational education. The relatively small number of undergraduate level major directories directly leads to the difficulty of connecting some majors in the integration of middle and high vocational education. In 2025, the Ministry of Education will release 758 newly revised (formulated) teaching standards for vocational education majors, including 223 vocational education standards, accounting for 63% of the vocational education professional directory; There are 471 vocational college standards,

accounting for 63% of the vocational college professional catalog; There are 64 vocational undergraduate standards, accounting for 26% of the vocational undergraduate major directory, but the undergraduate teaching standards are still relatively insufficient. At the same time, the lack of integrated cultivation standards for vocational schools, vocational colleges, and vocational undergraduate programs also makes it difficult to provide policy support for integrated cultivation.

Secondly, under the existing training system, there is a serious phenomenon of insufficient theoretical knowledge and skill inversion in the coherence between secondary and higher education. Due to the long-term positioning of secondary vocational education as employment terminal education, the connection ratio between secondary and higher vocational education has been consistently low.^[1] Under the employment orientation, although the skill development of vocational school students is valued, cultural foundation courses and professional theoretical courses are ignored, resulting in limited students' ability for sustainable development. Even if they are promoted to higher vocational education, their cultural course level is often lower than the admission standards, making it difficult for them to adapt to the theoretical depth of higher vocational education. Vocational college students also face the same problem when entering undergraduate programs. However, with the gradual improvement of national education level and the deepening of industrial development technology, the demand for knowledge and skills of talents has further increased. The demand for higher education in secondary and higher vocational colleges is growing day by day, and the original employment-oriented education model is no longer able to meet the needs of the times. Therefore, it is urgent to re-examine and design the positioning of vocational schools, higher vocational colleges, and undergraduate vocational colleges to meet the development requirements of the new era.^[2]

The positioning of talent cultivation goals lacks clear differentiation. There is a phenomenon of ambiguity, repetition, and even misalignment in the talent cultivation goals of vocational schools, higher vocational schools, and undergraduate programs.^[3] To be specific, the distinction between secondary vocational schools and higher vocational schools, and between higher vocational schools and undergraduate schools in the level of professional competence is not clear. This ambiguity is also reflected in the actual operation of

the industry qualification certificate examination.[4][5] Taking the high star hotel operation and management major in secondary vocational schools and the hotel management and digital operation major in higher vocational schools as examples, the job positions that connect the two are highly overlapping, and both focus on service, operation, and management in cultivating talent types, failing to highlight the hierarchical differences between secondary vocational schools and higher vocational schools. The same is true in hotels, where vocational, vocational, undergraduate, and even graduate students often coexist in the same department and position during internships, which can easily lead to a phenomenon where students at higher levels have lower professional identity.

There is a problem of curriculum system disconnection between vocational colleges and applied undergraduate programs at the connection level. The main manifestation is that on the one hand, the two curriculum systems are independent and lack synergy. Vocational and technical education in secondary and higher vocational colleges is guided by vocational abilities and offers a wide variety of majors; In the past, undergraduate education was mainly based on disciplinary divisions, resulting in a deviation in the strategic positioning of vocational colleges and applied undergraduate programs, and insufficient alignment between curriculum system design and training objectives.[6] On the other hand, the effectiveness of curriculum integration urgently needs to be improved. The current curriculum system lacks integrated design and presents a simple "stacking" structure. The curriculum settings between colleges and universities are repetitive, and there is a lack of deep cooperation between schools and enterprises. The coherence of the production-education integration is insufficient, and students' professional experience is fragmented, making it impossible to form a hierarchical and scientific overall training system. [1][3][7]

The driving mechanism, operating mechanism, guarantee mechanism, and regulation mechanism in the integrated cultivation of secondary and higher education are not yet perfect. At present, there are problems with the overall integration of secondary and higher education, such as lagging behind in the construction of standard systems and difficulties in implementation, especially the imperfect standard system, lack of quality assurance mechanisms, and insufficient support and guidance, which seriously

restrict the construction of modern vocational education system.[8]

In summary, there are still a series of problems in the current integrated cultivation of secondary and higher education, such as incomplete top-level design, insufficient participation mechanism and motivation from all parties, unclear positioning and goals of talent cultivation, unclear training standards and paths, overlapping courses and skills inversion. Especially compared with the complete examination and evaluation system and curriculum standard system of junior high school, high school and university in general education, there is still a significant gap in the examination and evaluation system, skills and curriculum standard system between vocational education, higher vocational education and undergraduate education in vocational education, which limits the sustainable development ability of vocational education as a type of education. It is urgent to form a modern vocational education level development system with a complete system connection to improve social trust in vocational education.

