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Research on the Influencing Mechanism of Inclusive Leadership on Employees' Proactive Innovation Behavior: The Negative Moderating Role of Technostress

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Research on the Influencing Mechanism of Inclusive Leadership on Employees' Proactive Innovation Behavior: The Negative Moderating Role of Technostress

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Abstract

Drawing upon Social Cognitive Theory, this study explores the mediating effect of creative self-efficacy on the relationship between inclusive leadership and employees' creative behaviors, and empirically examines it using a multilevel linear modeling approach. The research findings reveal that inclusive leadership exerts a significant positive impact on employees' creative behaviors, with creative self-efficacy playing a crucial mediating role in this process. Meanwhile, technostress significantly moderates the relationship between inclusive leadership and creative self-efficacy, as well as the relationship between inclusive leadership and employees' creative behaviors. This study unveils the underlying mechanism through which technostress acts as a leadership diluent, thereby expanding the contextual boundaries of research on inclusive leadership. It offers systematic managerial insights for technology-driven enterprises to advance leadership development and foster employee innovation incentives amidst high-pressure technological environments.

Keywords: *Inclusive Leadership; Technostress; Creative Self-Efficacy; Employee Creative Behavior*

1. Research Background

In an era marked by the convergence of the knowledge economy and digital transformation, innovation stands as the cornerstone for enterprises to achieve sustainable competitive advantage. For technology-based enterprises, which inherently center on product research and development, technological innovation, and business model renewal, innovation constitutes the very essence that defines them as technology-driven firms (Wang, 2025). In the fiercely competitive environment where "the fast fish devours the slow," the continuous shortening of product life cycles, frequent talent turnover, and rising innovation costs all necessitate that enterprises be capable of stimulating employees' creative potential amidst high-pressure and rapidly changing circumstances (Lu & Zhang, 2007). How to effectively stimulate and manage employees' creative behaviors has emerged as the top priority challenge that corporate leaders urgently need

to address. The limitations of traditional leadership styles and theories have become increasingly apparent. For instance, transformational leadership, which was highly regarded during the industrial era, emphasizes that leaders inspire employees through vision, role modeling, and motivation to achieve performance beyond expectations (Bass, 1985). However, employees in technology-based enterprises are characterized by high educational attainment, advanced skills, and strong autonomous motivation. They tend to prefer flat and open management models, and their individual needs and innovation aspirations sometimes struggle to resonate with the grand transformative visions of the enterprise. In contrast, authoritarian and task-oriented leadership styles, which lean towards strict control and lack of empowerment, tend to stifle employees' creative initiative and courage to experiment and make mistakes. To empower employees in creative enterprises to engage in unrestrained creativity and bold trial-and-error exploration, it is imperative for companies to foster an innovation-supportive environment, which precisely necessitates a fundamental transformation in leadership models. Technology enterprises urgently require a novel leadership model that can balance trust, support, and psychological safety, so as to unleash employees' intrinsic creative motivation. Inclusive leadership, characterized by its core attributes of openness, accessibility, and usability, along with its acceptance of diverse employee voices, support for creative exploration, and tolerance for failure, exhibits a high degree of alignment with the culture of technological innovation. Consequently, it has garnered widespread attention from both academic and practical circles. However, with the substantial shortening of technological iteration cycles, employees are not only required to continuously grapple with an endless stream of emerging technological tools but also endure profound career anxiety stemming from the obsolescence of their skills and the threat of being replaced by technology. In this persistently high-pressure technological context, the positive effects of inclusive leadership may be subtly diluted and systematically undermined by technological stress.

Based on this, this paper centers its discussion around the core question of "through what mechanisms does technostress undermine the positive influence of inclusive leadership on employees' creative behaviors," aiming to deepen theoretical understanding of the efficacy boundaries of inclusive leadership and provide valuable references for the management practices of technology-based enterprises.

From the perspective of Social Cognitive Theory (Bandura, 1986), inclusive leadership can enhance employees' creative self-efficacy through a threefold mechanism comprising "modeling by example - verbal persuasion - successful experiences," thereby empowering employees to generate, promote, and implement new ideas with greater confidence when confronted with challenges (Gong et al., 2009). Creative self-efficacy refers to employees' belief in their own creative capabilities and serves as a crucial psychological bridge linking leadership behaviors to creative actions. Employees with high levels of creative self-efficacy are more inclined to select challenging creative tasks, demonstrate greater perseverance when encountering difficulties, and cope more effectively with setbacks (Tierney & Farmer, 2011). Employees with high levels of creative self-efficacy are more inclined to take on creative risks, overcome obstacles, and sustain long-term engagement in creative activities (Jaiswal & Dhar, 2015). Existing empirical research has demonstrated that trust, support, and respect from leaders towards employees can enhance

employees' affective commitment and motivation, thereby boosting their self-efficacy and, consequently, strengthening their creative motivation. Inclusive leadership, characterized by its emphasis on respecting employees, delegation of authority, and empowerment, can significantly enhance employees' self-efficacy. Technostress refers to the negative psychological state experienced by employees when using new technologies, stemming from factors such as technological complexity, information overload, and system intrusions (Tarafdar et al., 2007). Technostress not only diminishes employees' work efficiency and well-being (Ayyagari et al., 2011) but also undermines their creative motivation and creativity (Ragu-Nathan et al., 2008). By disrupting individuals' self-regulation and the allocation of cognitive resources, technostress inhibits the formation of creative self-efficacy. Consequently, technostress may serve as a critical contextual boundary condition that moderates the influence of inclusive leadership on employees' creative behaviors.

Therefore, this study focuses on the unique human resource management context faced by technology enterprises and constructs a comprehensive theoretical model. It explores the mechanisms through which inclusive leadership influences employees' creative behaviors, establishing a mediating pathway via creative self-efficacy. Additionally, it introduces technostress as a moderating variable to examine its boundary effects. Grounded in Social Cognitive Theory, the study formulates research hypotheses and employs empirical analysis methods for validation, aiming to assist technology enterprises in continuously enhancing their core competitiveness and achieving sustainable development.

2. Theoretical Foundations and Research Hypotheses

2.1 Inclusive Leadership and Employee Creative Behavior

Inclusive leadership emphasizes that leaders should demonstrate openness, accessibility, and availability, while providing employees with respect, support, tolerance, and empowerment (Randel et al., 2018). These attributes align closely with the psychological and environmental conditions necessary for fostering creative behavior.

Inclusive leadership behaviors are perceived by employees as a significant form of social reward. When leaders use their inclusive actions to make employees feel valued, trusted, and accepted, it triggers a strong sense of reciprocal obligation among employees. This, in turn, motivates them to voluntarily engage in behaviors that extend beyond their formal job responsibilities. Creative behavior stands out as a crucial manifestation of such voluntary contributions that surpass existing role requirements. He (2021) argued that inclusive leadership exerts a positive influence on employees' proactive creative behaviors through two pathways: work thriving and perceived organizational status. The error management climate serves as a moderator in this process. Furthermore, he emphasized that inclusive leadership stimulates creative behaviors by enhancing psychological states and status perception, with such stimulation being more pronounced in a favorable organizational climate. Liu (2023) found in her research that inclusive leadership exhibits a significant positive correlation with employees' creative behaviors. The error management climate plays either a mediating or moderating role

between the two. Specifically, under conditions of a favorable error management climate, inclusive leadership more effectively promotes creative behaviors among knowledge workers. This finding underscores the synergistic enhancement of creative behaviors through the combined influence of organizational climate and inclusive leadership. Carmeli (2010) pointed out that inclusive leadership is characterized by openness, accessibility, and availability. Such a leadership style facilitates employees' participation in creative tasks and enhances their creative performance, thereby illustrating the mechanistic link between the behavioral traits of inclusive leadership and employees' creative behaviors.

Therefore, inclusive leadership, grounded in reciprocal relationships, facilitated through positive role modeling, and supported by addressing employees' psychological needs, lays a solid foundation for fostering creative behaviors among employees. In technology-oriented enterprises, where high autonomy and innovation-driven work inherently involve uncertainties, inclusive leadership effectively responds to such challenges and is more conducive to stimulating the emergence of creative behaviors.

Based on this, the present study proposes the following hypotheses:

Hypothesis 1: Inclusive leadership exerts a positive influence on employees' creative behaviors.

2.2 The Mediating Role of Creative Self-Efficacy

According to Social Cognitive Theory, an individual's self-efficacy is not static but is shaped through multiple pathways, with social environments and role models playing particularly significant roles (Bandura, 1986). Inclusive leadership does not operate through a single pathway; instead, it systematically and multidimensionally enhances employees' creative self-efficacy by employing mechanisms outlined in Social Cognitive Theory, such as verbal persuasion, improving emotional states, and providing firsthand experiences. Wu Shijian et al. (2020) noted that within the framework of a harmonious culture, inclusive leadership strengthens employees' positive self-assessment of their creative capabilities by cultivating an open and inclusive organizational climate and affirming employees' individuality and creative endeavors. This process emboldens employees to take initiative and mitigates their fear of failure, thereby enhancing their confidence in achieving success in creative tasks—a concept referred to as creative self-efficacy. Yao and Li (2014) argued that the respectful, supportive, and accepting behaviors exhibited by inclusive leaders can enhance employees' psychological safety and emotional stability. Additionally, leaders' open communication and non-punitive attitudes inspire employees' confidence to innovate boldly, thereby strengthening their creative self-efficacy. He (2021) pointed out that the empowering behaviors and supportive policies of inclusive leaders can enhance employees' psychological empowerment and sense of competence. Through this empowerment process, leaders bolster employees' confidence in "taking control of innovation," thereby fostering sustained creative motivation.

A high level of creative self-efficacy can elevate employees' intrinsic motivation in creative activities, leading them to become more emotionally engaged in the innovation process and willing to persistently overcome difficulties and keep trying. Gu and Peng (2019), from the perspective of social support, posited that when individuals believe they possess the capabilities

required for innovation, they are more inclined to proactively identify problems, generate novel ideas, and derive reinforcing effects from social support. Consequently, creative self-efficacy serves as a psychological turning point that transitions individuals from "passive responsiveness" to "proactive innovation." Wang (2020), using knowledge workers in the digital context as her research sample, discovered that high-performing individuals are better at mobilizing their intrinsic interest and maintaining focus and enthusiasm for tasks, thereby enabling sustained creative exploration. Creative self-efficacy helps employees accurately evaluate challenges and resources, sustain confidence and resilience, and demonstrate greater persistence and frustration tolerance throughout the innovation process. Wang et al. (2021) argued that individuals with high levels of creative self-efficacy possess stronger beliefs in their own creative capabilities, enabling them to maintain positive cognitive appraisals when confronted with failure and uncertainty. This, in turn, allows them to demonstrate greater cognitive flexibility and problem-solving abilities. Xin (2023) posited that high-performing teachers exhibit greater adaptability and persistence when confronted with complex technological tasks, which can help employees maintain cognitive stability and refrain from giving up easily in the face of innovation failures. Leadership behavior does not directly elicit creative behavior from employees; rather, it exerts its influence indirectly by shaping employees' intrinsic psychological cognitions. Individuals internalize their perceptions of the external environment into beliefs about their own capabilities, ultimately driving their behavioral outcomes. Self-efficacy serves as the most pivotal psychological mechanism in this process (Bandura, 1986).

Employees with high levels of creative self-efficacy consistently believe in their ability to tackle challenges and risks encountered during the innovation process. Consequently, they exhibit a stronger inclination towards innovation and demonstrate greater perseverance and endurance when confronted with setbacks (Tierney & Farmer, 2011). This unwavering belief in one's own creative capabilities serves as a potent catalyst in facilitating employees' transformation of their creative potential into tangible creative actions, permeating the entire process from idea generation and promotion to implementation (Scott & Bruce, 1994). Therefore, creative self-efficacy serves as a crucial intermediary link between inclusive leadership and employees' creative behavior. It not only represents the outcome of the positive influence of inclusive leadership but also functions as a precursor that drives employees' creative actions. When leaders demonstrate inclusiveness, employees' creative self-efficacy experiences an enhancement. It is precisely this heightened sense of self-efficacy that ultimately motivates employees to engage in creative behaviors. This mechanism unveils the intrinsic "black box" process through which inclusive leadership influences innovation, thereby providing a more comprehensive and in-depth theoretical explanation.

Based on this, the present study puts forward the following hypothesis:

Hypothesis 2: Creative self-efficacy plays a mediating role in the mechanism through which inclusive leadership influences employees' creative behavior.

2.3 The Moderating Role of Technostress

According to Social Cognitive Theory, self-efficacy has four primary sources: enactive mastery, vicarious experience, verbal persuasion, and physiological and affective states

(Bandura, 1997). However, with the widespread adoption of information technology and the accelerated pace of digital transformation, technostress interferes with individuals' processing of external positive information by depleting their cognitive and emotional resources, thereby hindering the formation of self-efficacy (Shu et al., 2011). Xin (2023) argues that technostress undermines teachers' technological self-efficacy, with the emotional anxiety and physical and mental exhaustion induced by technostress significantly diminishing teachers' performance in teaching. Yan (2022) pointed out that when employees are confronted with high-intensity technological changes and informational pressures, counterproductive work behaviors may still emerge despite the ample resource support and encouragement provided by leaders, due to the depletion of psychological resources. Yang and Feng (2024) found that technostress can lead to issues such as attention distraction and emotional exhaustion among employees, thereby diminishing the positive impact of leadership support on employee performance outcomes. Wang et al. (2025) pointed out that the technostress arising from technological complexity and information overload significantly elevates employees' cognitive load, thereby further undermining their learning and reflective capabilities. Therefore, when technostress is high, employees may perceive external support provided by the organization as an additional burden and might even avoid the resources and support offered by the organization due to perceived technological threats, thereby weakening the positive psychological efficacy generated by leaders' inclusive behaviors. Conversely, in contexts characterized by low technostress, employees possess more abundant psychological and attentional resources, enabling them to fully absorb positive signals from leaders. Through the processes of modeling and verbal persuasion, they undergo an internalization of self-belief (Salanova et al., 2013). In such scenarios, the supportive role of inclusive leadership is more likely to facilitate the enhancement of creative self-efficacy via the pathway of "verbal persuasion" (Gu, 2016).

According to Social Cognitive Theory, the occurrence of behavior relies not solely on self-efficacy (belief) but is also influenced by situational support and barriers (Bandura, 1997). Technostress represents a significant environmental barrier that depletes employees' cognitive and emotional resources. When confronted with technological complexity, information overload, and technological encroachment, employees' attentional resources become severely taxed, leading to negative impacts on their physiological and emotional states. Consequently, this diminishes their perception and absorption of external supportive cues, such as leadership encouragement (Tarafdar et al., 2007). This disruption shatters the "efficacy formation chain" established during employees' social cognitive processes, making it difficult for the verbal persuasion and modeling demonstrated by inclusive leaders to be internalized into stable efficacy beliefs (Califf et al., 2020). Zhang et al. (2023) argued that technological anxiety can disrupt immersive experiences, preventing individuals from maintaining sustained focus on their goals. Feng et al. (2023) discovered that technostress indirectly undermines teachers' creative performance by reducing their flow experience. Wang et al. (2025) posited that, under conditions of excessive cognitive load, the positive impact of creative self-efficacy is supplanted by "task interference." Yang and Feng (2024) argued that technostress diminishes the positive emotions derived from social media use, suggesting that technostress disrupts sustained pleasurable engagement. Under high technostress, employees tend to allocate more attention to

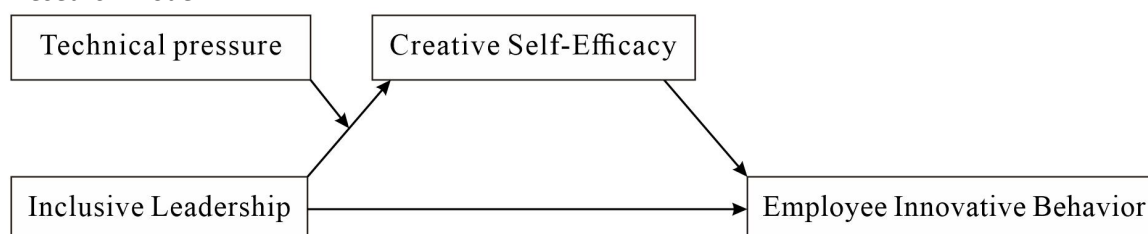
coping with technological challenges rather than developing creative capabilities. This, in turn, diminishes the mediating effect of inclusive leadership in fostering creative behavior through creative self-efficacy. Technostress elevates both the implementation and failure costs associated with creative behavior, thereby weakening the predictive power of self-efficacy on behavior. Under conditions of low technostress, employees possess more abundant psychological resources and exhibit a more positive emotional state, perceiving relatively lower environmental risks and fewer implementation barriers. Consequently, creative self-efficacy can more effectively motivate employees to engage in creative behaviors.

Therefore, this study proposes the following hypotheses:

Hypothesis 3: Technology moderates the mediating relationship between creative self-efficacy and the impact of inclusive leadership on employees' creative behaviors. Specifically, as technostress increases, the influence of inclusive leadership on employees' creative behaviors through creative self-efficacy becomes weaker.

Figure 1

Research model



3. Research Methodology and Data Analysis

3.1 Survey Participants and Procedure

The survey sample for this study was drawn from 13 technology-based enterprises, encompassing a range of businesses including internet companies, artificial intelligence development and application firms, computer development and service providers, as well as biotechnology and pharmaceutical industries. Convenience sampling was employed, without imposing controls on the gender or age of participating employees. During the sample selection process, efforts were made to ensure the diversity of the sample. The online survey platform, Questionnaire Star, was utilized for questionnaire distribution.

A total of 680 questionnaires were collected, and after sorting and cleaning, 553 valid questionnaires were retained. In terms of gender distribution, males accounted for a substantial proportion of 77.94%, while females constituted 40.33%. From the perspective of age characteristics, individuals aged 25 and under accounted for 14.29% of the sample. The highest proportion was observed among those aged 26-30 (inclusive), at 31.28%, followed by those aged 31-40 (inclusive) at 34.18%. Those aged 41-50 (inclusive) constituted 17.72%, while those aged 51-60 (inclusive) made up 2.17%. Individuals aged 61 and above represented a mere 0.36% of the sample, indicating that young employees constituted the largest proportion. In terms of

educational attainment, 36.17% of the sample held a junior college degree or below, 51.54% possessed a bachelor's degree, 9.40% had a master's degree, and 2.89% held a doctoral degree. Notably, over 60% of the sample had received an undergraduate education or higher. In terms of enterprise size, firms with fewer than 300 employees accounted for 47.74% of the sample, those with 300-1000 (inclusive) employees constituted 33.82%, those with 1000-3000 (inclusive) employees made up 10.49%, and enterprises with over 3000 employees represented 7.96%. Notably, small and medium-sized enterprises (SMEs) accounted for nearly 80% of the sample.

3.2 Variable Measurement

The scales employed in this study are well-established ones widely used in domestic and international academic circles. All of them adopt a 5-point Likert scale, where the responses range from 1 to 5, indicating a progression from "strongly disagree" to "strongly agree".

(1) Inclusive leadership was measured using a 9-item scale adapted from Randel et al. (2018). A sample item reads: "My supervisor is open to listening to new ideas from colleagues." In the present study, the Cronbach's α coefficient for this scale was 0.912.

(2) Employee creative behavior was measured using a 6-item scale developed by Scott and Bruce (1994). A sample item is: "I actively seek out and explore new technologies, processes, techniques, or product ideas." In the present study, the Cronbach's α for this scale was 0.779.

(3) Creative self-efficacy was measured using a 3-item scale developed by Tierney and Farmer (2011). A sample item is: "I am confident that I can solve problems creatively." In the present study, the Cronbach's α for this scale was 0.926.

(4) Technostress was measured using the Technostress Creators Scale (TCS) developed by Tarafdar et al. (2007). To capture the specific technostress experienced by employees in technology-driven enterprises, this study drew upon the empirical work of Tarafdar et al. (2007), Ragu-Nathan et al. (2008), and Califf and Brooks (2020), and measured technostress across two dimensions: techno-overload and techno-complexity. In the present study, the Cronbach's α for this scale was 0.876.