3. THE IMPLEMENTATION PATH OF COMPETENCY-BASED EDUCATION AGAINST THE BACKGROUND OF PRODUCTION-EDUCATION INTEGRATION

3.1 The Connotation and Application Status of Competency-based Education

The production-education integration, as a legal characteristic of vocational education, is an important symbol that distinguishes it from general subject education. Industry-oriented talent cultivation is the logical starting point for the integration of secondary and higher education. The differences in talent specifications between different industries, between different job groups within the same industry, and between different levels within the same job group are the basis for the differences in the setting, training specifications, and training paths of higher education majors in vocational education.

Competency-based Education (CBE) is a modern educational concept based on the production-education integration, emphasizing the cultivation of students' vocational abilities as the core. Its core connotation is to meet the talent needs of specific professions or industries. Competency-

based education not only focuses on imparting knowledge and skills, but also emphasizes the cultivation of students' comprehensive vocational abilities, including the cultivation of ideological and moral character, cultural cultivation, professional ethics, professional attitude, professional psychology, professional spirit, business knowledge, and professional skills.[9] It has five characteristics: being student-centered, being career-oriented, modular curriculum, flexible and diverse evaluation methods, and emphasis on school-enterprise cooperation.[10][11][12]

In recent years, competency-based education has been widely disseminated and applied globally, and has become the leading concept of international vocational education reform. For example, Canada integrates competency-based education into all levels of education, promoting the development of vocational education through programs such as employment education, basic skills, applied research, and micro certificates promoted by the Association of Applied Technology and Vocational Colleges (CICan).[10] In the United States, competency-based education has evolved from a vocational training model to a learning method applicable to overall higher education. By deconstructing the traditional hours-based education system and awarding credits, degrees, and diplomas based on learners' demonstrated abilities, a learner-centered education model has been reconstructed.[11] The integration of competency-based education (CBE) and output-oriented education (OBE) with a focus on vocational abilities has become the development direction of vocational education reform and innovation in China. The goal is to clarify learning output standards, reverse design a modular curriculum system supported by abilities, learn, apply knowledge, solve problems in real or simulated vocational environments, and carry out personalized teaching and ability evaluation.[13]

3.2 Implementation Steps of Competency-based Education in the Integrated Cultivation of Secondary and Higher Education

The integration of vocational education output orientation and competency-based cultivation for secondary and higher education requires scientific demonstration and deduction to ensure that the results of talent cultivation match the abilities required by the industry. The first step is to conduct extensive industry research through various

methods such as literature review, expert interviews, questionnaire surveys, job analysis, etc., to clarify the industrial chain, top enterprises, job groups, and job level distribution, analyze the ability requirements of different job groups and job levels, and classify them into levels; The second step is to conduct classification based on the ability level, form a professional talent training layout for the corresponding industry job groups of middle and high school undergraduate students in the same major, that is, clearly distinguish the job groups and job levels in the corresponding industries of secondary vocational education, higher vocational education, and undergraduate education, avoid confusion in training positioning, and adjust the scale of talent training for middle and high school undergraduate students according to the demand for talent in the job groups; The third step is to conduct more accurate demand research on the determined job groups and job levels, draw a specific job group capability map, determine capability dimensions and measurement indicators, form different talent training goals and capability standards for middle and high universities, and determine capability weights based on the frequency of demand research; The fourth step is to reverse design the curriculum system based on the ability modules, and determine the importance (hours and credits) and supporting weights of the courses according to the importance of the ability dimensions; The fifth step is to design and refine the learning objectives, content, methods, and evaluation methods of the course based on the course's ability goals, the actual work process of the position, and the path of ability cultivation; The sixth step is to measure the current status of students' ability development in real time based on the evaluation results of the course, develop a radar chart of each student's ability, identify ability deficiencies, and provide improvement suggestions; The seventh step is to comprehensively evaluate the students' ability formation based on the evaluations of all courses after one training cycle, and continuously improve until the next training cycle.

4. DESIGN OF INTEGRATED CULTIVATION FOR SECONDARY AND HIGHER EDUCATION DRIVEN BY THE PRODUCTION-EDUCATION INTEGRATION: TAKING HOTEL MAJORS AS AN EXAMPLE

4.1 Positioning Design for the Cultivation of Middle and High School Undergraduate Talents Based on the Educational Requirements of Jobs

To analyze the demand for vocational education talents at different levels in the hotel industry, the study selects the best Oriental website (<https://www.veryeast.cn/>) As the collection object of job requirements, on January 21, 2024, through screening at different educational levels, the local hotel talent demand in Hainan was searched. Among them, there were a total of 27 positions with the minimum educational requirements of junior high school, 51 positions with high school, 65 positions with technical secondary school, 244 positions with vocational secondary school, 503 positions with associate degree, 108 positions with bachelor's degree, and 1 position with master's degree. Due to the fact that high school, technical secondary school, and vocational secondary school belong to the same talent training level, a total of 360 positions were merged into vocational secondary schools. According to the research results, it can be found that the demand for vocational talents accounts for the largest proportion, about 50.4%, followed by vocational schools at about 36%, undergraduate programs at about 10.8%, junior high schools at about 2.7%,

and master's programs at about 0.1%. Therefore, in terms of the scale or professional layout of talent cultivation in the hotel management major, vocational education should be the main focus, followed by vocational education and undergraduate education.

Secondly, a survey was conducted on the distribution of positions with different levels of talent demand. It was found that positions with a minimum education requirement of junior high school were mainly distributed in the areas of food and kitchen management, PA in the housekeeping department, laundry room, and linen room, as well as junior positions such as electrical maintenance and security in the engineering department; The minimum educational requirement is for vocational/technical/high school positions, mainly distributed in chef and service positions in the catering department, as well as front desk reception and room service positions in the housekeeping department; The minimum educational requirement for vocational positions has gradually expanded from ordinary service positions to management positions, while the number of positions in marketing, sales, and finance departments has gradually increased; The minimum educational requirement for undergraduate positions is gradually decreasing in operational positions such as catering and housekeeping, while the number of positions in second tier departments such as marketing and sales, human resources, finance, and general office is gradually increasing. The main positions are marketing communication, accounting, front office service, and general manager assistant; The minimum educational requirement for master's degree positions is mainly for management trainees. ("Table 1")

Table 1. Distribution of job requirements by educational level

	Junior high school degree	Secondary vocational school degree	Higher vocational school degree	Undergraduate	Master
Food and beverage department	50.0%	37.9%	20.0%	7.0%	0.0%
Room service department	25.0%	31.0%	20.0%	11.6%	0.0%
Finance department	0.0%	1.7%	12.0%	27.9%	0.0%
Human resource department	0.0%	0.0%	6.0%	9.3%	0.0%
Marketing department	0.0%	4.3%	32.0%	32.6%	0.0%
Engineering department	18.8%	21.6%	4.0%	0.0%	0.0%
Security department	6.3%	2.6%	0.0%	0.0%	0.0%
General Manager Office	0.0%	0.9%	6.0%	11.6%	100.0%

According to the market demand survey results, the majors offered at the secondary vocational level should focus on primary service skill positions such as catering kitchen, catering services, room service, and spa, with the main goal of cultivating future supervisory level employees. The majors offered at the vocational level should focus on catering services and operations, room service and operations, marketing and sales, especially for high-level management positions in operations. The minimum educational requirement for high-level management positions in operations is vocational education, indicating that more emphasis is placed on accumulating practical experience rather than

profound theoretical knowledge, with a focus on cultivating managers and directors in the operations department; At the undergraduate level, it is mainly aimed at second tier management departments such as finance, revenue, human resources, and marketing planning, as well as a small number of management positions in first tier operational departments such as catering services and front office. In terms of talent requirements, it reflects the demand for innovative abilities, such as creative planning and new media operations, with a focus on cultivating managers and directors of hotel management departments. ("Table 2")