(5) Control variables included gender, age, educational background, firm ownership type, and company size. The coding was as follows: Gender was coded into two categories, with 1 representing male and 2 representing female. Age was coded into six categories: 1 = "25 and under," 2 = "26–30 (inclusive)," 3 = "31–40 (inclusive)," 4 = "41–50 (inclusive)," 5 = "51–60 (inclusive)," and 6 = "61 and above." Educational background was coded into four categories: 1 = "junior college and below," 2 = "bachelor's degree," 3 = "master's degree," and 4 = "doctoral degree." Firm size was classified into four categories: 1 = "fewer than 300 employees," 2 = "300–1,000 employees (inclusive)," 3 = "1,000–3,000 employees (inclusive)," and 4 = "more than 3,000 employees."

4. Data Analysis Results

4.1 Reliability and Validity Analysis

First, SPSS 26.0 and Amos 26.0 were employed to test the reliability and validity of the measurement model. Table 1 presents the standardized factor loadings, Cronbach's α , composite

reliability (CR), and average variance extracted (AVE) for each construct. As shown in the table, all Cronbach's α and CR values exceeded the recommended threshold of 0.7, and all AVE values were above 0.5, indicating that the scales demonstrated satisfactory reliability and convergent validity.

Table 1
Reliability and Validity Analysis

Variables	Cronbach's alpha	AVE	CR
Inclusive Leadership	0.912	0.588	0.928
Creative Self-Efficacy	0.779	0.693	0.872
Technostress	0.926	0.602	0.938
Employee Creative Behavior	0.876	0.617	0.906

4.2 Common Method Bias Test

The potential common method bias was statistically examined using Harman's single-factor test. Based on the results of the Exploratory Factor Analysis (EFA), four factors with eigenvalues greater than 1 were extracted from the unrotated exploratory factor analysis, with the first factor accounting for 28.83% of the total variance. Since this value fell below the 50% threshold, it can be concluded that the sample data in this study did not suffer from severe common method bias.

4.3 Descriptive Statistics and Correlation Analysis

This study employed SPSS 26.0 to conduct descriptive and correlational analyses on inclusive leadership, employee creative behavior, creative self-efficacy, and technostress. Specifically, the means, standard deviations, and inter-variable correlations of these constructs were computed and are presented in Table 2. The results indicated that employee creative behavior was significantly and positively correlated with inclusive leadership ($r = 0.460$, $p < 0.01$), creative self-efficacy ($r = 0.519$, $p < 0.01$), and technostress ($r = 0.264$, $p < 0.01$), with all correlations being moderate in magnitude. Inclusive leadership was significantly and positively correlated with creative self-efficacy ($r = 0.509$, $p < 0.01$) and technostress ($r = 0.235$, $p < 0.01$), with both correlations being moderate in strength. Creative self-efficacy was significantly and positively correlated with techno-stress ($r = 0.373$, $p < 0.01$), with the correlation being moderate in magnitude. These findings provide preliminary support for the hypotheses proposed in this study.

Table 2
Descriptive Statistics and Correlation Coefficients^a

	Mean	Standard Deviation	1	2	3	4	5	6	7	8	9
1. Gender	1.403	0.491	1								

Continued From Previous Page

2. Age	2.633	1.024	-0.022	1							
3. Education Level	1.790	0.727	0.065	-0.130**	1						
4. Enterprise Size	1.787	0.926	0.018	-0.048	0.009	1					
5. Years of Work Experience	2.344	1.099	-0.052	0.457***	-0.130**	0.035	1				
6. Perceived Inclusive Leadership	2.986	0.924	0.116**	-0.028	0.072	0.026	0.052	1			
7. Creative Self-Efficacy	3.009	0.980	0.127**	-0.073	0.090*	0.066	0.028	0.509***	1		
8. Technostress	2.993	0.933	0.087*	-0.067	0.105*	0.068	0.057	0.235***	0.373***	1	
9. Technostress	2.981	0.961	0.069	-0.025	0.078	0.041	0.083	0.460***	0.519***	0.264***	1

^a n = 398. ** Correlation is significant at the 0.01 level (2-tailed).

4.4 Hypothesis Testing

Given the hypotheses of this study, hierarchical regression analysis was employed to test the relationships among the variables. Models 1 and 6 were constructed with the control variables as independent variables and creative behavior and creative self-efficacy as dependent variables, respectively. This approach allowed for an examination of the independent effects of the control variables on the dependent variables. Subsequently, the main study variables were entered into the regression equations to assess their incremental explanatory power regarding the dependent variables. The results are presented in Table 3.

Main Effect Test. In Model 2, the independent variable inclusive leadership was added to Model 1 to establish the regression equation. The results of Model 2 indicate that inclusive leadership has a significant positive effect on employee creative behavior ($\beta = 0.448$, $p < 0.001$). Therefore, Hypothesis 1 is supported.

Table 3
Results of Regression Analysis

Variables	Creative Behaviors				Creative Self-Efficacy		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	0.068	0.016	0.005	-0.009	0.066	0.051	0.053
Gender	-0.069	-0.043	-0.02	-0.017	-0.069	-0.045	-0.049
Age	0.081	0.05	0.04	0.032	0.046	0.024	0.027
Education Level	0.031	0.023	0.003	0.005	0.047	0.033	0.039
Enterprise Size	0.128**	0.086	0.083	0.07	0.041	0.016	0.024
Inclusive Leadership		0.448***		0.261***	0.492***	0.438***	0.599***
Creative Self-Efficacy			0.511***	0.381***			
Technostress						0.257***	0.428***
Inclusive Leadership $\times$ Technostress							-0.275**
R ²	0.025	0.22	0.133	0.326	0.272	0.333	0.339
Adjusted R ²	0.016	0.212	0.083	0.317	0.264	0.324	0.329
ΔR^2	0.025*	0.196	0.251	0.106	0.236***	0.061	0.006
ΔF	2.749*	25.689***	34.649***	37.608***	34.041***	49.507***	4.885***

** $p < 0.01$, *** $p < 0.001$

Mediation Effect Test. As indicated by Model 2 and Model 4, the inclusion of creative self-efficacy as a predictor yielded a statistically significant positive effect on employee creative behavior ($\beta = 0.381$, $p < 0.001$), while inclusive leadership continued to exert a significant positive influence on employee creative behavior ($\beta = 0.261$, $p < 0.001$). Notably, compared with Model 2, the regression coefficient for inclusive leadership declined from 0.448 to 0.261 upon the introduction of the mediating variable. This reduction in the direct effect suggests that creative self-efficacy serves as a partial mediator in the relationship between inclusive leadership and employee creative behavior. Additionally, the mediation effects were examined using a Bootstrap procedure in the present study, with the results presented in Table 4. Based on 5,000 resampled iterations, the indirect effect of creative self-efficacy was found to be 0.195, with a 95% bias-corrected confidence interval of [0.144, 0.251], which does not include zero. Based on these findings, it can be concluded that creative self-efficacy plays a partial mediating role in the relationship between inclusive leadership and employee creative behavior. Thus, Hypothesis 2 is supported.

Table 4
Results of Mediation Effect Test

Mechanism of Action	Effect Size	Standard Error	95% Confidence Interval	
			Lower Limit	Upper Limit
Total Effect	0.466	0.04	0.388	0.545
Inclusive Leadership → Employee Creative Behavior	0.271	0.043	0.187	0.355
Inclusive Leadership → Inclusive Leadership → Employee Creative Behavior	0.195	0.028	0.144	0.251

Moderating Effect Test. To examine the moderating effect of technostress, Model 6 was constructed by adding technostress to the regression equation based on Model 5. Subsequently, Model 7 was established by incorporating the interaction term between the independent variable (inclusive leadership) and the moderator (technostress) into the regression equation. This procedure was conducted to test the moderating role of technostress in the relationship between inclusive leadership and creative self-efficacy. To mitigate multicollinearity, all variables were standardized prior to being entered into the models for analysis. As shown in Model 6, the significant ΔR^2 indicates that technostress exerts a significant explanatory effect on creative self-efficacy. As shown in Model 7, the regression coefficient of the interaction term is significant ($\beta = -0.275$, $p < 0.001$), and the regression coefficient of inclusive leadership is also significant ($\beta = 0.599$, $p < 0.001$). This indicates that technostress positively moderates the positive relationship between inclusive leadership and creative self-efficacy. Hypothesis 3 is supported. As illustrated in Figure 2, under conditions of high technostress, the positive effect of inclusive leadership on creative self-efficacy is attenuated.

Table 5
Mediation Effect Test Results

Outcome Variable	Moderator	Effect Size	Standard Error	95% Confidence Interval	
				Lower Limit	Upper Limit
Creative Self-Efficacy	Low Technostress	0.541	0.052	0.440	0.643
	High Technostress	0.375	0.056	0.265	0.484
Difference in Mediation Effect between Groups		-0.089	0.04	-0.169	-0.01

Test of the Moderated Mediation Effect. As posited in Hypothesis 3, technostress exerts a positive moderating effect on the relationship between inclusive leadership and creative self-efficacy. To further verify the validity of the moderated mediating effect, the PROCESS macro was adopted for subsequent analysis. With the number of bootstrap samples set to 5000, Model 7 of the PROCESS macro was employed to examine the moderated mediating effect of technological pressure at the 95% confidence interval level. As shown in Table 5, the 95% confidence interval (CI) for the low technological pressure group was [0.440, 0.643], which excluded zero; meanwhile, the 95% confidence interval (CI) for the high technological pressure group was [0.265, 0.484], also excluding zero. These results confirm the existence of the moderated mediating effect in the path of “inclusive leadership → creative self-efficacy”, thereby verifying Hypothesis 4.

Table 5
Mediation Effect Test Results

Outcome Variable	Moderator	Effect Size	Standard Error	95% Confidence Interval	
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Creative Self-Efficacy	Low Technostress	0.541	0.052	0.440	0.643
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Difference in Mediation Effect between Groups		-0.089	0.04	-0.169	-0.01

5. Discussion and Analysis

This study draws the following main research conclusions: (1) Empirical results demonstrate that inclusive leadership exerts a significant positive effect on employees' creative behavior in technology-based enterprises. This finding is highly consistent with existing literature, which further consolidates the theoretical foundation of inclusive leadership as an innovation-driven leadership style. (2) The mediating role of creative self-efficacy in the cognitive path. Based on Social Cognitive Theory, this study concludes that creative self-efficacy serves as a significant mediating factor in the relationship between inclusive leadership and employees' creative behavior. Furthermore, it reveals the psychological mechanism whereby inclusive leadership promotes employees' creative behavior through the cognitive dimension of “competence belief”. This finding provides an important cognitive perspective for understanding how leadership influences employee innovation. (3) The negative moderating effect of technological pressure. This study creatively takes technological pressure as a moderating variable and verifies its negative moderating effect on the relationships between inclusive leadership, creative self-

efficacy, and work flow. This finding offers a contextual perspective for understanding the boundary conditions of leadership effectiveness in the digital era and clarifies how technological environmental factors shape the effectiveness of leadership.

The theoretical contributions of this study are mainly reflected in the following aspects: (1) It deepens the research on the influencing mechanism of inclusive leadership on creative behavior of employees in technology-based enterprises. By exploring the mediating role of creative self-efficacy and the moderating effect of technological pressure, this study enriches the research boundary in the field of leadership and employee creative behavior. (2) This study firstly incorporates the psychological mediating variable of creative self-efficacy (cognitive belief) into the analytical framework, thereby more comprehensively revealing the internal mechanism through which inclusive leadership stimulates employees' creative behavior. (3) By incorporating technostress, a construct with distinct contemporary characteristics, as the moderating variable, this paper explores the boundary conditions of positive leadership in adverse technological contexts, thereby offering a novel theoretical perspective for the effective exercise of leadership in technology enterprises.

Inclusive leadership can significantly enhance employees' creative behavior in technology-based enterprises by fostering creative self-efficacy, while such an effect is negatively moderated by technostress. The above research conclusions offer important practical implications for the management of technology-based enterprises: (1) Enterprises should incorporate the cultivation of inclusive leadership into the core agenda of leadership development, and adopt systematic intervention measures to help managers master and practice inclusive leadership behaviors. Organizations should clearly define the behavioral criteria of inclusive leadership, covering three core dimensions: openness (actively soliciting and accepting dissenting opinions), accessibility (reducing power distance and facilitating communication), and availability (providing resource support and development opportunities). The behavioral norms of inclusive leadership should be integrated into the standards for leader selection, promotion and performance appraisal, so as to make inclusive leadership an essential quality for managers. (2) Organizations should adopt targeted measures to systematically strengthen employees' confidence and self-belief in their creative capabilities. It is essential to provide employees with systematic training in creative methods and skills, including design thinking, lean innovation, agile development, and creative problem solving, to help them master relevant creative approaches and techniques. Meanwhile, organizations should actively create practical opportunities for employees to apply acquired skills in real projects and gain experience in accomplishing creative tasks successfully. Furthermore, organizations can adopt a "small steps, rapid iteration" approach. Employees may first be assigned creative tasks of moderate difficulty, followed by a gradual increase in task complexity, so as to enhance their confidence in creative success in a step-by-step manner. (3) Employees in technology-based enterprises should attach great importance to the management of technostress and adopt systematic measures to reduce employees' technostress levels. Organizations ought to provide adequate technical training and ongoing support, as both technological complexity and technological insecurity are important causes of technostress. Accordingly, organizations should deliver systematic and timely technical training to ensure that employees are proficient in various technical tools and systems

required for their work. The training should emphasize practicality and pertinence, and adopt a hierarchical and categorized training model to design differentiated training content according to different job positions and technical proficiency levels. Meanwhile, organizations should set up a technical support hotline or help desk to promptly address technical problems encountered by employees in daily work. (4) Technology-based enterprises should establish a systematic innovation management system. First, it is necessary to foster an innovation culture rooted in inclusive leadership, integrate the philosophy of inclusive leadership into organizational values and cultural construction, and make openness, respect, support and empowerment the behavioral norms of the organization. Second, through institutional design, process optimization and atmosphere building, the principle of inclusiveness should be implemented at all organizational levels, so as to form a cultural environment conducive to innovation.

6. Limitations and Future Research

This study still has the following limitations: (1) Although certain controls were implemented in the survey procedure, all data were collected at a single time point, which may still give rise to common method variance. Future research may adopt a multi-stage survey design to mitigate the influence of common method variance on the research conclusions. (2) The research participants of this study are mainly knowledge-based employees in enterprises, which may limit the generalizability of the research findings. In future studies, it is worthwhile to further examine whether the conclusions of this research remain applicable to samples of non-knowledge-based employees. (3) This study explores the positive effect of inclusive leadership on employees' creative behavior from the perspective of organizational contextual characteristics and enriches the research on the antecedent mechanisms of employee innovation. However, regarding the underlying mechanism, it only verifies the mediating role of creative self-efficacy based on the proactive motivation model, which cannot fully explain the complex influence mechanism of inclusive leadership on employees' creative behavior. Future research can conduct more extensive investigations from the perspective of psychological capital and other relevant dimensions.

Declaration of competing interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Reference

- Ayyagari, R., Grover, V., & Purvis, R. (2011). Technostress: Technological antecedents and implications. *MIS Quarterly*, 35(4), 831–858. <https://doi.org/10.2307/41409969>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

- Bass, B. M., & Bass, R. (2008). *The Bass handbook of leadership: Theory, research, and managerial applications* (4th ed.). Free Press. (Original work published 1985)
- Califf, C. B., Sarker, S., & Sarker, S. (2020). The bright and dark sides of technostress: A mixed-methods study involving healthcare IT. *MIS Quarterly*, 44(2), 809–856. <https://doi.org/10.25300/MISQ/2020/15305>
- Carmeli, A., Reiter-Palmon, R., & Ziv, E. (2010). Inclusive leadership and employee involvement in creative tasks in the workplace: The mediating role of psychological safety. *Creativity Research Journal*, 22(3), 250–260. <https://doi.org/10.1080/10400419.2010.504654>
- Feng, Y., Wu, J., & Chen, D. (2023). The impact of technostress on teachers' job performance in the context of digital transformation: A moderated mediation analysis based on teaching innovation behavior and different thinking styles. *Modern Educational Technology*, 33(5), 15–24.
- Gong, Y., Cheung, S. Y., Wang, M., & Huang, J. C. (2012). Unfolding the proactive process for creativity: Integration of the employee proactivity, information exchange, and psychological safety perspectives. *Journal of Management*, 38(5), 1611–1633. <https://doi.org/10.1177/0149206312442812>
- Gu, Y. (2016). The influence of inclusive leadership on employee creative behavior: A moderated mediation model. *Business Management Journal*, (4), 93–103.
- Gu, Y., & Peng, J. (2019). Feasibility study on enhancing employee creative self-efficacy from the perspective of social support. *Science and Technology Management Research*, 39(24), 78–86.
- He, K. (2021). The mechanism of inclusive leadership on employee proactive creative behavior. *Science Research Management*, 42(2), 140–149.
- Jaiswal, N. K., & Dhar, R. L. (2015). Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *International Journal of Hospitality Management*, 51, 30–41. <https://doi.org/10.1016/j.ijhm.2015.07.006>
- Liu, J. (2023). The impact of inclusive leadership on employee creative behavior: Empirical evidence from knowledge workers. *Advances in Social Sciences*, 12, 6461.
- Lu, X., & Zhang, G. (2007). A study on the influence of work motivation on individual creative behavior. *Soft Science*, 21(6), 124–127.
- Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The consequences of technostress for end users in organizations: Conceptual development and empirical validation. *Information Systems Research*, 19(4), 417–433. <https://doi.org/10.1287/isre.1070.0165>
- Randel, A. E., Galvin, B. M., Shore, L. M., Ehrhart, K. H., Chung, B. G., Dean, M. A., & Kedharnath, U. (2018). Inclusive leadership: Realizing positive outcomes through belongingness and being valued for uniqueness. *Human Resource Management Review*, 28(2), 190–203. <https://doi.org/10.1016/j.hrmr.2017.07.002>
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2011). "Yes, I can, I feel good, and I just do it!" On gain cycles and spirals of efficacy beliefs, affect, and engagement. *Applied Psychology: An International Review*, 60(2), 255–285. <https://doi.org/10.1111/j.1464-0597.2010.00435.x>

- Scott, S. G., & Bruce, R. A. (1994). Determinants of creative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37(3), 580–607. <https://doi.org/10.5465/256701>
- Tarafdar, M., Pullins, E. B., & Ragu-Nathan, T. S. (2015). Technostress: Negative effect on performance and possible mitigations. *Information Systems Journal*, 25(2), 103–132. <https://doi.org/10.1111/isj.12042>
- Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. S. (2007). The impact of technostress on role stress and productivity. *Journal of Management Information Systems*, 24(1), 301–328. <https://doi.org/10.2753/MIS0742-1222240109>
- Tierney, P., & Farmer, S. M. (2011). Creative self-efficacy development and creative performance in an organizational context. *Academy of Management Journal*, 54(6), 1137–1151. <https://doi.org/10.5465/amj.2009.0585>
- Wang, H., Wang, L., & Chen, X. (2021). The influence of inclusive mentoring style on graduate students' creative behavior: The mediating role of creative self-efficacy and the moderating role of deep learning. *Contemporary Education Forum*, (2), 66–74.
- Wang, Q. (2020). Job characteristics, individual characteristics, and employee digital creativity in the digital era: The mediating role of creative self-efficacy and the moderating role of gender. *Technology Economics*, (7), 72–79.
- Wang, X. (2025). A literature review on employee creative behavior. *Service Science and Management*, 14, 392.
- Wang, X., Du, J., & Hu, G. (2025). Causes of workplace social media fatigue from the perspectives of cognitive load and technostress: A comparison between public and private sectors. *Journal of Industrial Engineering and Engineering Management*, 39(5), 114–126.
- Wu, S., Du, M., & Zhou, Z. (2020). How inclusive leadership influences employee deviant creative behavior in the context of Hehe culture. *Science and Technology Progress & Policy*, 37(17), 142–151.
- Xin, J. (2023). The impact of technostress on teaching performance of university teachers: A moderated mediation analysis based on technological self-efficacy and organizational support. *Education & Economy*, 39(4), 98–107.
- Yan, Y. (2022). Family supportive leadership, technostress, and counterproductive work behavior among new-generation employees. *Modern Management Science*, (12), 121–128.
- Yang, Q., & Feng, Y. (2024). The impact of workplace social media use intensity on employee job performance under the moderating effect of technostress. *Business Management*, (5), 122–130.
- Yao, M., & Li, Y. (2014). A study on the mechanism of inclusive leadership's effect on employee creative behavior. *Science and Technology Progress & Policy*, 31(10), 6–9.