Table 2. Career development paths at various educational levels

Educational level	Initial employment department	Initial employment position	Position in 3 years	Position in 5 years	Position of 8-10 years from now
Secondary vocational school degree	Kitchen, catering, guest rooms, spa, engineering, sales	Waiter	Senior waiter, supervisor	Senior manager, deputy manager	Manager, senior manager
Higher vocational school degree	Catering, front office, guest rooms, sales, finance	Waiter, supervisor	Supervisor, senior supervisor	Deputy manager/manager	(Deputy) director of catering/housekeeping, director of operations, general manager
Vocational undergraduate degree	Market sales, finance, human resources, front office, general manager's office	Department specialist	Supervisor/senior supervisor, deputy manager/manager	Senior manager, (deputy) director	Human resources/finance/marketing director, operations director, general manager

4.2 Determination of Cultivation Objectives for Secondary and Higher Education Talents Based on Job Competency Requirements

To further analyze the ability map of professional talents in the high-end hotel industry, an octopus collector was used to crawl the recruitment data of the Best Oriental Website. A total of 1060 data were obtained, 12 duplicate data were removed, and 1051 data were retained. Based

on the results-oriented education concept, talent cultivation goals should be aimed at the knowledge, abilities, and qualities of students 5 years after graduation. The study collected data at the levels of supervisor, manager, director, and general manager, including 461 at the supervisor level, 456 at the manager level, 103 at the director level, and 31 at the general manager level. There are 387 minimum educational requirements, 147 for vocational schools, 425 for associate degrees, and 92 for undergraduate degrees. ("Table 3")

Table 3. Proportion of educational requirements for different job levels

Job levels	No educational background restrictions	Secondary vocational school degree	Higher vocational school degree	Undergraduate
Supervisor	213 (46.2%)	121 (26.2%)	114 (24.7%)	13 (2.8%)
Manager	143 (31.4%)	24 (5.3%)	236 (51.8%)	53 (11.6%)
Director	27 (26.2%)	1 (1%)	54 (52.4%)	21 (20.4%)
General manager	4 (12.9%)	1 (3.2%)	21 (67.7%)	5 (16.1%)