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Research on the Construction Process and Collaborative Mechanism of the Dual-Mentor System Between Schools and Enterprises from a Symbiosis Theory Perspective: A Case Study of the White Swan Management Trainee Program in Secondary Vocational Education

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Research on the Construction Process and Collaborative Mechanism of the Dual-Mentor System Between Schools and Enterprises from a Symbiosis Theory Perspective: A Case Study of the White Swan Management Trainee Program in Secondary Vocational Education

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Abstract

As one of the core practical vehicles for the integration of industry and education in vocational education, the dual-mentor system between schools and enterprises exerts a significant influence on the quality of talent cultivation in vocational education. However, in the current context of secondary vocational education, the dual-mentor system encounters several collaborative challenges, such as misaligned objectives, ambiguous rights and responsibilities, and fragmented resources, creating a notable gap compared to the deepening demands for industry-education integration driven by policy initiatives. This case study employs the symbiosis theory as its analytical framework and adopts a qualitative research paradigm. By focusing on the long-term, stable school-enterprise collaboration model exemplified by the White Swan Management Trainee Program at Guangzhou Vocational School of Tourism and Business, it explores the construction process and collaborative mechanisms of the dual-mentor system in vocational education. Research has found that the White Swan Management Trainee Program has established a collaborative logic for the dual-mentor system between schools and enterprises through the construction of a "Four-Co" Collaboration Mechanism and the development of a "Six Duals and Four Professional Abilities" talent cultivation model. This logic is characterized by the mutual embedding of symbiotic units, the coordination of symbiotic modes, and the adaptation of symbiotic environments. This case study validates the applicability of symbiosis theory in analyzing school-enterprise collaborative education practices within vocational education. It provides a replicable Greater Bay Area model for addressing challenges in implementing dual-mentor systems between secondary vocational schools and enterprises, while also offering new research perspectives for deepening the theoretical understanding of such systems in vocational education.

Keywords: *Symbiosis Theory; Vocational Education; Dual Mentor System in Schools and Enterprises; Industry-Education Integration; Management Trainee Program*

1. Introduction

As a crucial link connecting vocational education classrooms with job positions, the dual-mentor system between schools and enterprises serves as a core mechanism for achieving deep integration between industry and education and enhancing the quality of talent cultivation in vocational education. Its establishment and refinement are not only an inevitable requirement for implementing high-quality development in vocational education but also a vital measure to address the structural shortage of industrial talent and promote collaborative development between industry and education, holding significant practical importance. The newly revised Vocational Education Law of the People's Republic of China in 2022 explicitly calls for "deepening the integration of industry and education, as well as school-enterprise cooperation, and implementing the dual-mentor system between schools and enterprises," designating this system as one of the core practical pathways for the typological development of vocational education. Subsequently, multiple departments including the Ministry of Education have successively issued a series of high-profile policy documents, such as the Opinions on Deepening the Reform of the Construction of a Modern Vocational Education System in 2023, the Several Opinions on Further Promoting Industry-Education Integration and School-Enterprise Cooperation in Vocational Education in 2024, and the Professional Action Plan for the Development of Vocational Education Teachers (2025-2028) in 2025. These documents all emphasize the need to improve the selection, training, and evaluation mechanisms for dual mentors from schools and enterprises, strengthen the collaborative efforts of dual mentors in practical teaching, and promote the co-cultivation of talent and resource sharing between schools and enterprises, thereby providing clear policy guidance for the implementation of the dual-mentor system between schools and enterprises.

However, while the exploration of the dual-mentor system between schools and enterprises in the current vocational education sector has achieved certain progress, there remains a significant gap compared to policy requirements and industrial demands, primarily manifesting in the following three prominent issues. Firstly, there exists a misalignment in the talent cultivation objectives between schools and enterprises. Schools primarily emphasize the cultivation of theoretical knowledge and professional qualities, whereas enterprises focus on job-specific skills and practical adaptability. Consequently, there is a lack of unified and cohesive guidance from the dual mentors in the dual-mentor system between schools and enterprises. Secondly, the delineation of mentors' rights and responsibilities remains ambiguous, leading to a situation where school mentors often work in isolation while enterprise mentors' involvement tends to be formalistic, resulting in a fractured collaborative educational chain within the dual-mentor system between schools and enterprises. Thirdly, there exists a bidirectional disconnection of resources between schools and enterprises. The teaching resources of schools and the practical resources of enterprises have not been effectively integrated, leaving the dual-mentor system between schools and enterprises lacking a normalized resource-sharing and support framework. These issues have caused the dual-mentor system between schools and enterprises to become mere formalities, failing to fully unleash its potential for collaborative talent cultivation. Consequently, they have emerged as significant bottlenecks restricting the deepening of

industry-education integration in vocational education.

Currently, academic research on the dual-mentor system between schools and enterprises predominantly focuses on higher vocational education or short-term school-enterprise cooperation projects, with relatively scarce studies targeting secondary vocational education. Moreover, there is a notable lack of in-depth analysis regarding the construction process and collaborative mechanisms of the dual-mentor system within the context of long-term, stable school-enterprise cooperation scenarios. Meanwhile, as the foundational level of vocational education, secondary vocational education features distinct characteristics such as the fundamental nature of skill development, job-specific adaptability, and staged growth in student progression. However, existing research findings demonstrate insufficient adaptability to the dual-mentor system between schools and enterprises tailored for secondary vocational education. Based on this premise, this case study adopts the analytical framework of symbiosis theory and focuses on the White Swan Management Trainee Program, a collaborative initiative between Guangzhou Tourism and Business Vocational School and the White Swan Hotel in Guangzhou, as its research subject. The study aims to conduct a systematic analysis of the construction process of the dual-mentor system between schools and enterprises in secondary vocational education, distill the core mechanisms underlying its synergistic operation, and evaluate the educational effectiveness of this system. The ultimate goal is to provide empirical references for addressing the current collaborative challenges encountered by the dual-mentor system between schools and enterprises.

2. Literature Review

2.1 The Dual-Mentor System Between Schools and Enterprises

The dual-mentor system between schools and enterprises serves as a core practical vehicle for the integration of industry and education as well as collaborative school-enterprise talent cultivation in vocational education. By leveraging the complementary strengths of schools and enterprises and facilitating collaborative teaching, it helps achieve precise alignment between talent cultivation in vocational education and the demands of industrial positions, thus representing a pivotal approach for driving high-quality development of vocational education in the new era. At present, with the advancement of the typological development of vocational education, research on the dual-mentor system between schools and enterprises has become a focal point. Current studies primarily concentrate on three aspects: connotative characteristics, practical dilemmas, and implementation pathways. However, there remain certain gaps in terms of theoretical depth and systematization.

Regarding connotative characteristics, the academic community has reached a relatively consistent understanding of the fundamental attributes of the dual-mentor system between schools and enterprises. Li and Li summarized its core features as the hybrid nature of educational orientation, the dual nature of educational agents, and the shared nature of educational objectives, emphasizing the complementary relationship between on-campus mentors and enterprise mentors in talent cultivation (Li & Li, 2022). From the perspective of

high-level apprenticeship, Li and Li proposed that the construction of the dual-mentor team under the dual-mentor system between schools and enterprises should aim for a high-caliber orientation to support the cultivation objectives of outstanding engineers and master craftsmen at the undergraduate level. This approach breaks through the previous limitations of focusing solely on skill inheritance, emphasizing the integration of academic and technical proficiencies within the mentor team (Li & Li, 2023). Ba further clarified the phased educational objectives and responsibility boundaries of the dual mentors under the dual-mentor system between schools and enterprises, proposing that this serves as a critical prerequisite for achieving collaborative school-enterprise talent cultivation (Ba, 2019).

In terms of the analysis of the practical dilemmas in collaborative talent cultivation under the dual-mentor system between schools and enterprises, the academic community identifies multiple barriers, with scholars adopting varying perspectives. Li and Li (2022) systematically summarized five major challenges: low participation from industry enterprises, the absence of well-defined selection and evaluation criteria, insufficient development of core professional competencies, difficulties in safeguarding the rights and interests of dual mentors, and inadequate collaborative mechanisms. Addressing the real-world challenges of cross-regional school-enterprise collaborations, Liu and Wu argued that the traditional dual-mentor system between schools and enterprises encounters significant obstacles, including weakened professional identity recognition and process coordination difficulties arising from spatial and temporal separations (Liu & Wu, 2021). Han and Zhang, focusing on the overall effectiveness of the modern apprenticeship pilot program, identified “insufficient motivation among mentors” as the key bottleneck constraining the quality of talent development (Han & Zhang, 2020). Additionally, Fu et al. observed the trend of student diversity resulting from the expansion of higher vocational education enrollment, thereby posing higher demands on the personalized guidance capabilities of the dual-mentor system (Fu et al., 2020).

Regarding the practical approaches to the dual-mentor system between schools and enterprises, the academic community has proposed a variety of solutions from different perspectives. Qi et al. have put forward a collaborative education model featuring dual mentors and dual platforms, emphasizing the establishment of a long-term mechanism for the integration of industry and education by relying on on-campus practice platforms and school-enterprise collaboration platforms (Qi et al., 2022). Liu and Wu (2021) innovatively proposed the “remote collaboration” framework, advocating for the realization of five types of collaboration—identity, process, content, tools, and evaluation—through internet technology. This framework provides theoretical support for the implementation of the dual-mentor system between schools and enterprises in geographically dispersed contexts. Zhang and Li emphasize the importance of establishing a mechanism for mutual hiring and shared utilization, as well as two-way job attachments, to cultivate a high-caliber team of dual mentors for the modern apprenticeship system under the framework of the dual-mentor system between schools and enterprises (Zhang & Li, 2018). Drawing on practical experience, Zhao et al. elaborated on strategies for building a dual-mentor team from three dimensions: the establishment of institutional frameworks, the formation of mentor teams, and the enhancement of mentors' professional competencies, within the context of the dual-mentor system between schools and enterprises (Zhao et al., 2019). Deng,

featuring the "trinity" management model, proposed ensuring the implementation of the dual-mentor system between schools and enterprises through the establishment of a special fund and an evaluation-feedback system (Deng, 2013).

Although existing research has made some progress, several research gaps remain to be addressed. First, most studies remain at the level of empirical summaries and descriptive accounts, lacking systematic theoretical explanations of the operational mechanisms and underlying logic of the collaborative mechanisms within the dual-mentor system. Secondly, research on the adaptability of dual-mentor systems across different academic disciplines (such as engineering and liberal arts), educational levels (secondary vocational, higher vocational, and undergraduate), and student populations (regular students and adult learners) remains extremely scarce. Particularly lacking is research on school-enterprise dual-mentor systems within the secondary vocational education sector. Third, current research primarily focuses on the development and implementation of the dual-mentor system, with a lack of systematic empirical studies on its outcomes in talent cultivation, student career development tracking, and corporate benefit assessments following its implementation.

2.2 Symbiosis Theory

Connotation of Symbiosis Theory. The symbiosis theory was first proposed by the German biologist de Bary in 1879. Initially, it was used to elucidate the interdependent and interactive survival relationships among biological species. Later, it gradually extended to social science fields such as sociology, economics, and pedagogy, becoming an important theoretical tool for analyzing the relationships among entities within a system and revealing the laws of system evolution.

The classic symbiosis theory posits that a symbiotic system comprises four core elements: symbiotic units, symbiotic modes, symbiotic environments, and symbiotic interfaces. These four elements are interrelated, collectively determining the system's operational state and evolutionary trajectory. Among these, symbiotic units serve as the fundamental building blocks of symbiotic relationships, with their resource complementarity forming the basis for such relationships. Symbiotic modes represent the forms of interaction between units, categorized into parasitism, commensalism, and mutualism, with symmetrical mutualism being the ideal evolutionary direction. The symbiotic environment encompasses external conditions such as policy, market dynamics, and culture within which symbiotic relationships operate, and its suitability influences the sustainability of these relationships. The symbiotic interface serves as the medium for the exchange of matter, energy, and information between units, acting as the key enabler of synergy. In general, the core logic of symbiosis theory lies in emphasizing the interdependence and co-evolution of various units within a system. Through complementary advantages and resource sharing, it ultimately generates a " $1+1>2$ " symbiotic energy, driving the system to dynamically evolve from a lower level to a higher one.

As this theory has evolved, scholars have expanded its application boundaries across various disciplines. For instance, in economics, symbiosis theory can be used to analyze the development patterns of industrial clusters; in management studies, it can be applied to research corporate collaboration and organizational governance; and in education, it can be utilized for

topics such as educational governance and school-enterprise cooperation. These studies have enriched the scope and implications of symbiosis theory while deepening academic understanding of symbiotic relationships and developmental patterns among entities within systems across diverse fields.

Symbiosis Theory and Vocational Education. As a conceptual framework for analyzing symbiotic phenomena in the biological realm, symbiosis theory has been introduced into the field of vocational education research in recent years. It provides a distinctive theoretical lens for elucidating the underlying mechanisms of school-enterprise collaboration and the integration of industry and education. Through a comprehensive review of relevant literature, it has been observed that research in this field primarily focuses on three dimensions: the deconstruction of elements within symbiotic systems, the practical challenges encountered, and the pathways for implementation. Furthermore, there is a discernible trend of transitioning from mere pattern description to in-depth mechanism analysis.

In terms of deconstructing the elements of symbiotic systems, researchers commonly draw upon the core conceptual framework of symbiosis theory, treating school-enterprise cooperation in vocational education as a complex system involving multiple interacting entities. Zhou and Xiao (2023) pointed out that the symbiotic entity of industry-education integration in vocational education encompasses core symbiotic entities such as government departments, industry organizations, enterprises, and vocational colleges. The establishment of their symbiotic relationships relies on the safeguards provided by the legal system, institutional frameworks, and cultural environment. Zeng and Shi (2024) further deconstructed the symbiotic network of industry-education integration communities into four core elements: symbiotic units, symbiotic interfaces, symbiotic modes, and symbiotic environments, emphasizing the widespread existence of heterogeneous symbiosis within this system. From a dynamic perspective, Sun et al. defined the symbiotic driving force of school-enterprise cooperation in vocational education as the organic unity of the demand force of symbiotic units and the driving force of the symbiotic environment. Among them, the demand force of symbiotic units encompasses dimensions such as resource coupling, cultural integration, and educational responsibilities between industrial sectors and vocational education sectors (Sun & Xu, 2024). From the perspective of the holistic functioning of the symbiotic system, Gan and Huang (2025) analyzed the action mechanisms of symbiotic units, symbiotic modes, symbiotic environments, and symbiotic interfaces, providing an analytical framework for understanding the complexity of industry-education integration in the context of digital transformation.

In terms of diagnosing real-world dilemmas, scholarly research has unveiled multiple issues of imbalance confronting the symbiotic system of school-enterprise cooperation in vocational education. From the perspective of symbiotic units, structural contradictions in resource supply and demand, as well as inefficient cooperation models, exist among the main entities involved in school-enterprise collaboration (Song & Zhang, 2022). Xu focused on the issue of corporate responsibility deficiency, pointing out that enterprises participating in the modern apprenticeship system face a triad of dilemmas: weak awareness of primary responsibility, insufficient internal motivation, and shallow levels of integration (Xu, 2021). From the perspective of symbiotic dynamics, Sun and Xu (2024) identified systemic challenges such as imbalances in resource

supply and demand among symbiotic units, discrepancies in cultural values, cognitive biases in cooperation, and insufficient support mechanisms. From the perspective of symbiotic modes, Zhou and Xiao (2023) pointed out that the current construction of industry-education integration symbiotic entities is still in its nascent stage, having not yet achieved the ideal models of integrated symbiosis and symmetrical reciprocal symbiosis. Inequalities in the status of key stakeholders persist, and a fully realized landscape of multi-stakeholder collaborative governance has yet to emerge. Gan and Huang (2025), starting from the specific context of digital transformation, proposed that the slow evolution and updating of symbiotic modes, along with imbalanced benefit distribution, constitute critical bottlenecks hindering the deepening of industry-education integration. From the perspectives of the symbiotic environment and symbiotic interface, Zeng and Shi (2024) emphasized that insufficient support from policy and cultural environments, along with inefficient energy transmission across the symbiotic interface, represent prominent challenges confronting the construction of industry-education integration communities. Gan and Huang (2025) further pointed out that the instability of the transmission mechanism at the symbiotic interface obstructs the flow of resources, thereby constraining the robust operation of the symbiotic system.

In exploring practical pathways, academia has proposed optimization strategies from various dimensions. For symbiotic units, Song and Zhang (2022) proposed establishing a “supply-demand matching” symbiotic driving mechanism; Xu (2021) advocated strengthening the symbiotic concept and enhancing corporate agency awareness; Sun and Xu (2024) emphasized promoting the generation of symbiotic unit momentum, deepening school-enterprise collaboration through coordinated internal and external driving forces. Regarding symbiotic modes, Zhou and Xiao (2023) advocate strengthening the integration of industry-education symbiosis and equitable sharing of benefits. Zeng and Shi (2024) propose refining symbiotic modes to advance substantive implementation. Sun and Xu (2024) emphasize enhancing mutual benefit symbiosis and building integrated models. Regarding symbiotic environments, Gan and Huang (2025) proposed optimizing the positive impacts of symbiotic environments to promote the robust development of symbiotic systems. Zeng and Shi (2024) emphasized strengthening policies and enhancing cultural-cognitive awareness to cultivate symbiotic environments. Song and Zhang (2022) called for achieving a “multiple synergistic” policy synergy. Regarding symbiotic interfaces, Gan and Huang (2025) advocate strengthening the transmission capacity of symbiotic interfaces to establish diversified channels for resource allocation. Zeng and Shi (2024) emphasize ensuring unimpeded energy transmission across symbiotic interfaces to enhance integration and connectivity. Zhao proposes at a higher level the construction of a school-enterprise community of shared destiny. Following the action path of “stimulating motivation—enhancing capabilities—boosting vitality,” this approach aims to achieve the organic integration of a school-enterprise community of shared interests, a community of shared governance, and a community of shared values (Zhao, 2021).

Although research on school-enterprise collaboration from the perspective of symbiosis theory has made certain progress, several research gaps still remain to be urgently addressed. Firstly, the research lacks depth, as the symbiosis theory is often employed merely as a simplistic analytical framework without being integrated with the distinctive characteristics of

vocational education to construct a tailored analytical system. Secondly, the research tends to focus on macro-level aspects, concentrating on the macro-mechanisms and models of school-enterprise collaboration, while neglecting micro-level studies of specific practical forms. This has resulted in a failure to uncover the application pathways of the theory in concrete practices. Thirdly, there exists a research gap in the field, with the symbiosis theory being predominantly applied to higher vocational education and relatively little research conducted on secondary vocational education. Notably, there is a dearth of in-depth studies that combine the symbiosis theory with the core practical vehicle of dual-mentorship systems in secondary vocational school-enterprise collaboration. In summary, there remains substantial room for the expansion of symbiosis theory's application in the field of vocational education. It is urgently necessary to conduct in-depth case studies that integrate the characteristics of secondary vocational education with specific school-enterprise collaboration practices. Such efforts will not only enrich the theoretical application outcomes but also provide theoretical guidance for the implementation of the dual-mentorship system in vocational education school-enterprise collaboration.