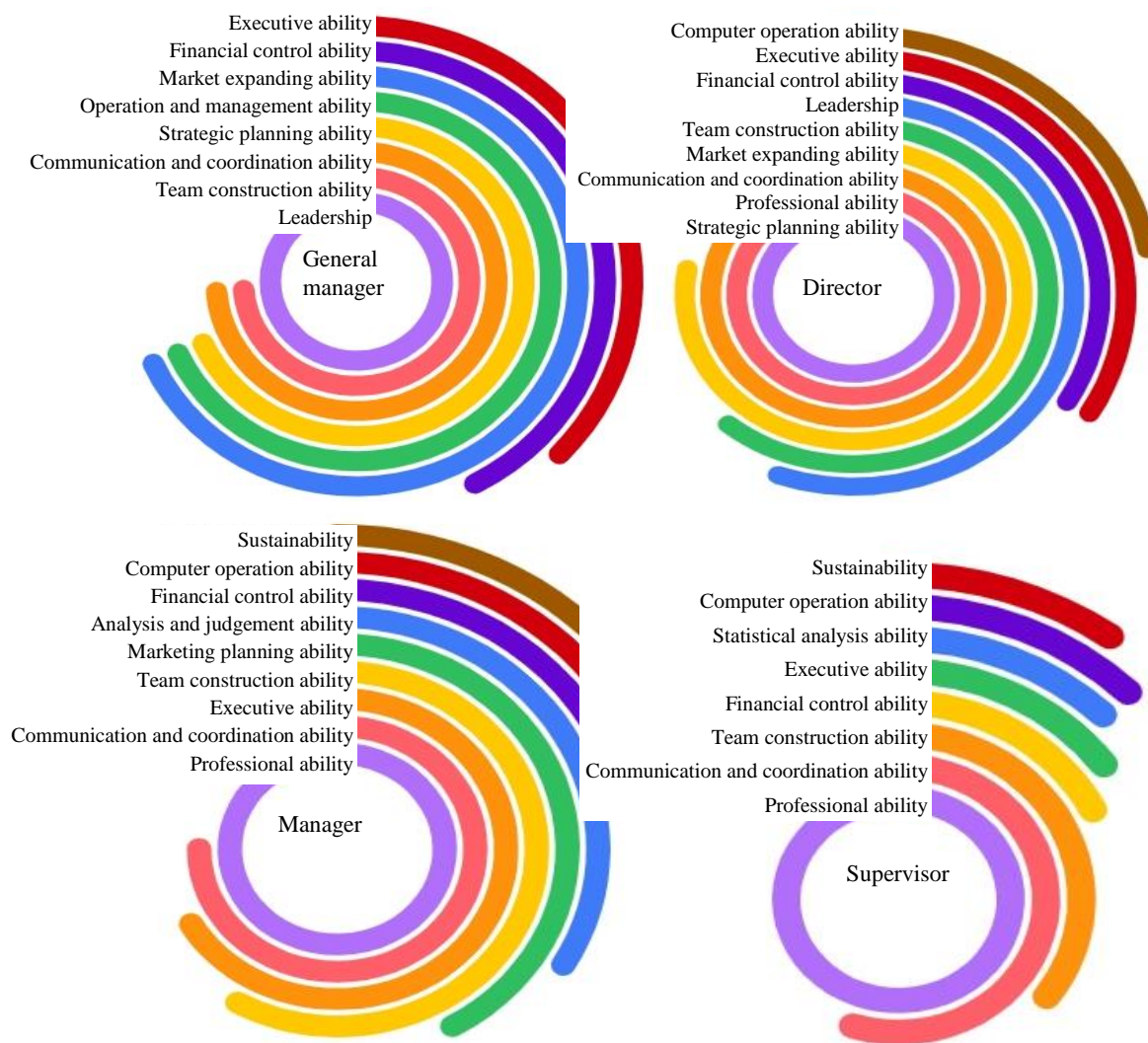


Figure 1 Distribution of core competencies at different levels of the hotel.

The researchers conduct text analysis on job responsibilities and qualifications in the crawled data to obtain a basic competency map of four levels of positions. Although the categories are not significantly different, the focus of different levels is different. For example, leadership skills rank first in general manager level positions, followed by team building skills, communication and coordination skills, strategic planning skills, business management skills, and market development skills; The strategic planning ability of director level positions ranks first, followed by business ability, communication and coordination ability, and market development ability; Business skills rank first in managerial positions, followed by communication and coordination skills, execution skills, and team building skills; Business skills rank first in supervisory positions, followed

by communication and coordination skills and team building abilities.

From the perspective of comprehensive balance of abilities, the abilities of general managers and directors are relatively more balanced, while managers and supervisors focus more on business operations. As the hierarchy increases, the requirements for strategic planning and leadership skills become higher, mainly manifested in the formulation of strategic planning and target plans, research and insight into industry markets, innovation ability and decision-making ability. As the hierarchy decreases, the requirements for business capabilities become higher, mainly manifested in high-quality service capabilities, business supervision capabilities, inspection and problem discovery capabilities, complaint handling capabilities, etc. Communication and coordination

skills, as well as team building abilities, are the core competencies of each level of position, occupying the top four positions. They are mainly manifested in Chinese and English communication and expression skills, organizational and coordination skills, writing skills, as well as team member selection, management, training, motivation, performance monitoring, collaboration, and other aspects. Execution ability is more emphasized at the managerial level, mainly reflected in the execution of target plans and brand quality standards. ("Figure 1")

From the analysis of knowledge possessed at all levels of the hotel, it is found that proficiency in the business processes, hotel rooms, catering and other product information, as well as various policies,

procedures, standards and specifications of the hotel, are required for all positions involved in the hotel. However, the management and director levels have added knowledge requirements such as departmental operation management, human resources, consumer psychology, business management, and industry change. From the analysis of literacy, it is found that a high sense of responsibility is the primary literacy emphasized at all levels, followed by service consciousness, detail consciousness, initiative consciousness, compliance and legality consciousness, team consciousness, etc. At the director and general manager levels, innovative consciousness, career ambition and enterprising spirit, logical thinking, and recognition of corporate culture are added. ("Table 4")