3. Research Design

3.1 Research Methodology

This study employs a case study approach within a qualitative research paradigm, focusing on the White Swan Management Trainee Program—a collaborative initiative between Guangzhou Vocational School of Tourism and Business and Guangzhou White Swan Hotel—as its singular case. The case study method is suitable for conducting systematic analyses of complex phenomena within specific contexts. It excels particularly at addressing questions of “how to do” and “why it is so,” enabling in-depth characterizations of research subjects through cross-validation of evidence from multiple sources. This aligns highly with the research objective of this study, which investigates the construction process and collaborative mechanisms of the dual-mentor system between schools and enterprises in secondary vocational schools. Specifically, the operation of the dual-mentor system between schools and enterprises constitutes a complex practice embedded within specific collaborative scenarios. The formation of its coordination mechanisms is influenced by multiple factors—including policy, stakeholders, and resources—making it difficult to achieve systematic deconstruction through quantitative research. The case study approach transcends the limitations of linear research, faithfully reconstructing the practical context of the White Swan Management Trainee Program's dual-mentor system between schools and enterprises. It precisely captures the interactive logic among symbiotic units, patterns, environments, and interfaces.

3.2 Case Selection

The selection of the White Swan Management Trainee Program as the research subject in this case is the result of a comprehensive consideration of numerous factors. The White Swan Management Trainee Program is not a short-term pilot initiative, but rather a mature talent development model refined through continuous practice and iterative optimization across multiple phases—including evening classes, short-term training courses, and customized

corporate programs. Having operated steadily for five consecutive cohorts, the accumulated experience and methodologies provide this study with authentic, rich, and representative empirical foundations, thereby avoiding the partiality and randomness often associated with research outcomes from short-term collaborative projects.

Meanwhile, as China's first Sino-foreign joint venture five-star hotel established after the country's reform and opening-up, the Guangzhou White Swan Hotel stands not only as a benchmark for the domestic high-end hotel industry and a representative of national hotel brands, but also plays a significant role in advancing vocational education. Its talent development standards and service management models have become industry benchmarks, while its collaboration with educational institutions in talent cultivation has yielded extensive experience and high-quality resources. The other partner institution, Guangzhou Tourism and Business Vocational School, holds the status of a nationally key vocational school and was among the first batch of national model schools for secondary vocational education reform and development. It enjoys a high reputation within the Greater Bay Area and across China's vocational education sector. The high caliber of both the school and enterprise partners has laid a solid foundation for implementing the dual-mentor system between schools and enterprises in the White Swan Management Trainee Program.

Additionally, core members of the research team served as class advisors for the White Swan Management Trainee Program, a role that provided inherent advantages for the smooth progression of the research. Team members have been deeply involved in the entire educational process of the specialized program, spanning from student recruitment, curriculum design, and daily teaching to corporate training and assessment evaluation. Through this firsthand engagement, they have closely observed and experienced the actual operational scenarios and educational outcomes of the dual-mentor system between schools and enterprises. Due to this insider status, the team was able to conveniently conduct in-depth interviews with key participants, including school administrators, core teachers of the White Swan Management Trainee Program, enterprise mentors, and students. This facilitated the efficient collection of core documentary materials such as talent cultivation plans, internship evaluation forms, and meeting minutes from school-enterprise collaboration. By cross-verifying primary and secondary data sources, the team ensured the authenticity, richness, and comprehensiveness of the research data, thereby providing robust data support for an in-depth analysis of the collaborative mechanisms within the dual-mentorship system between schools and enterprises.

4. Case Overview

4.1 Historical Background of the White Swan Management Trainee Program

The school-enterprise collaboration between Guangzhou Vocational School of Tourism and Business and Guangzhou White Swan Hotel can be traced back to the founding of the college in 1981. Over the past four decades and more, both parties have journeyed hand in hand, jointly witnessing the integrated development of China's hospitality industry and vocational education. At the outset of their collaboration, to urgently meet the White Swan Hotel's pressing demand for professional service personnel in preparation for its opening, the college took the lead in

launching evening training courses, successfully cultivating the first batch of over a thousand professional service staff. This initiative laid a solid foundation for the subsequent school-enterprise partnership. Subsequently, the collaboration between the two parties has continuously evolved in response to industrial demands and educational policies, gradually upgrading from short-term skill training programs to enterprise-customized order classes. After 2014, they further established tailored classes, embarking on a systematic exploration of the modern apprenticeship model and forming an embryonic form of "enrolling students as recruiting employees, with joint cultivation by both schools and enterprises." This series of phased practices has accumulated rich experience for the subsequent development of higher-level collaborative educational models and fostered a stable ecosystem for cooperation.

In 2021, the White Swan Management Trainee Program was officially established, marking an inevitable choice made by both the school and the enterprise to align with the high-quality development trend of vocational education. At that time, the state successively issued the Opinions on Promoting the High-Quality Development of Modern Vocational Education and the Guiding Opinions on the Comprehensive Implementation of a New Enterprise Apprenticeship System with Chinese Characteristics, explicitly calling for the deepening of industry-education integration and the opening up of career advancement pathways for technical and skilled talent. Meanwhile, the high-end hotel industry faces an increasingly urgent need to build a pipeline of highly skilled technical professionals, as traditional training models struggle to meet corporate demands for versatile talent. Against this backdrop, Guangzhou Vocational School of Tourism and Business has partnered with the White Swan Hotel and higher vocational colleges to innovatively launch a management trainee program, elevating its training objectives from cultivating skilled core personnel to developing reserve management talent. After five years of implementation, this model has undergone continuous refinement and has now evolved into an integrated, collaborative, extended-term talent cultivation system centered on specialized teams. It achieves seamless training across secondary vocational education, higher vocational education, and enterprises, establishing itself as a benchmark for deep industry-academia integration in talent development.

4.2 Operation Model of the Dual-Mentor System Between Schools and Enterprises for the White Swan Management Trainee Program

Leveraging over four decades of collaborative experience between the school and enterprises, the specialized program has established a dual mentor system tailored for cultivating vocational hotel professionals. Centered on rigorous selection and allocation of mentors, clear division of labor in collaborative teaching, and robust support through assessment and incentives, this system forms an integrated educational loop. The dual mentor system permeates the entire vocational training process, facilitating deep integration between theoretical instruction and practical workplace experience.

In selecting and assigning dual mentors from both academic and industry backgrounds, the White Swan Management Trainee Program adheres to rigorous standards for mutual screening, building a high-caliber team of dual mentors. School mentors are selected from the core faculty of the Hotel Management program based on merit. All possess dual-qualified credentials and

extensive frontline teaching experience, with a deep understanding of industry trends. Corporate mentors are selected from frontline department supervisors, technical experts, or gold-medal service staff at the White Swan Hotel. They must possess not only solid practical skills and hotel management experience but also strong teaching abilities. Through the implementation of a “1+1” pairing model, the task force pairs school mentors with corporate mentors to jointly oversee the comprehensive training of task force students. This approach establishes a dual-mentor teaching team integrating academic and industry expertise, coordinating curriculum development and instructional delivery to ensure optimal faculty allocation and teaching synergy.

Regarding the implementation of teaching and coordination of responsibilities between school and enterprise mentors, the task force has established formal protocols to clarify the division of labor and complementary roles of both parties, thereby creating a routine collaborative education mechanism. School mentors focus on teaching specialized theoretical knowledge, cultivating professional ethics, and guiding students' daily development. They solidify students' theoretical foundations and shape their professional character while coordinating with corporate mentors to develop training plans and monitor practical training progress. Corporate mentors focus on practical job skills, industry awareness development, and hands-on training guidance. They integrate the White Swan Hotel's service standards, management processes, and corporate culture into instruction, enhancing students' job readiness through on-site coaching and case studies. Additionally, both parties collaborate through regular teaching seminars to jointly develop talent cultivation programs and course content. They implement a dual-scenario teaching approach combining classroom instruction with on-the-job training, featuring cross-disciplinary teaching and real-time communication. Together, they conduct student learning evaluations and practical training assessments, forming a synergistic educational force.

In terms of assessment incentives and support mechanisms, the task force has established a collaborative evaluation system between the schools and enterprises, complemented by comprehensive incentive and support measures to ensure the sustainable operation of the dual-mentor system. In terms of assessment, a multi-dimensional evaluation system jointly implemented by schools and enterprises will be adopted. This system will comprehensively evaluate teaching effectiveness, educational outcomes, and collaborative performance through student evaluations, peer reviews, and mutual assessments between schools and enterprises. The assessment results will be directly linked to the selection of outstanding mentors and commendations. At the incentive level, the school incorporates industry-academia collaborative teaching into faculty promotion evaluations and performance assessments. Enterprises integrate teaching guidance responsibilities into mentor career development evaluations, offering special rewards and priority development opportunities to outstanding mentors. Concurrently, the school and enterprise partners have established dedicated funding for the dual-mentor system and jointly established master workshops. This initiative provides ample resources and platform support for mentors to conduct teaching and practical training activities, continuously enhancing the collaborative educational capabilities of the dual mentors.

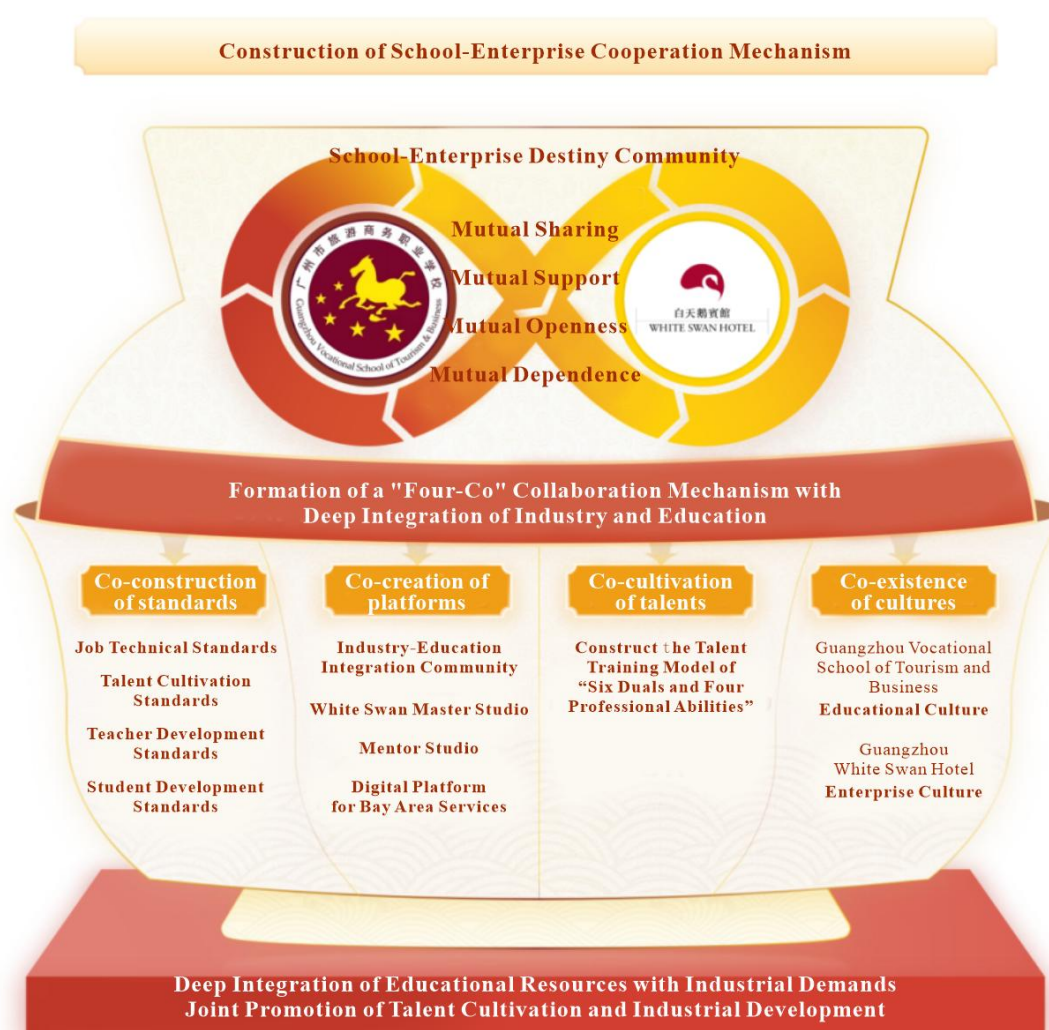
5. Case Practice: Construction And Innovation of The Dual-Mentor System Between Schools And The White Swan Management Trainee Program

5.1 Mutual Embedment of Symbiotic Units: Establishing a "Four-Co" Collaboration Mechanism for School-Enterprise Cooperation

This case study, grounded in the analytical framework of symbiosis theory, reveals that the mutual embedding of symbiotic units constitutes the core foundation for the sustainable operation of the dual-mentor system between schools and enterprises. Its essence lies in breaking down the boundaries between schools and enterprises as distinct entities. Through the deep integration of resources, responsibilities, and objectives, the two symbiotic units are transformed from “parallel entities” into a “community with a shared future.”

Figure 1

"Four-Co" Collaboration Mechanism: A School-Enterprise Cooperation Mechanism in This Case



From the perspective of symbiotic unit attributes, schools and enterprises—as the core symbiotic units of the dual-mentor system—possess inherent complementarity in resource endowments and functional positioning: schools offer systematic knowledge transmission systems and specialized faculty, while enterprises provide authentic workplace scenarios and cutting-edge industry demands. The core value of the "Four-Co" Collaboration Mechanism lies in activating this complementarity through institutional design, propelling symbiotic units from “resource isolation” toward “deep mutual embedding.”

Specifically, the co-construction of standards clarifies the common objectives and value orientations of the symbiotic units, integrating corporate job requirements and school educational goals into a unified evaluation system, thereby resolving the misalignment of objectives between schools and enterprises. The co-creation of platforms establishes interfaces for the exchange of materials, energy, and information among symbiotic units. Through vehicles such as industry-education integration communities and master studio, it provides stable interactive channels for implementing the dual-mentor system. The co-cultivation of talents represents a direct manifestation of the functional complementarity among symbiotic units. Through the "Six Duals and Four Professional Abilities" talent cultivation model, it achieves a synergistic enhancement by combining the theoretical grounding provided by school mentors with the on-the-job guidance offered by enterprise mentors. The co-existence of cultures provides a spiritual bond for the long-term and stable cooperation among symbiotic units. By integrating the educational culture of Guangzhou Vocational School of Tourism and Business with the corporate culture of the White Swan Hotel, it fosters a symbiotic atmosphere that combines both educational and industrial characteristics, thereby enhancing the cohesion and sense of belonging among the symbiotic units.

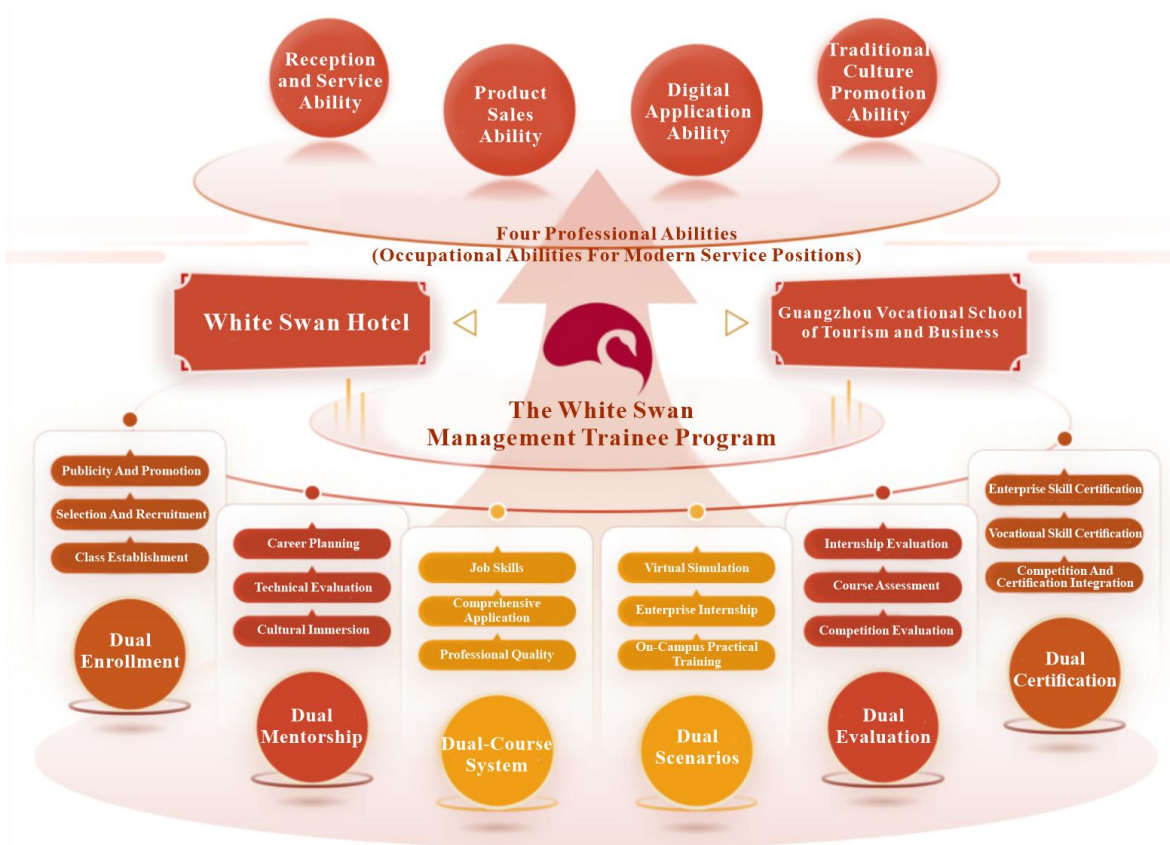
The construction of the "Four-Co" Collaboration Mechanism for school-enterprise cooperation is essentially the deepening and expansion of the inter-embedding logic of symbiotic units in symbiosis theory. It not only achieves functional complementarity and goal alignment among symbiotic units through resource integration and delineation of responsibilities, but also optimizes symbiotic interfaces and environments by establishing institutional platforms and fostering a shared culture. This drives the evolution of university-enterprise collaboration from superficial cooperation to a deeply integrated symbiotic mode.

5.2 Symbiotic Mode Collaboration: Building a “Six Duals and Four Professional Abilities” Talent Development Model

In this case, symbiotic mode coordination serves as the core driving force propelling the school-enterprise dual-mentor system from superficial collaboration toward deep integration. Its essence lies in optimizing interaction patterns among symbiotic units to elevate symbiotic relationships from skewed mutual benefit to symmetrical reciprocal symbiosis. The “Six Duals and Four Professional Abilities” talent cultivation model developed by the task force can be explained through the evolutionary dimension of symbiotic modes, revealing its underlying framework and operational logic.

Figure 2

The "Six Duals and Four Professional Abilities" Talent Cultivation Model Constructed in This Case



From the perspective of the evolution of the symbiotic mode, the "Six Duals" system (dual enrollment, dual mentorship, dual-course system, dual scenarios, dual evaluation, and dual certification) constitutes the core operational framework for the dual-mentor system between schools and enterprises. Its design logic is closely aligned with the collaborative requirements of the symbiotic mode. Dual enrollment and dual certification, achieved through joint student selection and collaborative skill certification by schools and enterprises, realize bidirectional synergy at both the "entry" and "exit" points. This approach integrates enterprise employment standards into the entire talent cultivation process, thereby resolving misalignment in objectives between schools and enterprises. Dual mentorship and dual-course system, featuring theoretical grounding by on-campus mentors and on-the-job guidance by enterprise mentors, along with the deep integration of theoretical courses from schools and practical courses from enterprises, achieve functional complementarity and resource interpenetration among symbiotic units. Dual scenarios and dual evaluation, through the switching of settings between on-campus practical

training and enterprise positions, as well as the diversified evaluations jointly conducted by schools and enterprises, establish an interactive interface among symbiotic units, facilitating precise alignment between the educational process and industry demands. The "Four Professional Abilities" (reception and service ability, product sales ability, digital application ability, and traditional culture promotion ability), serving as the core objectives of talent cultivation, not only represent the value orientation for synergy within the symbiotic model but also embody the concentrated manifestation of symbiotic energy. These four professional abilities align directly with the essential requirements of modern service roles. Through the coordinated implementation of the "Six Duals" system, they seamlessly integrate academic knowledge imparted by the institution with practical skills developed through corporate partnerships. This approach ultimately achieves a systematic enhancement of students' professional abilities.