Table 4. Training objectives for vocational and technical talents at different educational levels

Level	Knowledge	Ability	Accomplishment
Secondary vocational school degree	Fundamentals: Being proficient in mastering the business processes, hotel rooms, catering and other product information related to hotel positions, as well as various policies, procedures, standards and specifications of the hotel	Business ability, communication and coordination ability, team building ability, statistical analysis ability, execution ability, financial control ability, computer operation ability, sustainable development ability	Fundamentals: sense of responsibility, service awareness, attention to detail, initiative, professional etiquette, professional image, professional ethics
Higher vocational school degree	Advanced: Departmental operations management, administrative management, human resources, industry development trends, consumer psychology, policies and regulations related to business, etc.	Strategic planning ability, business ability, communication and coordination ability, market development ability, team building ability, analysis and judgment ability, execution ability, financial control ability, computer operation ability, sustainable development ability	Advanced: Legal compliance awareness, team spirit, work enthusiasm, industry passion
Undergraduate	Advanced: Brand hotel management knowledge, national policies and regulations, industry changes and technological progress	Leadership ability, team building ability, communication and coordination ability, strategic planning ability, business management ability, market development ability, financial control ability, strategic execution ability	Advanced: Logical thinking, innovative consciousness, career ambition, enterprising spirit, corporate culture identification

4.3 Curriculum System Organization of Secondary and Higher Education Courses Based on Talent Cultivation Objectives

Based on the capability map and competency focus of each level of the hotel, a preliminary design of the curriculum system for middle, high, and undergraduate courses is carried out. Some of these abilities, such as communication and coordination, market development, team building,

business skills, execution skills, financial control, computer manipulation, etc., are involved at various levels, but the focus is different. Therefore, there should also be differences in curriculum design, such as vocational schools focusing on high-quality service skills in business abilities, while vocational schools focus on operations, supervision, etc. based on this foundation; In terms of market development ability, vocational education focuses on marketing and sales, customer relationship management, while vocational education focuses on brand management,

public relations management, channel management, etc. Undergraduate education focuses on revenue management and new media marketing. The training of talents at different levels of middle and

high school can be adjusted according to the proportion of ability modules, including the number of courses and credit hours, to ensure the achievement of talent training goals. ("Table 5")

Table 5. Curriculum system design based on competency

Ability	Courses that can be offered	Level
Leadership	Entrepreneurship, Introduction to Leadership, Innovation and Entrepreneurship, Logical Thinking, Critical Thinking, Leadership Workshop	Undergraduate
Strategic planning ability	Strategic Management, Industry Trend Research, Business Statistics, Data Analysis and Visualization, Sand Table Simulation, Case Studies	High school, undergraduate
Business management ability	Fundamentals of Management, Principles of Economics, Operations Management, Organizational Behavior, Consumer Behavior, Service Psychology	High school, Undergraduate
Communication and coordination ability	Business Communication, Business English/Hotel English, Cross-cultural Communication, Business Writing, Public Speaking and Eloquence	Middle school, high school, undergraduate
Market development ability	Marketing, Market Research, Public Relations, Customer Relationship Management, Brand Management, Channel Management, Business Negotiation, Revenue Management, Digital Marketing, New Media Marketing	Middle school, high school, undergraduate
Team building ability	Human Resource Management, Corporate Culture, Training Management, Team Project Management, Team Collaboration Practice	Middle school, high school, undergraduate
Executive capability	Fundamentals of Execution, International Hotel Brand Standards, Quality Management and Control, Case Study on Execution	Middle school, high school, undergraduate
Professional ability	Service Etiquette, Professional Image Building, Catering Services, Restaurant Operations, Room Service, Housekeeping Operations, Front Desk Services, Front Desk Operations, Recreational Services, Recreational Operations, Complaint Handling, Hotel Supervision	Middle school, high school, undergraduate
Financial control capability	Cost Control, Hotel Accounting Fundamentals, Financial Statement Analysis, Financial Management	Middle school, high school, undergraduate
Computer operation capability	Office Software Operation, Hotel Management Information System, New Media Technology Application	Middle school, high school, undergraduate
Sustainability	Deep Learning, Time Management, Self-management	Middle school, high school

a Note: The abilities that need to be developed for both middle and high school and undergraduate students vary depending on the emphasis at different levels

5. INNOVATION OF INTEGRATED TALENT CULTIVATION MODEL FOR SECONDARY AND HIGHER EDUCATION BASED ON THE PRODUCTION-EDUCATION INTEGRATION

5.1 Building a Hierarchical Curriculum System with Vertical Connection and Horizontal Integration

Based on the five-level career growth path of "waiter - supervisor - manager - director - general manager" for hotel talents, a four-level curriculum framework of "career cornerstone - quality service - operation management - strategic decision-making" is constructed. The foundation of the profession focuses on basic professional qualities such as morality, intelligence, physical fitness, aesthetics, and labor skills, as well as professional etiquette, image, ethics, and business communication. On this basis, the vocational school stage focuses on standardized training of basic service skills, offering courses in guest room and catering service skills, and connecting with the "Room/Catering Waiter" (Level 4) certification; In the vocational stage, it is necessary to strengthen students' operational management capabilities by offering courses such as front desk, guest room, and restaurant operation management, hotel supervision, hotel management information systems, and service quality management. There is a must to embed industry certifications such as "Golden Key Service," "Golden Service Certification," and "Registered Funds Unemployment Supervision Mentor"; The vocational undergraduate stage focuses on leadership development and strategic innovation, offering courses such as leadership, strategic management, and revenue management, and integrating industry certifications such as "Registered Hotel Senior Professional Manager".

5.2 Establishing a "Credit Bank" to Implement Precise Talent Diversion and Training

Based on the talent demand spectrum of the hotel industry, a "dual dimensional evaluation dual directional diversion" mechanism is established. Students will undergo vocational skill diagnosis and personality testing upon enrollment, and their vocational ability files will be established. Layered training will be carried out according to their vocational skills. Secondary vocational schools and

second year vocational schools will conduct secondary diversion based on their vocational interests and learning outcomes, clarify future career advancement and further education directions, and achieve personalized training through modular curriculum teaching. At the same time, it is a must to establish a "credit bank" that allows students to waive some vocational courses based on their grades in vocational courses, waive some undergraduate courses based on their vocational courses, and waive school courses based on their completed training courses in enterprises, achieving flexible conversion of course credits.

5.3 Relying on the Production-Education Integration Community to Carry out Innovation in Talent Cultivation of Secondary and Higher Education

The production-education integration community includes education entities such as vocational schools, higher vocational schools, and undergraduate programs, as well as industry entities such as enterprises and associations, and government entities such as parks. It is the best platform for achieving integrated talent cultivation in secondary and higher education. Through the production-education integration community, industry standards for integrated talent cultivation between middle and high schools are jointly formulated, and innovation and practice of regional integrated talent cultivation models between middle and high schools are achieved through the city's production-education integration community. Within the same industrial park and top enterprises, there are often three different levels of cooperative entities and student groups: vocational schools, higher vocational schools, and undergraduate schools. With corresponding financial, land, tax, and other support provided to top enterprises, integrated talent training plans are carried out based on industry education integration enterprises, distinguishing the practical departments and positions of students at different levels. At the same time, the enterprise education improvement plan is expanded, and the "certification + actual performance" dual certification is used to smooth the talent development channel. The process of vocational education with Chinese characteristics is optimized through the teaching of school enterprise dual mentors. The practical ability training is improved through on campus and off campus training bases, and a "three double, three practical" collaborative education mechanism is constructed.