The "Six Duals and Four Professional Abilities" talent cultivation model is fundamentally based on symbiosis theory, representing a deepening and expansion of the collaborative logic inherent in symbiotic patterns. It not only establishes a stable interactive framework through the "Six Duals" system but also clarifies the direction of collaboration via the "Four Professional Abilities" objectives. This propels both schools and enterprises from unilateral supply to mutual empowerment, and from short-term cooperation to long-term symbiosis. It provides a replicable theoretical framework and practical pathway for resolving real-world challenges in the dual-mentor system for secondary vocational education, such as "unclear responsibilities and authority" and "ineffective collaboration."

5.3 Building Symbiotic Interfaces: Establishing Three Platforms and Three Bases Based on the Guangdong-Hong Kong-Macao Greater Bay Area Modern Service Industry Industry-Education Integration Consortium

Within the analytical framework of symbiosis theory, the symbiotic interface serves as the core medium for the exchange of materials, energy, and information among symbiotic units, and its degree of perfection directly determines the operational efficiency and evolutionary direction of the symbiotic relationship. The White Swan Management Trainee Program draws support from the Guangdong-Hong Kong-Macao Greater Bay Area Modern Service Industry Industry-Education Integration Community to establish a practical system featuring "three platforms and three bases," which can be theoretically interpreted from the perspective of symbiotic interfaces.

From the perspective of symbiotic interface functionality, the "three platforms" (talent cultivation platform, resource sharing platform, and standard co-construction platform) and the "three bases" (internship and training base, research and development training base, and employment and entrepreneurship base) collectively form the core interactive vehicle for the school-enterprise dual-mentor system. Its design logic aligns closely with the collaborative requirements of the symbiotic interface. The three platforms focus on collaborative empowerment: the talent cultivation platform implements dual-mentor teaching and process management; the resource-sharing platform facilitates two-way exchange of faculty, curricula, and practical training resources between universities and enterprises; and the standard co-construction platform ensures alignment between educational standards and industry standards. Together, they provide stable institutional and technical support for interactions among symbiotic units. The three bases emphasize scenario implementation: the internship and training

base provides students with authentic workplace practice scenarios; the research and development training base serves as a platform for dual mentors to conduct teaching research and enhance skills; and the employment and entrepreneurship base bridges student career development with corporate talent reserves. This transforms the symbiotic interface from an abstract institutional design into a tangible practical space.

Figure 3

The "Three Platforms and Three Bases" Construction Model Based on the Industry-Education Integration Community



Meanwhile, the community has further enhanced the connectivity of its symbiotic interfaces through the “White Swan Master Studio,” “Mentor Studio,” and “Digital Platform for Bay Area Hotel Management Services.” White Swan Master Studio and Mentor Studio, serving as the core

teaching and research platforms for the dual-mentor system, have driven deep integration between university and industry faculty while fostering pedagogical innovation. The digital platform, through functional modules such as competition training, continuing education, employee recruitment, technology research and development, and skills certification, has achieved a digital upgrade of the symbiotic interface, enhancing the efficiency of resource flow and information exchange.

The establishment of the “Three Platforms and Three Bases” not only overcomes the challenges of physical separation and information barriers between universities and enterprises through the integration of physical spaces and digital platforms, but also drives the evolution of symbiotic interfaces from one-way channels to two-way hubs via institutional platform design. This provides a stable support system for the long-term operation of the dual-mentor system. This represents a deepening and expansion of the logic underlying the establishment of symbiotic interfaces, effectively addressing the practical challenges of “resource fragmentation” and “collaborative inefficiency” within the dual-mentor system of vocational schools and enterprises.

5.4 Outcomes of Talent Development in the White Swan Management Trainee Program Under the Dual-Mentor System

Through years of implementation, the school-enterprise dual-mentor system in the White Swan Management Trainee Program has yielded remarkable educational outcomes and industrial value. It has achieved a win-win situation for students, institutions, enterprises, and industries, validating the effectiveness and feasibility of the dual-mentor system's collaborative mechanism from a symbiosis theory perspective.

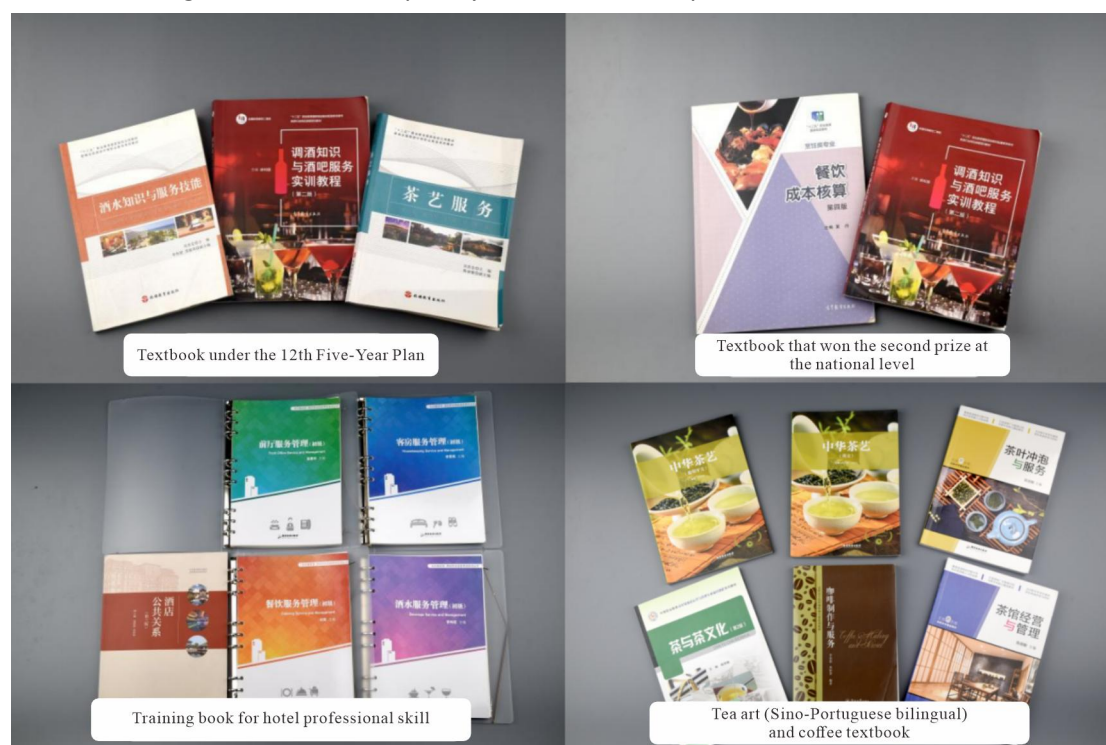
Notable Quality Rise in Talent Cultivation and Prominent Student Career Potential. The implementation of the dual-mentor system has achieved a deep integration of theoretical and practical instruction, significantly enhancing students' comprehensive professional competence and job readiness. Meanwhile, the career loyalty and job retention rates of specialized program students have significantly improved. Through “high-match employment and high-quality retention,” graduates of the White Swan Management Trainee Program have become high-quality reserve talent for the hospitality industry. At the 2024 National Star-Rated Hotel Service Skills Competition, the White Swan Hotel honored 11 award-winning young employees, nine of whom were graduates of the Guangzhou Tourism and Hospitality College, primarily from the White Swan Management Trainee Program. Over the past three years, students from the White Swan Management Trainee Program have twice won gold medals at the World Skills Competition and multiple first prizes at the Guangdong Provincial Vocational College Skills Competition.

Enhanced School Operational Strength and Deepened Industry-Education Integration. The implementation of the dual-mentor system between schools and enterprises has driven innovation in the school's educational model and talent cultivation approach, continuously enhancing its institutional strength and industry influence. Two textbooks jointly developed by the White Swan Management Trainee Program and the White Swan Hotel's industry-academia mentor team received a national second prize. The program has secured 25 patents, co-authored

eight volumes in a hotel vocational skills training series, and served over 180 catering enterprises, establishing itself as the authoritative training material for China's hospitality industry. Additionally, the school spearheaded the establishment of the Guangdong-Hong Kong-Macao Greater Bay Area Vocational Education Alliance and the Bay Area Modern Service Industry Industry-Education Integration Consortium. It became the sole national teacher training base for secondary vocational education in the province, with dual mentor teams from schools and enterprises serving as the main force. Through online and offline training, it has provided instruction to 23 provinces and municipalities nationwide, training over 9,000 teachers.

Figure 4

Various Teaching Materials Developed by The School-Enterprise Dual-Mentor Team



Effectively Meeting Enterprise Talent Demands and Sustaining Industry Competitiveness Enhancement. The dual-mentor system between schools and enterprises has supplied companies with a large number of high-quality talents who demonstrate strong cultural alignment, solid skills, and high professional loyalty, effectively alleviating the structural talent shortage faced by enterprises. Over the past four decades, the school has provided the White Swan Hotel with over 100,000 highly skilled technical professionals. Nearly 60% of the hotel's employees are graduates of Guangzhou Vocational School of Tourism and Business, with 33 of them advancing to senior management positions such as General Manager and Quality Control Director. Graduates of the White Swan Management Trainee Program quickly adapt to corporate

job requirements, enhancing service quality and operational efficiency while developing into core personnel for frontline service operations. The collaborative efforts between the university and the enterprise in curriculum development and skills training have significantly advanced the company's talent development and technological innovation, thereby enhancing the core competitiveness of the White Swan Hotel.

6. Experience Summary: Key Elements of the Collaboration Between Dual Mentors from Schools and Enterprises

6.1 Adhere to the Deep Integration of Dual Entities and Establish a Symbiotic Cooperative Ecosystem Based on Shared Interests

In this case, building upon the forty-year foundation of deep industry-academia collaboration between Guangzhou Vocational School of Tourism and Business and the White Swan Hotel, the dedicated task force consistently treats the enterprise as an equal partner in education. Through a "Four-Co" Collaboration Mechanism, it achieves joint standard-setting, platform co-creation, talent co-development, and cultural symbiosis, integrating corporate staffing needs throughout the entire talent cultivation process. This approach precisely aligns with the strategic positioning of “deepening industry-education integration and school-enterprise collaboration” outlined in the Vocational Education Law. It overcomes the traditional dilemma of enthusiastic schools and reluctant enterprises by establishing a shared-interest community between institutions and businesses. This shift transforms enterprises from passive participants into active co-builders, laying a solid foundation for the sustainable operation of the dual-mentor system between schools and enterprises.

6.2 Strengthen the Coordination of Dual Mentors' Responsibilities and Authority to Create a Closed-Loop Educational System Integrating Training and Development

The White Swan Management Trainee Program in this case employs a “Six Duals and Four Professional Abilities” talent development model. Under this framework, campus mentors focus on building theoretical foundations and cultivating core competencies, while corporate mentors concentrate on on-the-job training and industry guidance. Throughout the talent development process, both campus and corporate mentors collaborate seamlessly, complementing each other's roles and responsibilities. This design aligns with the national requirement to “implement a dual-mentor system integrating education and training,” embedding the dual-mentor approach throughout the entire talent development process—from recruitment and instruction to practical training and assessment. It achieves dual-scenario education combining classroom learning with on-the-job training, effectively resolving the practical challenges of unclear responsibilities and weak coordination among mentors. This enhances the alignment between talent cultivation and industry demands.

6.3 Establish a Diverse and Symbiotic Interface to Improve the Support System for Long-Term Safeguards

Leveraging the Guangdong-Hong Kong-Macao Greater Bay Area Modern Service Industry Education-Industry Integration Consortium, the task force has established “three platforms and three bases.” Through vehicles such as master workshops and digital platforms, it has built a core interface for the flow of resources and information exchange between schools and enterprises. By integrating physical spaces with digital platforms, the White Swan Management Trainee Program has effectively overcome the disconnect between school and enterprise resources. It provides stable institutional, resource, and technical support for implementing the dual-mentor system, thereby advancing vocational education collaboration from formality to substance.

7. Conclusions and Future Outlook

Building upon a systematic and in-depth analysis of the dual-mentor system implemented by Guangzhou Vocational School of Tourism and Business's White Swan Management Trainee Program, this case study employs symbiosis theory as its analytical framework. By innovatively establishing a three-dimensional collaborative mechanism—comprising “symbiosis unit interbedding, symbiosis model coordination, and symbiosis interface support”—it demonstrates how vocational institutions can effectively overcome practical challenges within the dual-mentor system, such as “enthusiastic schools but lukewarm enterprises,” “unclear responsibilities,” and “fragmented resources.” This approach achieves substantial breakthroughs in fostering a collaborative school-enterprise education ecosystem and enhancing educational effectiveness. The White Swan Management Trainee Program in this case study has significantly enhanced students' job readiness, career identity, and employment stability. It has strengthened the school's industry-education integration capabilities and institutional capacity while supplying partner enterprises with highly skilled professionals who demonstrate strong cultural alignment and high growth potential. Ultimately, this initiative has fostered a win-win ecosystem where students thrive, the school elevates its standards, enterprises gain benefits, and the industry advances. The successful implementation of the dual-mentor system in this case study not only validates the explanatory power and applicability of symbiosis theory in vocational education's industry-academia collaborative training but also provides a replicable and scalable solution to address the common challenges and pain points of such systems becoming merely formalistic and lacking effective collaboration.

The innovation of this case study manifests in three key aspects. First, theoretical perspective innovation: this case pioneers the systematic application of symbiosis theory to research on the dual-mentor system in vocational education, establishing an analytical framework comprising “symbiosis units, symbiosis modes, symbiosis interfaces, and symbiosis environments.” This enriches the theoretical foundation of the dual-mentor system in vocational education. Second, in terms of practical innovation, this case study pioneers the “Four-Co” Collaboration Mechanism and the “Six Duals and Four Professional Abilities” talent development model. It provides a clear operational guide for vocational institutions to implement the dual-mentor system, demonstrating strong potential for replication and practical application. Third, the case study stands out for its exemplary nature. Leveraging the Guangzhou Vocational School of

Tourism and Business and the White Swan Hotel—a high-quality university-enterprise partnership with four decades of collaborative history—the dual-mentor system demonstrates both authority and persuasiveness. This significantly enhances the research findings' exemplary value and potential for broader impact.

This case study also has certain limitations. First, the selected case focuses on a single high-quality school-enterprise cooperation project. Its advantageous resource conditions and deep cooperative foundation may limit the applicability of this model in areas with weaker foundations or in small and medium-sized enterprises. Second, while the case data collection strives for diversity, micro-observations and long-term tracking of the dual-mentor collaboration process could be further deepened. Additionally, there is a lack of long-term tracking data on students' career development trajectories. Finally, the case study indicates that the quantitative evaluation system for the educational effectiveness of the dual-mentor system remains incomplete, particularly regarding the precise measurement of symbiotic energy and collaborative efficacy, which requires further exploration.

Based on this, future research can be further deepened in the following three areas. First, comparative studies across regions and across project types (such as different majors and different enterprise sizes) can be conducted to test the adaptability of the model and identify directions for optimization. Second, longitudinal tracking methods can be employed to assess the sustained impact and effectiveness of the dual-mentor system on students' medium-to-long-term career development. Finally, a multidimensional quantitative indicator system can be developed to measure the effectiveness of the dual-mentor system in school-enterprise collaborations. This will enhance the scientific rigor and scalability of evaluations. Additionally, the feasibility of leveraging digital platforms—such as virtual simulation training systems and dual-mentor collaborative management platforms—to improve the operational efficiency and coordination of the dual-mentor system should be explored.

Declaration of competing interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Reference

- Ba, J. H. (2019). Research on the “dual-tutor” guidance model in higher vocational colleges under the school-enterprise collaborative education mechanism. *Journal of Ningbo Polytechnic*, 23(1), 7–10, 43.
- Chen, J. (2022). Exploration and practice of the school-enterprise cooperative talent training model from the perspective of industry-education integration. *Health Vocational Education*, 40(12), 8–9.
- Deng, M. Y. (2013). Exploration of the “trinity” dual-tutor system talent training model based on school-enterprise cooperation. *Vocational and Technical Education*, 34(20), 57–59.
- Fu, B., He, N. N., Lü, Z. Y., Zhao, P. J., & Ma, C. Q. (2020). Research on the higher vocational

- “dual-tutor collaborative education” mechanism under the background of diversified student sources. *Higher Vocational Education Exploration*, 19(6), 54–62.
- Gan, Y. T., & Huang, R. (2025). Symbiosis dilemmas and optimization paths of industry-education integration in vocational education under the background of digital transformation. *Journal of Hebei Normal University (Educational Science Edition)*, 27(3), 107–113.
- Han, J. F. (2011). Construction of double-qualified teaching teams under the dual-subject school-running mode of schools and enterprises. *Journal of Guangxi University for Nationalities (Philosophy and Social Sciences Edition)*, 33(6), 178–181.
- Han, X., & Zhang, J. Z. (2020). Effects, dilemmas and directions of modern apprenticeship with Chinese characteristics. *Education and Vocation*, (24), 41–46.
- Li, P., & Li, Z. Y. (2022). Implementation dilemmas and solutions of the dual-tutor system in higher vocational education. *Education and Vocation*, (24), 96–101.
- Li, Y. J., & Li, Z. Y. (2023). Components, basic characteristics and practical paths of high-level apprenticeship talent training models: A qualitative study based on grounded theory. *Modern Education Management*, (12), 100–107.
- Liu, Y. L., & Wu, N. Z. (2021). Theoretical framework and practical paths of “remote collaboration” modern apprenticeship under the background of school-enterprise separation. *Education and Vocation*, (19), 34–41.
- Qi, Y. L., Zhang, S., Lin, B. C., Xue, B., & Ren, Y. R. (2022). Exploration and practice of the collaborative education model of “dual tutors” and “dual platforms”. *Higher Education of Chemical Engineering*, 39(3), 42–47.
- Song, J. Y., & Zhang, Y. B. (2022). Research on the construction of a symbiotic system for cooperation between higher vocational colleges and enterprises. *Education and Vocation*, (12), 55–61.
- Sun, H. Z., & Xu, H. (2024). Connotation, system, current situation and paths of symbiotic dynamics in vocational education school-enterprise cooperation from the perspective of symbiosis theory. *Journal of Nanning Normal University (Philosophy and Social Sciences Edition)*, 45(4), 168–179.
- Xu, Y. (2021). Responsibility analysis and path adjustment of enterprise participation in modern apprenticeship from the perspective of symbiosis theory. *Journal of Vocational Education*, 37(9), 21–25.
- Yan, J. J., Wang, X. F., & Li, A. P. (2020). Exploration of the school-enterprise collaborative education model based on the dual-tutor system. *Chinese Medicine Modern Distance Education of China*, 18(15), 174–176.
- Zeng, T., & Shi, L. Y. (2024). Construction and practical paths of the symbiotic network of industry-education integration community. *Education Research Monthly*, (10), 91–97.
- Zhang, C., & Li, J. S. (2018). Exploration and practice of “dual-tutor” team construction for cooking majors in modern apprenticeship. *Vocational and Technical Education*, 39(11), 64–66.
- Zhao, H. J., Lü, M., & Wang, Z. G. (2019). Research and practice on the construction of dual-tutor teams in modern apprenticeship. *Education and Teaching Forum*, (16), 16–17.

- Zhao, X. F. (2021). School-enterprise community of shared destiny in vocational education: Theoretical logic, connotative characteristics and action paths. *Vocational and Technical Education*, 42(25), 69–74.
- Zhou, Y. B., & Xiao, G. L. (2023). Development dilemmas and promotion strategies of the industry-education integration symbiosis in vocational education: From the perspective of symbiosis theory. *Journal of Soochow University (Educational Science Edition)*, 11(2), 80–87.

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世界职业院校技能大赛政策落地与实践矛盾优化研究 —— 基于五所职业院校的考察分析

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世界职业院校技能大赛政策落地与实践矛盾优化研究 —— 基于五所职业院校的考察分析

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摘要

世界职业院校技能大赛已成为推动职业教育改革的重要制度载体，但其政策落地与实践运行之间存在结构性矛盾。本研究通过梳理2005年以来我国职业院校技能大赛三阶段政策演进历程，结合对广西、广东五所中高职职业院校的实地调研与半结构化访谈，系统剖析政策落地中的核心矛盾。研究发现：顶层普惠育人政策与基层精英化备赛形成结构性冲突；统一竞技规则与中高职分层发展的适配性不足；赛教融合导向下成果转化机制薄弱；综合育人评价要求与赛事实操评价的导向存在偏差。针对上述矛盾，从重构普惠育人体系、优化赛制规则设计、深化产赛教融合机制、完善综合评价体系四个维度提出优化路径，旨在推动世校赛从“赛事竞技”向“育人赋能”转型，实现政策价值与实践成效的深度统一。

关键词：世界职业院校技能大赛；政策落地；实践矛盾

1. 引言

现有研究普遍认为，世界技能大赛及世界职业院校技能大赛已成为推动职业教育改革的重要制度载体。相关研究首先聚焦于赛项标准的变化及其对我国职教体系的影响，指出赛事标准具有岗位真实性、过程导向和动态更新等特征，能够反映产业技术迭代趋势，并为课程标准重构提供参照（刘东菊，2012；刘东菊&王晓辉，2013；李杰，郭达，张瑞&陈晓曦，2018）。进一步地，有研究强调，赛事技术文件不仅规定操作程序，还通过评价指标体系强化质量控制、效率意识与安全规范，体现出由“结果评价”向“能力评价”的转向（李杰，郭达，张瑞&陈晓曦，2018；周衍安，2021）。

围绕政策落地与实践转化，学界形成的共识是：赛事标准对职业院校具有明显的示范效应，但其进入常态教学仍存在适配问题。一方面，赛事导向有助于倒逼专业教学改革、提升技能训练质量和职业素质水平（刘东菊，2016）；另一方面，也有研究提醒，若过度强调竞赛成绩，容易形成竞赛至上的功利化导向（张宏亮，2011）。这说明，直接引入世界级竞赛标准，也难以自动转化为学校层面的教学改进，其落地效果会受到专业结构、教师能力、训练资源和管理机制等多重因素制约。

在制度优化路径上，研究逐步从“如何参赛”转向“如何育人”。李静波指出，新时代职业院校技能大赛不再局限于单一技能比拼，转向综合育人导向，在赛制不断创新的同时，注重团队协作与职业素养的协同考察。（李静波，申培轩&耿洁，2025）。张俊勇则从职业教育整体发展角度指出，世界技能大赛能够从外部推动职业院校优化专业建设、提升师资水平、改进人才培养模式，而赛事发挥长效作用的核心，在于将竞赛理念、训练经验转化为常态化的教学内容与实训模式（张俊勇&张玉梅，2018）。因此，现有研究已经为“政策—学校—课堂”链条提供了理论基础，但对不同类型职业院校在政策承接、资源配置和实践执行中的差异性讨论仍不充分。

基于此，本研究以五所职业院校为样本，重点考察世界职业院校技能大赛政策在学校层面的落地过程及其现实矛盾，具有较强的问题导向与补充价值。现有文献更多从标准、赛制和理念层面展开，对政策如何在不同学校中被解释、转化和执行的研究相对不足。因此，本研究揭示政策落地中的偏差来源，并提出更具可操作性的优化路径。

2. 政策梳理

职业教育领域关于“职业院校技能大赛”相关政策的发展主要经历了三个阶段：初步探索阶段、制度建立阶段、国际化转型与高质量发展阶段。在初步探索阶段，政策重点在于建立国内职业院校技能竞赛体系；在制度建立阶段，政策逐步明确了竞赛的组织架构和运行机制；在国际化转型与高质量发展阶段，政策着重于构建国际赛事平台，推动中国职业教育“走出去”。

2.1 初步探索阶段（2005—2010年）：从试验区探索到国赛常态化

2005年8月19日，全国首个国家职业教育改革试验区落户天津。随后，天津市政府和教育部联合制定了提出：“每两年举办一次全国职业院校学生职业技能大赛，邀请国内外知名企业积极参与。”这是将举办全国职业院校技能大赛首次写进政策议程（天津市人民政府&中华人民共和国教育部，2006）。2007年，国家职业教育改革试验区领导小组第二次会议在天津举行。会议决定，从2008年起，每年5月教育部和天津市政府等共同在天津举办“全国职业院校职业技能大赛”。这是全国职业院校技能大赛制度正式确立的标志性决策（中华人民共和国教育部，2007）。2008年，

教育部正式印发《关于举办2008年全国职业院校技能大赛的通知》，这是大赛制度正式确立的标志性文件，也是决策结果向全系统传达的正式公文（中华人民共和国教育部，2008）。同年6月，首届全国职业院校技能大赛在天津正式开幕。在开幕式上，时任教育部部长周济提出，要通过定期举办全国职业院校技能大赛，形成“普通教育有高考，职业教育有技能大赛”的局面（周济，2008）。周济的这一讲话，标志着大赛制度从政策文本走向社会共识，也确立了其与高考并行的制度地位。

早在2002年和2007年，长春、重庆等地就曾尝试过举办大赛，但这些大赛仅是依附于会展活动的配套活动，并非独立的国家级大赛（中华人民共和国教育部，2009）。而且这些赛事，仅限中职生参加，规模小、覆盖面窄，影响力有限。但是自2008年起，大赛通过独立设赛、纳入高职、国家部委联办、固定周期地点与经费，将大赛制度化、国家化，成为“职教高考”式的常设品牌赛事。

地方层面的政策在初步探索阶段已经开始建立。2008年，教育部发布《关于举办2008年全国职业院校技能大赛的通知》，各省、市、自治区与国赛有关的政策文件较少，主要以转发该通知、组队参赛为主，核心是落实首届全国职业院校技能大赛参赛工作。以深圳市为例，2008年深圳市教育局，计划单列市单独组队参赛（深圳市教育局，2008）。

在此阶段，核心成就是完成了大赛制度从“构想”到“落地”的全过程。政策工具以“行政动员”为主，通过高层会议决策、年度工作要点部署、正式通知发布等递进式文件体系，确立了大赛的制度合法性。“普通教育有高考，职业教育有大赛”的话语建构，为大赛赋予了与高考比肩的象征地位，成为后续政策深化的话语基础。

2.2 制度建立阶段（2011—2018年）：三级竞赛网络的形成与制度深化

2011年，为了充分发挥地方产业和职教资源优势，教育部决定将部分赛项安排在江苏、山东两个分赛区举办（中华人民共和国教育部，2011），这一举动为2012年正式启动分赛区的实践探索奠定了基础。到2012年，全国分赛区数量增加至十个，形成了“多点办赛、全国联动”的格局（中华人民共和国教育部，2012）。

2013年，教育部出台了《全国职业院校技能大赛三年规划（2013-2015年）》，首次以三年专项规划形式对大赛体系构建、赛事制度、赛项设置、参赛资格及分赛区建设作出系统顶层设计，明确高职、中职参赛年龄限制、获奖比例及赛项总量控制等刚性要求，为大赛制度化、规范化发展奠定基础（中华人民共和国教育部，2013）。2018年，教育部等37部门联合印发《全国职业院校技能大赛章程》，这是第一部国家级大赛章程、大赛的根本性文件。该章程取消了“天津主赛区”，此前2019年之前天津一直作为大赛主赛区，此后大赛逐步走向全国化，真正形成了“办赛

在全国、受益在全国”的局面；固化校赛—省赛—国赛三级竞赛链，明确“校校有比赛、省省有竞赛、层层有选拔”（教育部等37部门，2018）。需注意的是，2021年教育部等35部门联合印发了新修订的《全国职业院校技能大赛章程》，2018年印发的版本随之作废。

制度建立阶段的核心成就是完成了大赛从“单一赛事”到“三级体系”的制度化转型。2018年章程的出台为大赛提供了根本性的制度框架，明确了“以赛促教、以赛促学、以赛促改”的核心宗旨。地方层面的制度创新开始涌现，各地的实践表明，竞赛已成为撬动区域职业教育改革的重要杠杆。

2.3 国际化转型与高质量发展阶段（2019 - 至今）：接轨国际，聚焦育人与成果转化

2020年，大赛开启“试点赛”改革，在办赛机制、申办主体、经费投入等方面做出重大调整。教育部强调要“建立以地方政府背书、职业院校为主体的申办机制”，遴选40个赛项开展大赛试点工作，以期通过试点，明确各方职责，强化职业院校办赛主体作用，完善制度体系，促进职业教育质量提升（中华人民共和国教育部，2020）。在2022年大赛赛事组织过程中，山东赛区投入1200万元、广东赛区投入800万元、甘肃赛区投入718万元、青海赛区投入598万元等专项经费，保障了赛项顺利举办，充分体现了新模式的有效性（曾天山，房风文，陈宏辉&刘晓辉，2024）。地方政府从“被动参与”转向“主动投入”，折射出竞赛政策与地方发展需求之间的激励机制正在形成。

2024年是中国职业技能竞赛史上具有里程碑意义的一年，全国职业院校技能大赛正式升级为世界职业院校技能大赛（中华人民共和国教育部，2024）。这一升级不仅仅是名称的变化，更意味着赛事定位、标准、功能的全方位重构。

2025年，安徽省教育厅发布《关于进一步加强职业院校大赛管理工作的通知》，提出构建涵盖专家管理、赛事管理、资源共享的一体化平台（安徽省教育厅，2025）。湖北省则提出了“推荐队+抽测队”的组队模式——既有学校自主推荐的“精英队”，也有随机抽取产生的“抽测队”，这一创新意在防止“为赛而赛”的精英化偏向，确保竞赛能够带动全体学生而非少数“参赛专业户”（湖北省教育厅，2025）。

高质量发展期的另一个核心议题，是竞赛成果的转化问题。2026年4月，广东省出台了全国首份世赛成果转化专项文件——《关于推动世赛成果转化加强高技能人才培养的指导意见》，文件中提出，要走“政府引导、基地支撑、院校主体”的路子，推动竞赛标准向教学标准、训练方法向实训方法、竞赛场地向实训场地进行转化，标志着竞赛政策的重心从“办赛”转向“用赛”。（广东省人力资源和社会保障厅，2026）。

国际化转型与高质量发展阶段的核心成就是完成了大赛从“国内赛”到“世界赛”、从“技

能比武”到“综合育人”的全面升级。2026年的政策重点关注“成果转化”问题，如何将“金牌标准”转化为“普遍质量”，成为政策制定者关注的核心命题。

经过这三个阶段的迭代升级，全国职业院校技能大赛已经从天津试验区的构想，成长为覆盖全球的赛事品牌，成为推动中国职业教育改革发展、支撑产业技能升级、促进国际职业教育交流合作的核心平台。这三个阶段的政策演进，既体现了国家对职业教育技能培养重视程度的不断提升，也反映出中国职业教育从跟随发展到主动引领的发展轨迹，更为下一步构建具有中国特色、世界水平的职业教育竞赛体系奠定了坚实基础。

3. 世界职业院校技能大赛发展的现实困境

本文采用半结构化访谈的研究方法，在2026年4月1日至4月3日，对广西柳州以及广州职业院校进行实地调研，其中共访谈中等职业院校和高等职业院校在校师生共计15人。主要围绕师生参与世界职业院校技能大赛现状、获奖状况等几个问题展开。对受访者进行编码，其中学生10人（A），教师5人（B）。结合访谈结果与参与式观察，总结出世界职业院校技能大赛目前所存在的四点困境。

序号	院校编码	日期	地区	人物及职务	人员代码
1	ZA	2026.3.31	广东	咖啡班一年级学生	A1
2	ZA	2026.3.31	广东	中餐烹饪系主任	B1
3	ZA	2026.4.1	广西	酒店管理专业三年级学生	A2
4	ZB	2026.4.1	广西	旅游与康养学院院长	B2
5	GA	2026.4.2	广西	中西面点专业学生	A3
6	GB	2026.4.2	广西	学校副校长	B3

表1 访谈者信息

3.1 中高职同台竞技：中职院校存在天然劣势

世界职业院校技能大赛实行初赛、复赛、总决赛三级赛制，其中初赛由各院校组织，复赛由省级教育行政部门组织。总决赛进一步划分为争夺赛、排位赛、冠军总决赛三个阶段，争夺赛在28个国内赛区和4个海外赛区同步开展，排位赛与冠军总决赛均在天津举办。赛事采用逐层晋

级模式，既拓宽了参赛覆盖面，也增强了赛事的竞技性与观赏性（李静波，2026）。按照世界职业院校技能大赛最新赛事规则，排位赛取消分赛道界限（仍保留中高职分组），冠军总决赛初评及现场环节取消中高职分组限制、不区分赛道，这就意味着总决赛阶段实现中高职同台竞技、统一评审标准，不再按办学层次分开评比。理论知识和技能方面，在中高职一体化的导向下，高职学生完成了中等职业院校的学习，具备一定的技术技能素养，同时专业理论课程的学习也使其对于知识和技能有了更深刻的了解，能够挖掘技能背后的理论深度和深刻内涵。因此相较于高职学生，中职学生在专业理论基础、知识体系深度等方面存在短板。“我们会把大纲、比赛方案、计划书都写好，帮学生设计一个比赛的主题，可能是与文化相关或者地区特色相关的。学生通过练习把比赛整个流程完整熟悉的走下来就行”（B2）。广西一所中职院校的老师表示，在比赛前期一些更为专业的设计上，几乎不由学生参与，均由带赛教师完成。这不仅是因为学生缺乏参赛的经历，更深层原因在于学生缺乏知识以及文化的储备和积累。在经费和技能支持上，我国高等职业院校教育经费投入稳步增加，国家对于高等职业院校的经费投入高于中等职业院校。即使是在省或市级项目的支持下，相较于高等职业院校，中职院校在实训经费、设备与资源投入方面存在明显差距。省级赛事晋级后，面对更强竞争对手，多数中职选手止步国赛争夺赛，难以冲击更高赛事奖项，从而使得赛事竞技的分层公平性与规则合理性亟待优化。

3.2 成果和资源转化薄弱：校企合作深度化缺失

在赛事成果上，缺乏将比赛成果反哺于企业、运用于实际。赛事获奖成果是否仅仅是纸上谈兵的一纸方案，而无法转化为能够真正惠及企业及市场运作，能够切实吸引消费者提升满意度的有效实践。职业技能大赛，由“职业”和“技能”构成，比赛过程及结果需要以有利于未来职业发展为目标，以提高学生技能为出发点。在企业的帮助和支持下实现技能来源于企业，反哺于企业。在大赛资源转化上，存在与课程教学实践、以及主体共享的局限。大赛要点中所要求的与岗位能力相关的技术和职业素养还尚未完全体现在教学中（徐梓榆&吴书龙，2025）。将大赛的要点和知识点融入日常的教学环节中还尚未形成完整的体系，执行力度也有所欠缺。此外，大赛的资源转化也主要集中在校内，还尚未实现成果与资源的双方共享。这一主要原因在于校企合作的深度化与协同效能参差不齐。在合作内容上，企业参与备赛指导、人才培养的深度不足，资源投入意愿有限。“我们会有一些摆盘相关的比赛，是广东省的比赛，不是职业技能大赛，其实大部分都是我们平时上课的内容，然后由上课的老师带我们训练”（A1）。“但是训练和上课还是很不一样的，老师会把一个一个步骤掰开揉碎了教学，我们穿的服装用的设备也和上课的时候完全不一样”（A2）。从访谈中得知，比赛训练模式和上课模式存在差别，除了教学内容以外，教学模式和教学设备均未实现共享。“他们收获最多的就是拥有了大赛的经验，以及那些技能更加熟练

和精细了。不过具体的转化要看他们未来的职场要求了”（B1）。受访老师表示，很多旅游相关的比赛以基础技能为主。在合作形式上，由于双方利益诉求差异，企业往往以盈利为目的，而职业院校承担着为国家和社会培养技术技能人才的责任，教育的长期性与企业追求的盈利性相悖，从而使得双方深度的长效合作机制缺失，大多数合作停留在挂牌共建，浅层交流层面，导致真正所需的设备供给、技术指导、岗位实践等关键环节衔接不畅，直接影响备赛质量与竞赛成绩。

3.3 实践应用价值导向弱化：评价体系亟待完善

世界职业院校技能大赛的核心在于搭建起“教育”与“产业”之间的桥梁。赛事不仅是学校教学课程改革，专业人才培养的“导向标”，更是行业前沿与实践热点的抓手（吴少森&徐燕铭，2026）。赛事发展出现了一个突出矛盾：职业技能竞赛的先进性与行业职业资格标准的适用性存在明显脱节。2025年世界职业院校技能大赛的评分标准由技能水平、职业素养、应用价值、团队合作、创新创业五项核心要素组成；其中技能水占比60%，其余评分要素各占10%（区崎云，2026）。在这五项核心要素框架下，将评价细化为15个观测点，每个观测点均有明确的内涵和分值，使评分标准更加清晰，进一步增强了评价（尤其是“职业素养”等）的客观性和操作性；同时，为克服部分项目存在的“重讲解、轻操作”现象，明确“技能水平”权重占60分，“现场讲解效果”仅占5分，有力引导大赛回归技能核心，进一步强化了技能考查（李静波，2026）。虽然经过改革之后，大赛评价由“重技能”向“德技并修转变”，大比例侧重对“技能水平”的评价，同时兼顾学生未来的职业素养符合世界职业院校技能大赛的“职业”与“技能”的要求。但值得关注的是，应用价值这一要素评估参赛项目的实用性、经济性和可持续性（区崎云，2026），反映了项目的实际应用潜力和社会影响；其中实用性这一项评估参赛项目是否针对具体问题提供了有效的解决方案，是否符合产业转型升级、区域经济社会发展等国家战略需求，是否有助于促进高质量就业、提升职业行动能力和职业迁移能力（区崎云，2026）。但应用价值这一要素占比也仅占10%，这就容易导致获奖作品可能更偏重舞台展示效果，忽视技术方案的落地性与现实应用价值。因此，需进一步细化项目成果落地应用的评判细则与考核标准，避免评分环节主观化，或是出现评价标准与产业现实脱节的问题。

3.4 比赛公平性局限：与“普惠性”相悖

当前备赛模式存在明显的“精英化”的特征。为在大赛中取得更好成绩，需要确保最优秀的师资和最先进的设备向少数学生集中，经过长时间的备赛、集中训练以及不断打磨，从而形成“尖兵作战”的模式。在这种模式下，大赛“覆盖面小”，无法面向所有学生，从而违背了学校教育的“普惠性”特征。此外，由于资金的限制以及学生学习水平与能力参差不齐，学校用于备

赛的设施设备以及教学用具，难以面向所有学生开放。“一年级或者二年级的学生一般不参赛，选拔主要面向三年级学生”（A3）。考虑到学生的知识和技能水平，参赛学生范围通常缩小到一个年级。“学校先会组织一支十人左右的集训队伍，队伍里的学生都是各班前几名，最后再选出最优秀的人去参加比赛”（B3）。受访的教师表示，能进入集训队的都是各班十分优秀的学生，但出于经费和获奖要求的考虑，不得不砍掉剩下的学生。因此赛事选拔竞争激烈，且存在公平性欠缺的问题，选拔往往不考量学生的个人兴趣，而是以能否为学校斩获奖项为核心导向。