6. CONCLUSION

Smooth access to vocational education of secondary and higher education is an important guarantee for building a modern vocational education system and a key to achieving equal social status between vocational education and general education. The production-education integration is the only way for the high-quality development of vocational education. Based on the analysis of industry talent demand, competency-based education with vocational ability training as the core is the training path that vocational schools, higher vocational colleges, and vocational undergraduate programs should adhere to. This study deconstructs a 7-step framework for implementing competency-based education, focusing on addressing the three major obstacles in the integrated cultivation of secondary and higher education: lack of standards, skill inversion, and curriculum repetition. Research breaks through the independent thinking of traditional hierarchical cultivation and constructs a three-layer progressive cultivation based on the integration of industry and education, namely "demand ability curriculum", from a systemic perspective. Through empirical analysis of hotel management majors, it is found that there is a three-level transition pattern in the distribution of professional abilities, including service level (secondary vocational), operation level (higher vocational), and strategic level (undergraduate), providing hierarchical evidence for the competency-based theory. Furthermore, based on the text mining of recruitment big data, a core competency distribution portrait of three training levels is formed, and a hierarchical curriculum system with vertical connection and horizontal integration is constructed, as well as a "dual dimensional evaluation dual directional diversion" talent diversion design. Finally, the production-education integration community is achieved to realize the integration and innovation of talent cultivation in secondary and higher education. Future research will explore the details of talent cultivation in the production-education integration community by developing standards for integrated training of secondary and higher education, and verifying the application path of integrated training of secondary and higher education in competency-based education in other majors, in order to achieve precise implementation of integrated training of secondary and higher education.

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REFERENCES

- [1] Liao Yi, Li Defu, Yang Yunxin, Exploration of the "3+2" Multi-level Progressive Transition Model for Higher Vocational Education [J]. Higher Education Exploration, 2017(1): 65-70.
- [2] Wang Yitao, Lu Xiaoli, Theoretical Tracing, Implementation Status and Path Optimization of "Middle School-High School-Master Degree" Cohesion: Based on the Perspective of Type Education [J]. Research in Educational Development, 2021(3): 60-67.
- [3] Zhou Li, Empirical Analysis of the Connection Between Segmented Training Courses in Secondary and Vocational Colleges in Jiangsu Province: A Case Study of Tourism Management Major [J]. Theory and Practice of Education, 2015, 35(36): 24-26.
- [4] Feng Rui, Sun Jian, The Historical Demands, Current Challenges, and Reconstruction Strategies for the Integration of the Curriculum System in Secondary and Higher Vocational Education [J]. Jiangsu Higher Education, 2016(5): 148-151.
- [5] Zhu Jianliu, On The Design and Practice of the Qualified Personnel Training in Higher Vocational Colleges: A Case Study of Automobile Service and Marketing Majors [J]. Research in Educational Development, 2017(5): 59-63.
- [6] Liu Jie, An Analysis on the Cooperative Construction of Curriculum System between Higher Vocational and Application-oriented Undergraduate Education [J]. China Higher Education Research, 2016(5): 101-105.
- [7] Cao Jun, Design of an Integrated Curriculum System for Secondary and Vocational Education That Meets Talent Needs Based on Industrial Transformation and Upgrading - Taking Customs Declaration and International

- Freight as an Example [J]. Higher Education Exploration, 2016(S): 134-135+174.
- [8] Liang Kedong, Practice Exploration, Development Bottleneck and Promotion Strategy of Vocational Undergraduate Education [J]. China Higher Education Research, 2021, (09): 98-102.
- [9] Song Le, Exploring the Education Model of Vocational Education in China from the Perspective of Ability Based Education [J]. Chinese Vocational and Technical Education, 2019(31): 71-75.
- [10] Kang Chunxiao, How Can the Concept of Competency Based Education Be Implemented in Canada — Analysis Based on the Main Project Promoted by the Canadian Association of Applied Technology and Vocational Colleges [J]. Vocational and Technical Education, 2022(36): 71-75.
- [11] Cheng Xinkui, New Developments in America's Competency-based Education and Lessons for China's Open and Distance Education [J]. Chinese Journal of Distance Education, 2021(12), 28-37.
- [12] Zhao Haohua, The Enlightenment of the Applied Talents Cultivation in Higher Vocational Education Abroad — Based on the Perspective of Competency-based [J]. Adult Education, 2018 (6): 81-84.
- [13] Zang Zhijun, Output Orientation and Ability Orientation: an Analysis on the Basic Principles of the Design of Vocational Education Evaluation System at Undergraduate Level [J]. Chinese Vocational and Technical Education, 2020,(25): 20-23.