4. 核心矛盾及优化路径

结合前文政策演进梳理与五所职业院校实地调研结果可知，世界职业院校技能大赛完成从国内赛事到国际赛事的升级转型后，政策顶层设计确立政府主导、学校主体、行业指导、企业支持、社会参与的办赛机制，同时坚持育人为本、成果转化的发展方向（[中华人民共和国教育部，2023](#)）。但在基层院校落地实践中，政策文本的理想目标与教学实操、赛事运行、人才培养现实之间形成多重结构性矛盾，原有制度体系、运行模式、资源配置、评价机制未能适配世校赛国际化、产业化、普惠化的全新定位。基于调研访谈数据与现有核心研究成果，系统拆解政策落地的四大核心矛盾，结合职业教育高质量发展要求与赛事改革趋势，提出针对性、可落地的优化路径，破解“政策空转”、“赛教脱节”、“精英竞赛”等现实难题，推动世校赛从“赛事比拼”真正转向“育人赋能”，实现政策价值与实践成效的深度统一。

4.1 政策落地与实践运行的核心矛盾解构

4.1.1 顶层普惠育人政策与基层精英备赛的结构性矛盾

当前世校赛顶层政策明确确立“全员育人、普惠赋能”的核心宗旨，2021年修订版《全国职业院校技能大赛章程》、2024年《世界职业院校技能大赛实施方案》均明确提出破除赛事精英化壁垒，构建“校校有比赛、人人可参与”的竞赛育人体系，要求赛事资源全面对接日常教学，覆盖全体职业院校学生（[教育部等35部门，2021](#)；[中华人民共和国教育部，2024](#)）。2025年湖北等地的地方政策创新，更是通过“推荐队+抽测队”模式、校级全员竞赛平台建设（[湖北省教育厅，2025](#)），进一步落实赛事普惠性要求，规避“为赛育人、只为精英育人”的误区。从政策设计逻辑来看，世校赛的核心价值在于以赛事标准倒逼全域教学改革，实现全体学生技能素养的整体提升，而非少数学生的竞技比拼。

但从五所调研院校的实践现状来看，基层院校普遍存在“重奖牌、轻育人”的功利化倾向，形成了与普惠政策相悖的精英化备赛模式，这也是当前政策落地最核心的矛盾之一。调研访谈显示，各院校均采用“层层筛选、集中集训、尖子突围”的参赛模式，优先选拔三年级成绩优异学

生组建集训队，再从十余人集训队伍中筛选优秀选手参赛，低年级学生、普通水平学生基本被排除在赛事备赛体系之外（A3、B3）。为保障赛事获奖率，院校将优质师资、专项经费、高端实训设备等核心资源全部向参赛尖子生倾斜，形成“少数人享用优质竞赛资源、多数人参与常规教学”的资源割裂格局。这种模式直接导致世校赛的普惠育人政策落空，赛事资源无法辐射全体学生，赛事改革的育人价值被窄化为“奖牌政绩”。

深层来看，该矛盾的根源在于政策考核导向与院校发展诉求的错位。顶层政策以“教学改革、全员育人、产业赋能”为考核核心，而基层院校的办学评价、品牌建设、资源争取等仍与赛事获奖数量直接挂钩。在政绩导向与资源竞争的双重驱动下，院校不得不优先保障竞赛成绩，牺牲赛事的普惠育人属性，最终形成“政策倡导普惠、实践深耕精英”的结构性割裂，严重制约世校赛育人价值的全面释放。

4.1.2 统一竞技赛事规则与中高职分层发展的适配矛盾

结合 2025 年世界职业院校技能大赛赛制改革，冠军总决赛（含初评环节）取消中职、高职分组限制，所有晋级队伍同台竞技，并沿用统一的五维评价体系开展评分。该赛制优化进一步提升了赛事观赏性与评价公平性，也是大赛推进内涵升级、完善赛事体系的重要举措（李静波，2026）。从政策初衷来看，统一竞技标准旨在打破学段壁垒，倒逼中高职一体化技能人才培养体系建设，推动职业教育技能标准的规范化、国际化发展。

但在基层实践中，统一竞技规则与中高职分层办学、差异化育人的现实需求形成强烈冲突，导致中职院校陷入天然竞技劣势，赛事分层公平性缺失。从人才培养体系来看，高职学生经过中高职贯通培养，具备更为系统的专业理论知识、扎实的技能储备和综合素养，能够精准理解赛事标准、完成创新性赛事设计与实操任务。而中职学生以基础技能实操学习为主，理论储备薄弱、创新思维不足、赛事经验匮乏，在同台竞技中难以匹配统一的高阶赛事标准。调研中中职院校教师坦言，赛事前期的方案设计、主题策划、创新优化等核心工作均由教师全权完成，学生仅能完成基础实操训练，无法参与赛事核心设计环节，本质上就是中高职学生综合能力差距的直观体现（B2）。

同时，资源配置的层级差距进一步放大了适配矛盾。国家与地方财政对高职院校的经费投入、实训基地建设、师资配置力度显著高于中职院校，中职院校在高端实训设备、专项备赛经费、骨干教师储备等方面存在明显短板。在统一赛事标准下，资源短板与学生能力短板形成叠加效应，导致中职选手大多止步于争夺赛，难以进入排位赛与冠军总决赛，长期的竞技劣势不仅打击中职师生参赛积极性，更弱化了中职院校参与赛事改革、对接国际标准的主动性，阻碍中高职一体化职教竞赛体系的均衡发展。

4.2.3 赛教融合政策导向与成果资源转化的落地矛盾

“以赛促教、以赛促学、以赛促改、以赛促融”是世校赛的核心政策宗旨，2023 年《全国职业院校技能大赛执行规划（2023-2027 年）》明确要求健全赛事成果转化机制，推动赛事标准、赛项资源、评价规则全面融入日常教学与产业实践，深化赛教一体、产教融合与校企合作（[中华人民共和国教育部，2023](#)）。2026 年广东省出台的专项政策，进一步明确竞赛标准转教学标准、竞赛方法转实训方法、竞赛场地转实训场地的三维转化路径（广东省人力资源和社会保障厅，2026），赛事政策重心全面从“办赛”转向“用赛”。赛事成果转化是推进赛教融合、助力职业教育高质量发展的重要举措（[万军，2025](#)）。

但调研发现，五所样本院校普遍存在“重参赛、轻转化、重成绩、轻落地”的问题，赛教融合、产教融合仅停留在政策文本层面，赛事资源与教学、产业资源双向割裂，成果转化效能极低。其一，赛课脱节问题突出，竞赛训练体系与日常教学体系分离。受访学生表示，赛事训练的教学模式、设备配置、训练标准与日常课堂教学差异极大，课堂教学侧重基础知识点普及，赛事训练侧重精细化、高阶化技能打磨，二者资源无法互通共享（A2）。院校未将世校赛最新赛道标准、岗位技能要求、创新评价要点融入课程大纲与实训体系，赛事的产业前沿优势无法反哺教学改革。

其二，校企协同转化机制缺失，产业赋能效应不足。世校赛赛道设置坚持产业需求导向，聚焦行业前沿技术与岗位核心能力（[李静波，2026](#)），但调研显示，企业参与赛事育人、成果转化的深度不足。多数校企合作仅为挂牌共建、浅层交流，企业极少参与赛事备赛指导、课程开发、实训升级，也未将赛事创新成果、优秀技能方案落地应用于生产实践。究其原因，校企双方利益诉求存在天然偏差，院校以长期育人、公益办学为核心目标，企业以短期盈利、效益提升为核心诉求，教育的长期性与企业经营的逐利性形成冲突，导致长效协同转化机制难以建立，最终出现“赛事成果悬浮、教学改革滞后、产业赋能不足”的三重困境。

4.1.4 综合育人评价政策与赛事实操评价的导向矛盾

政策明确推动评价体系从“单一技能评价”向“德技并修、综合素养评价”转型，优化评分结构，增设创新创业、团队协作、应用价值、职业素养等评价维度，旨在全面考核学生的综合职业能力，契合新时代职业教育综合育人的核心要求。政策层面明确强调，大赛坚持立足产业与生产一线实际需求，要求赛项标准、赛事规则紧密衔接产业发展与人才培养要求，推动赛事体系与产业用人标准深度适配。（[中华人民共和国教育部，2023](#)）。

但在赛事实操评价过程中，传统评价惯性难以突破，综合育人的政策导向未能落地，评价体系存在明显的重形式、轻实效、重技能、轻应用的偏差。当前赛事评分体系中，纯技能操作占比高达60%，创新创业、职业素养、应用价值、团队合作各仅占10%（[区绮云，2026](#)），权重分配失衡导致赛事评价依然以技能熟练度、操作规范性、展示美观度为核心标准。尤其在文旅、烹饪、康养等文科类赛项中，赛事过度追求舞台展示效果、形式完整性与视觉美观度，弱化了成果的产

业实用性、场景适配性与落地价值，出现“表演化竞赛”的问题。

同时，评价维度缺乏进一步细化标准，主观性较强，进一步加剧评价导向偏差。政策要求应用价值需对接产业升级、区域发展、国家战略需求，但实操评分中未制定具体的落地考核指标、实践验证依据等，评委难免凭主观认知打分，导致赛事成果与行业实际、岗位需求严重脱节。这种评价模式直接误导院校备赛方向，师生过度聚焦技能打磨和舞台展示，忽视成果创新、实践应用与职业素养培育，违背了世校赛综合育人、赋能产业的核心政策初衷。

4.2 世界职业院校技能大赛政策落地实践优化路径

针对上述四大核心矛盾，立足世校赛国际化、高质量发展的政策定位，结合五所职业院校实地调研的实践痛点，依托现有职教竞赛改革研究成果，从育人体系、赛制规则、成果转化、评价机制四个维度，构建“适配性、普惠性、实效性、创新性”兼具的优化路径，打通“政策—院校—课堂—产业”的落地链条，破解政策与实践的脱节难题，推动世校赛真正成为赋能职业教育改革、培育高端技能人才、对接产业发展的核心载体。

4.2.1 重构普惠育人体系，破解精英化竞赛矛盾

落实国家赛事普惠育人政策要求，破除基层精英化备赛惯性，构建“全员参与、分层培育、资源共享、以点带面”的全域竞赛育人体系，实现赛事资源从“精英专属”向“全员普惠”转型。

首先，健全校级全员竞赛机制，落实湖北省“推荐队+抽测队”创新模式（[湖北省教育厅，2025](#)），取消参赛年级、成绩门槛，面向全体学生开设校级赛事选拔赛，覆盖全年级所有学生，将校级竞赛纳入常规教学体系，作为学生技能实训的必修环节。通过常态化校级竞赛，挖掘学生技能特长与参赛兴趣，规避“少数人参赛、多数人旁观”的问题，真正落实“校校有比赛、人人可参与”的政策要求。

其次，优化赛事资源配置机制，打破优质资源垄断格局。院校可整合实训设备、经费、师资等竞赛资源，搭建全校共享平台，将赛事配套设备、训练课程、名师指导资源向全体学生开放，并融入日常实训教学（[徐圣楠，2026](#)）。改变以往资源集中供给参赛集训队的模式，通过“尖子生传帮带、名师全员授课、赛事课程常态化”的方式，让竞赛标准、前沿技能、优质资源辐射全体学生，实现“参赛选手拔尖、全体学生提质”的双重目标。同时，改革院校赛事考核评价机制，弱化赛事奖牌数量、获奖等级等功利化考核指标，将赛教融合成效、学生全员技能提升率、课程改革成果、育人质量提升等作为核心考核内容，从制度层面破除“重奖牌、轻育人”的政绩导向。

最后，构建分层育人培育体系，适配不同学段、不同能力学生的发展需求。针对低年级学生，开设赛事基础通识课程，普及世校赛赛道标准、岗位技能要求，夯实基础技能；针对中高年级学生，开展专项技能集训与创新实践培育，选拔学生组建竞赛梯队，参与省赛、国赛、世校赛逐级

竞技。通过分层培育、阶梯式成长，既保障赛事竞技水平，又实现全员育人的政策目标，化解顶层普惠政策与基层精英实践的结构矛盾。

4.2.2 优化赛制规则设计，平衡中高职竞技公平

立足中高职分层发展、一体化育人的职教发展规律，优化世校赛赛制规则，兼顾赛事国际化标准统一性与学段发展差异性，破解中职院校天然竞技劣势，实现赛事公平与育人实效的双向统一。

首先，推行“基础分层竞技、高阶同台比拼”的差异化赛制模式，在总决赛争夺赛阶段设置中高职分组竞技赛道，结合中高职人才培养目标制定适配的评分标准与任务要求，中职侧重基础技能实操、岗位标准化操作，高职侧重技能创新、方案设计、综合应用。在排位赛、冠军总决赛阶段取消分组，实行中高职同台竞技，统一高阶创新评价标准，既保障中职学生的基础参赛公平，又保留高阶赛事的竞技性、观赏性与国际化标准属性，实现分层培育与统一引领的有机结合。

其次，加大中职院校赛事资源扶持力度，补齐层级资源短板。国家与地方教育部门需优化赛事经费、实训资源、师资培训的分配机制，加大对中职院校的专项政策倾斜，设立中职赛事专项扶持资金，支持中职院校升级高端实训设备、培育骨干教师团队、对接行业前沿资源。搭建中高职赛事帮扶共建平台，推动优质高职院校与中职院校结对共建，共享赛事训练方案、课程资源、专家师资，助力中职院校提升备赛能力与教学质量。同时，优化中职赛事激励机制，增设中职专项奖项、技能创新奖项，认可中职学生的技能优势与实践成果，提升中职师生参赛积极性，破除中高职赛事发展失衡的困境。

最后，以赛事标准倒逼中高职一体化教学改革。依托世校赛差异化赛制设计，统一中高职技能培养核心标准，梳理各专业学段技能衔接要点，构建循序渐进、层层递进的中高职一体化技能培养体系。中职阶段聚焦基础技能标准化培育，高职阶段聚焦技能创新、综合应用与岗位适配，规避学段技能重复教学、断层脱节问题，从人才培养源头缩小中高职学生综合能力差距，逐步实现中高职赛事竞技与育人质量的均衡发展。

4.2.3 深化产教融合，健全成果双向转化机制

紧扣世校赛“以赛促改、以赛促用”的政策导向，落实广东省赛事成果转化专项政策要求，依托配套转化手册推行竞赛标准转教学标准、竞赛训练方式转实训方式、竞赛场地转实训场地的三项转化举措，推动世赛创新成果赋能产业发展，着力破解赛教脱节、产教割裂的现实难题（广东省人力资源和社会保障厅，2026）。

首先，推进赛课深度融合，实现赛事资源常态化育人。各院校需对照世校赛42个产业导向赛道标准，全面修订人才培养方案、课程标准与实训教学大纲，将赛事涵盖的岗位核心技能、职业素养要求、创新设计理念、行业前沿技术全面融入日常课程体系（李静波，2026）。拆解赛事评

分要点，转化为模块化、项目化的教学内容，构建“基础教学+赛事拓展+创新实践”的三阶课程体系，让日常教学对标赛事标准、贴合岗位需求、对接产业前沿。同时，统一教学与赛事的实训设备、训练标准、考核模式，消除课堂教学与赛事训练的资源壁垒，实现“以赛提质、以教固赛”的良性循环。

其次，深化校企协同合作，构建长效成果转化机制。遵循政府主导、学校主体、行业指导、企业支持、社会参与的赛事办赛机制（中华人民共和国教育部，2023），由地方教育部门、行业协会牵头，搭建世校赛产教融合平台，引导头部企业深度参与赛事育人与成果转化。建立校企双向赋能机制，企业提供前沿技术、高端设备与真实项目，全程参与备赛、课程开发与教学改革；院校依托赛事成果和技能人才，为企业提供技术支持与人才供给，以此化解浅层、短期合作问题，实现互利发展（徐圣楠，2026）。推动赛事创新成果落地企业生产场景，将获奖方案、技能创新技术转化为企业生产工艺、服务标准，实现赛事成果从“赛场展示”向“产业应用”转型。

最后，搭建成果共享转化平台，实现资源全域流通。依托省级职教一体化平台，整合世校赛赛事标准、优秀作品、训练方案、实训资源、创新成果等建立赛事成果资源库，面向全省职业院校、行业企业开放共享。推动校校、校企之间的资源互通、经验互鉴，最大化释放赛事改革价值，让赛事成果全面赋能职业教育教学改革与产业技能升级。

4.2.4 优化综合评价体系，锚定产业育人导向

对标世校赛综合育人、产业赋能的政策定位，重构科学化、精细化、产业化的赛事评价体系，打破重技能、重形式、轻应用、轻创新的评价惯性，实现赛事评价与人才培养、产业需求、国家战略的精准对接。

首先，优化评分权重结构，均衡综合育人维度。调整现有评分体系比例，可将技能水平评分占比从60%下调至40%，同时，同步提升应用价值、创新创业、职业素养、团队协作的评分权重，凸显综合素养与实践应用的核心地位，落实“德技并修”的育人政策要求。通过权重优化，引导师生从单纯打磨技能、追求展示效果，转向注重成果创新、实践落地、职业素养培育。

其次，细化应用价值评价标准，破除主观评分弊端。针对赛事应用价值评价相对模糊、主观性强的问题，结合产业转型升级、区域经济发展、乡村振兴、高质量就业等国家战略需求，制定量化、可落地、可验证的评价指标体系。从实用性、经济性、可持续性、创新性等维度进一步细化评分细则，要求参赛成果需提供企业落地验证报告、场景应用案例、效益提升数据等，以客观实践数据补充评委主观打分，杜绝“表演化竞赛”形式主义问题，确保赛事成果贴合产业实际、具备落地价值。

最后，建立动态评价迭代机制，适配产业发展趋势。依托行业协会、头部企业、职教专家组建评价标准研发团队，结合产业技术迭代、岗位需求更新，每年动态优化世校赛评分标准与评价

维度。推动赛事评价标准与行业职业标准、企业岗位标准、职教教学标准四维融合，让赛事评价始终贴合产业前沿，充分发挥赛事“以赛导教、以赛导产”的风向标作用，真正搭建起职业教育与产业发展之间的精准桥梁。

5. 结论与展望

5.1 研究结论

本研究以世界职业院校技能大赛政策落地与实践矛盾为核心议题，通过梳理2005年至今我国关于职业院校技能大赛的三阶段政策演进历程，结合广西、广东五所中高职职业院校的实地调研与半结构化访谈数据，系统剖析政策顶层设计与基层实践落地之间的多重核心矛盾，形成以下核心研究结论。

其一，我国职业院校技能大赛政策历经初步探索、制度建立、国际化转型与高质量发展三个阶段，已完成从“行政试点”到“制度定型”、从“国内比武”到“国际引领”、从“单一竞技”到“综合育人”的全方位迭代，形成了完善的三级竞赛体系与政策制度框架，政策重心从“规模化办赛”逐步转向“高质量用赛、精准化育人”，为新时代职业教育高质量发展提供了重要的制度支撑。

其二，世校赛政策落地实践中存在四大结构性核心矛盾，严重制约政策价值落地。具体表现为：顶层普惠育人政策与基层精英化备赛的结构性矛盾、国际化统一赛事规则与中高职分层发展的适配矛盾、赛教融合政策导向与成果资源转化不足的落地矛盾、综合育人评价政策与赛事实操评价的导向矛盾。四大矛盾相互交织、层层递进，最终导致赛事育人普惠性不足、赛教融合深度不够、成果产业赋能薄弱、赛事公平性缺失等现实困境，是当前世校赛高质量发展的核心阻碍。

其三，破解世校赛政策落地与实践的矛盾，需立足“政策适配、育人为本、产业赋能、公平高效”的核心原则，从育人体系、赛制规则、成果转化、评价机制四维协同优化。通过重构普惠育人体系、差异化优化赛制规则、健全产赛教融合转化机制、完善产业化综合评价体系，能够有效打通政策落地堵点、破解实践痛点，推动世校赛从“赛事竞技工具”真正转型为职业教育改革、高技能人才培养、产业升级赋能的核心载体，实现政策设计与实践成效的深度统一。

5.2 研究不足与展望

本研究基于五所两广地区职业院校开展实地调研，通过微观实证分析揭示了世校赛政策落地的现实矛盾与优化路径，具备一定的问题导向与实践参考价值。但研究仍存在一定局限性：一是调研样本范围有限，仅聚焦两广地区中高职院校，未覆盖东部、中西部不同类型、不同层级的职业院校，样本代表性有待进一步提升；二是研究侧重静态矛盾剖析与路径构建，对世校赛政策落

地的动态演化机制、不同区域政策执行的差异化逻辑未展开深入探讨；三是所提出的优化路径尚未经过大规模实践验证，落地适配性仍需进一步完善。

未来研究可进一步扩大调研样本范围，覆盖全国不同区域、不同办学类型的职业院校，开展多区域、多类型的对比研究，深入剖析不同区域、不同层级院校的政策落地差异与深层成因，提炼更具普适性的实施路径。同时，可开展长期追踪研究，动态监测世校赛制度改革、成果转化、评价优化的实践成效，结合产业技术迭代、职教改革趋势，持续完善赛事育人体系与政策落地机制。此外，可聚焦世校赛国际化发展趋势，深入探索中外职业技能赛事融合发展、国际赛事标准本土化落地的实践路径，助力我国职业教育赛事体系走向世界、引领全球职业技能教育发展，为构建中国特色、世界水平的现代职业教育体系提供更强有力的支撑。

参考文献

- 安徽省教育厅. (2025). 安徽省教育厅关于进一步加强职业院校大赛管理工作的通知 (皖教秘职成〔2025〕70号).
- 广东省人力资源和社会保障厅. (2026). 关于推动世赛成果转化加强高技能人才培养的指导意见.
- 湖北省教育厅. (2025). 2026年湖北省职业院校技能大赛实施方案.
- 湖北省教育厅. (2025). 省教育厅关于印发《2026年湖北省职业院校技能大赛实施方案》的通知 (鄂教职成函〔2025〕6号).
- 教育部等35部门. (2021). 全国职业院校技能大赛章程 (修订版).
- 教育部等37部门. (2018). 全国职业院校技能大赛章程 (修订版).
- 李杰, 郭达, 张瑞, & 陈晓曦. (2018). 以世界技能大赛推动职业院校专业教学改革的路径探析——基于世界技能大赛技术文件的分析. *职业技术教育*, 39(28), 22-27.
- 李静波, 申培轩, & 耿洁. (2025). 创新赛制, 全面升级, 综合育人: 打造具有中国特色、世界水平的职业院校技能大赛. *中国职业技术教育*, (4), 5-14+61.
- 李静波. (2026). 技能竞赛助力职业教育高质量发展——2025年世界职业院校技能大赛综述. *中国职业技术教育*, (6), 5-9, 16.
- 刘东菊. (2012). 世界技能大赛对我国职业院校人才培养启示. *中国职业技术教育*, (36), 48-52.
- 刘东菊, & 王晓辉. (2013). 世界技能大赛: 标准的变化及对我国的影响. *职业技术教育*, 34(21), 34-38.
- 刘东菊. (2016). 参与世界技能大赛, 提升技能人才培训质量. *中国职业技术教育*, (5), 59-62.
- 区绮云. (2026). 基于评分标准解析的世界职业院校技能大赛争夺赛制胜策略研究. *卫生职业教育*, 44(8), 157-160.

- 深圳市教育局. (2008). 关于参加2008年全国职业院校技能大赛的通知 (深教〔2008〕86号).
- 天津市人民政府, & 中华人民共和国教育部. (2006). 关于印发国家职业教育改革试验区建设实施方案的通知 (津政发〔2006〕24号).
- 万军. (2025). 赛教融合视域下世界技能大赛项目成果转化路径研究——以职业院校专业建设和人才培养为视角. *中国教育技术装备*, (1), 136-139.
- 吴少森, & 徐燕铭. (2026). 世界职业院校技能大赛与职业标准衔接的协同机制研究——基于产教融合视角. *现代职业教育*, (8), 1-4.
- 徐圣楠. (2026). 高职以赛促教推动人人成才与拔尖创新的竞赛实践. *湖北开放职业学院学报*, 39(7), 86-89.
- 徐梓榆, & 吴书龙. (2025). 职业院校技能大赛反哺教学机制的构建与实践. *汽车维护与修理*, (10), 110-112.
- 曾天山, 房风文, 陈宏辉, & 刘晓辉. (2024). 以高水平赛事推动职业教育高质量发展——基于2022年全国职业院校技能大赛的分析. *中国职业技术教育*, (8), 18-28.
- 张宏亮. (2011). 职业院校技能大赛热背后的冷思考. *武汉交通职业学院学报*, 13(2), 56-59.
- 张俊勇, & 张玉梅. (2018). 世界技能大赛与我国职业教育发展. *职业技术教育*, 39(27), 47-54.
- 中华人民共和国教育部. (2007). 国家职教改革试验区第二次领导小组工作会议召开.
- 中华人民共和国教育部. (2008). 教育部关于举办2008年全国职业院校技能大赛的通知 (教职成函〔2008〕3号).
- 中华人民共和国教育部. (2009). 教育部2009年第10次新闻发布会介绍2009年全国职业院校技能大赛情况.
- 中华人民共和国教育部. (2011). 2011年全国职业院校技能大赛新闻发布会.
- 中华人民共和国教育部. (2012). 2012年全国职业院校技能大赛新闻发布会.
- 中华人民共和国教育部. (2013). 教育部关于印发《全国职业院校技能大赛三年规划(2013-2015年)》的通知 (教职成函〔2013〕1号).
- 中华人民共和国教育部. (2020). 教育部关于举办2020年全国职业院校技能大赛改革试点赛的通知 (教职成函〔2020〕5号).
- 中华人民共和国教育部. (2023). 全国职业院校技能大赛执行规划 (2023—2027年).
- 中华人民共和国教育部. (2024). 2024年世界职业院校技能大赛实施方案.
- 中华人民共和国教育部. (2024). 教育部关于印发《2024年世界职业院校技能大赛实施方案》的通知 (教职成函〔2024〕5号).
- 周济. (2008, 6月29日). 教育部部长周济在开幕式上讲话. *中国教育报*.

周衍安. (2021). 世界技能大赛对职业教育人才评价的启示——专访北京师范大学赵志群教授.
职教论坛, 37(7), 45-52.

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“岗课赛证”综合育人模式的发展历程与实践路径 ——基于广州、柳州职业院校的案例研究

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“岗课赛证”综合育人模式的发展历程与实践路径 ——基于广州、柳州职业院校的案例研究

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摘要

“岗课赛证”综合育人是职业教育研究的重要课题之一，其核心在于通过岗位需求、课程体系、技能竞赛与职业资格证书的深度融通，破解技术技能人才培养中“学用脱节”的难题，然而既有研究多停留于宏观理念阐释或单一案例描述，本研究在系统梳理“岗课赛证”综合育人发展历程与内涵的基础上，选取广州市旅游商务职业学校、柳州市第一职业技术学校、柳州市第二职业技术学校、柳州城市职业学院四所实践特色较为鲜明的职业院校作为样本，开展实地考察与比较分析。研究发现，四所院校分别形成了以行业认证为驱动的“课证共生”模式、以产业需求为起点的“以岗定教”模式、以技能竞赛为载体的“赛教一体”模式、以系统化对接为核心的“标准转化”模式，四种模式的形成受学校区位条件、专业属性、资源积累及校企合作传统等因素影响，但其“课”的中心地位在融合过程中都得以强化。研究同时探讨了竞赛资源普惠化、教师课程模块化设计能力不足、服务类专业融合路径的方法论支撑薄弱等困境，并据此进行反思。

关键词：岗课赛证；综合育人；职业教育；人才培养模式；政策演进。

1. 引言

职业教育是国民教育体系和人力资源开发的重要组成部分，承担着培养多样化人才、传承技术技能、促进就业创业的重要职责。随着我国经济进入高质量发展阶段，产业转型升级和技术迭代加速，劳动力市场对技术技能人才的需求结构发生了变化，据人力资源社会保障部数据显示，目前我国技能劳动者总量超过2.2亿人，其中高技能人才超过7200万人，占技能人才比例的30%^①

^① 中华人民共和国中央人民政府的人力资源和社会保障部

左右，人才供给侧与产业需求侧的结构性矛盾依然突出，高技能人才总量短缺、结构不合理的问题尚未解决。在此背景下，职业教育被赋予了培养能工巧匠、大国工匠的时代使命，其自身也正从追求规模扩张转向内涵式发展，亟需破解“学用脱节”的难题。

2021年全国职业教育大会首次明确提出“岗课赛证”综合育人，随后中共中央办公厅、国务院办公厅的《关于推动现代职业教育高质量发展的意见》进一步要求“完善‘岗课赛证’综合育人机制”，标志着这一模式从学校探索提升为系统构建的制度性安排。“岗课赛证”综合育人旨在通过岗位需求引领、课程体系承载、技能竞赛牵引、职业资格证书检验四者的深度融通，重塑职业教育的人才培养逻辑。

学界围绕“岗课赛证”综合育人已展开广泛讨论，曾天山（2021）较早对“岗课赛证”综合育人的理论框架进行了系统阐述，将其定位为职业教育类型特征的重要体现，并指出岗课融通、赛教融合、课证融通、研教结合、赛证课相通等人才培养方案开发路径；有学者基于此将岗课赛证拓展为岗课赛证创研六维融合模式，尝试将创新创业、科教融汇也纳入其中（焦喆，2023；刘兴，等，2024；叶杨翔，2024）；也有学者从跨界整合的视角指出，“岗课赛证”联结了产业界、教育界、竞赛界、证书界四大系统，在人才需求侧和人才培养供给侧之间实现了多向度对接，形成标准、内容、过程、评价四个维度的有机融合（史晓慧，杨盏，2023；张慧青，等，2021）。但从整体上看，现有成果仍以单一模式的个案总结或总结层面的理念阐释为主，对不同类型、不同专业背景的职业院校如何因地制宜地实施这一模式，其差异化路径的内在逻辑尚待厘清，不同路径所依托的条件和可能面临的局限也缺乏系统审视。

基于上述背景，本研究尝试回答在“岗课赛证”综合育人的政策背景下，不同类型的职业院校基于各自的专业特性与资源条件，演化出了哪些差异化的实践模式？这些实践又面临着哪些困境？为回答上述问题，本研究采用多案例比较分析法和深度访谈法，遵循信息性与差异性原则，选择了广州市旅游商务职业学校（以下简称“广旅商”）、柳州市第一职业技术学校（以下简称“柳一职”）、柳州市第二职业技术学校（以下简称“柳二职”）、柳州城市职业学院（以下简称“柳州城职院”）四所在“岗课赛证”育人上特色鲜明、成效显著的学校作为研究样本，对其进行实地调研，深度观摩了茶艺、咖啡、烹饪、巴哈赛车、康养等数十个实训场所，体验《品鉴白茶》等课程教学；收集并分析了学校的人才培养方案、课程标准转化图示、竞赛成绩、校企协议等文本资料；并与部分教师、管理人员及学生进行了半结构化的深度访谈，了解实践中的具体做法、挑战与思考。

2. “岗课赛证”综合育人的演进与内涵

2.1 政策演进

“岗课赛证”综合育人演进的发展历程经历了从各要素的分散探索走向系统整合，20世纪90年代至21世纪初以“证”的引入为核心，解决学历与资格如何衔接的问题；21世纪初至2010年代以“岗”的导向确立为核心，解决培养的人与岗位需求如何对接的问题；2008年至2018年以“赛”的建制为核心，解决竞赛如何反哺教学的问题；2019年至今则以“岗课赛证”四要素的系统整合为核心，形成了综合育人体系。

时间	政策名称	印发单位	主要内容
1991 年	《关于大力发展职业技术教育的决定》	国务院	逐步实行“双证书”制度
1993 年	《中国教育改革和发展纲要》	中共中央、国务院	学历文凭和职业资格证书并重的制度
1993 年	《关于建立社会主义市场经济体制若干问题的决定》	中共中央	学历文凭和职业资格两种证书制度
1994 年	《关于〈中国教育改革和发展纲要〉的实施意见》	国务院	再次明确在全社会实行学历文凭和职业资格证书并重的制度
1996 年	《中华人民共和国职业教育法》	全国人大常委会	从法律层面确认“双证书”制度
2002 年	《关于大力推进职业教育改革与发展的决定》	国务院	加强职业指导和就业服务，服务经济社会需求
2005 年	《关于大力发展职业教育的决定》	国务院	加快生产、服务一线急需的技能型人才的培养
2008 年	全国职业院校技能大赛创办	教育部等 11 部门	构建起以校赛为基础、省赛为支撑、国赛为龙头的赛事体系
2014 年	《关于加快发展现代职业教育的决定》	国务院	提出“五个对接”
2018 年	《全国职业院校技能大赛章程》	教育部等 37 部门	将大赛定位为公益性、全国性职业院校学生综合技能竞赛活动，要求坚持以赛促教、以赛促学、以赛促改
2018 年	《职业学校校企合作促进办法》	教育部等 6 部门	推动产教融合、校企合作、工学结合、知行合一的育人机制
2019 年	《国家职业教育改革实施方案》（“职教 20 条”）	国务院	明确职业教育为“类型教育”；提出启动“1+X”证书制度试点；确立“三个对接”
2019 年	《关于在院校实施“学历证书+若干职业技能等级证书”制度试点方案》	教育部等 4 部门	正式部署启动“学历证书+若干职业技能等级证书”（简称 1+X 证书）制度试点工作
2020 年	《职业教育提质培优行动计划（2020—2023 年）》	教育部等 9 部门	提出“提质培优、增值赋能、以质图强”，加快推进职业教育现代化
2021 年	全国职业教育大会	国务院	首次提出“岗课赛证”综合育人
2021 年	《关于学习宣传贯彻习近平总书记重要指示和全国职业教育大会精神的通知》	教育部	要求探索“岗课赛证”相互融合，引导职业学校充分利用行业龙头企业在专业人才培养和评价方面的成熟标准
2021 年	《关于推动现代职业教育高质量发展的意见》	中共中央、国务院	要求完善“岗课赛证”综合育人机制
2021 年	《全国职业院校技能大赛章程》（修订版）	教育部等 35 部门	将参赛对象从学生拓展为师生，明确大赛建立学校、省级、国家三级竞赛体系
2022 年	教育部工作要点	教育部	推进“岗课赛证”综合育人模式
2022 年	《中华人民共和国职业教育法》（新修订）	全国人大常委会	进一步为“岗课赛证”综合育人提供政策依据
2026 年	《关于深化职业教育教学关键要素改革的意见》	教育部	根据产业环节、生产流程、职业逻辑，全要素、全过程、系统性推进改革

表1 访谈者信息

2.1.1 证书制度：“课证融通”的奠基

“证”这一要素可追溯至1991年，国务院《关于大力发展职业技术教育的决定》提出对进行技术等级考核的工种逐步实行“双证书”（即毕业证书和技术等级证书或岗位合格证书）制度，要求将技术等级证书或岗位合格证书作为录用和确定待遇的依据^①，将外部职业资格标准引入学校教育体系（高林，等，2006；郭文富，马树超，2019），开启了学历教育与职业资格培训相结合的早期实践（王丽新，李玉龙，2021）。1993年，中共中央、国务院的《中国教育改革和发展纲要》提出“在全社会实行学历文凭和职业资格证书并重的制度”^②。同年11月，党的十四届三中全会审核通过《中共中央关于建立社会主义市场经济体制若干问题的决定》正式提出“实行学历文凭和职业资格两种证书制度”^③。1994年，国务院《关于〈中国教育改革和发展纲要〉的实施意见》再次明确这一制度方向^④。1996年《中华人民共和国职业教育法》第八条规定，实施职业教育应当“同国家制定的职业分类和职业等级标准相适应，实行学历证书、培训证书和职业资格证书制度”，从法律层面确认了“双证书”制度的合法性^⑤。

进入21世纪，证书制度在政策层面持续深化，2005年，国务院《关于大力发展职业教育的决定》提出“到2010年，省级以上重点中等职业学校和有条件的高等职业院校都要建立职业技能鉴定机构”^⑥。2014年，国务院《关于加快发展现代职业教育的决定》将“毕业证书与职业资格证书对接”纳入“五个对接”的政策框架^⑦。2019年，国务院《国家职业教育改革实施方案》（既“职教20条”）首次提出启动“1+X”证书制度试点^⑧。随后教育部等4部门联合印发《关于在院校实施“学历证书+若干职业技能等级证书”制度试点方案》，正式部署“学历证书+若干职业技能等级证书”（简称1+X证书）制度试点工作^⑨。2022年修订的《中华人民共和国职业教育法》第十一条将证书制度拓展为“学历证书及其他学业证书、培训证书、职业资格证书和职业技能等级证书制度”^⑩。

① 国务院《关于大力发展职业技术教育的决定》. <https://www.cernet.edu.cn/zhong guo jiao yu/zheng ce gs gui/z heng ce wen jian/zhi ye/zong he/200603/t20060323 110233.shtml>.

② 中共中央、国务院《中国教育改革和发展纲要》. <https://www.cernet.edu.cn/zhong guo jiao yu/zheng ce gs gui/zheng ce wen jian/zong he/201007/t20100719 497964.shtml>.

③ 《中共中央关于建立社会主义市场经济体制若干问题的决定》. <https://www.worker.cn/c/2021-12-08/6847912.shtml>.

④ 国务院《关于〈中国教育改革和发展纲要〉实施意见》. <https://www.guizhou.gov.cn/zwgk/zfgb/gzszfzg/199407/t19 940703 70517889.html>.

⑤ 《中华人民共和国职业教育法》. <http://lawdb.cncourt.org/show.php?fid=25356>

⑥ 国务院《关于大力发展职业教育的决定》. <https://www.gov.cn/zwgk/2005-11/09/content 94296.htm>

⑦ 国务院《关于加快发展现代职业教育的决定》. <https://www.gov.cn/zhengce/content/2014-06/22/content 8901.htm>

⑧ 国务院《关于印发国家职业教育改革实施方案的通知》. <https://www.gov.cn/zhengce/content/2019-02/13/content 5365341.htm>

⑨ 教育部等4部门《关于在院校实施“学历证书+若干职业技能等级证书”制度试点方案》的通知. http://www.moe.gov.cn/srcsite/A07/moe_953/201904/t20190415_378129.html

⑩ 《中华人民共和国职业教育法》. http://www.moe.gov.cn/jyb_sjzl/sjzl_zcfg/zcfg_jvfl/202204/t20220421_620064.html

2.1.2 岗位标准：“岗课融通”的确定

相较于证书制度拥有较为独立的政策脉络，“岗”的要素更多体现为一种贯穿职业教育改革始终的指导原则，它更多融入于产教融合、校企合作、专业建设等各项政策之中。2002年，《关于大力推进职业教育改革与发展的决定》提出职业学校和职业培训机构要“进一步适应经济社会发展以及劳动力市场需求”^①。2005年，国务院《关于大力发展职业教育的决定》提出实施“国家技能型人才培养培训工程”，要求“加快生产、服务一线急需的技能型人才的培养”，并明确提出“工学结合、校企合作的培养模式”，推动职业院校与企业紧密联系，使人才培养更加贴近企业生产实际和岗位需要^②。2014年，国务院《关于加快发展现代职业教育的决定》将其概括为“五个对接”，既专业设置与产业需求对接、课程内容与职业标准对接、教学过程与生产过程对接、毕业证书与职业资格证书对接、职业教育与终身学习对接，提出“产教融合、特色办学，推动教育教学改革与产业转型升级衔接配套”^③。2018年，教育部等6部门印发《职业学校校企合作促进办法》，要求“推动形成产教融合、校企合作、工学结合、知行合一的共同育人机制”^④，从制度层面强化了岗位需求的导向作用。2019年，《国家职业教育改革实施方案》（既“职教20条”）将“三个对接”，既专业设置与产业需求对接、课程内容与职业标准对接、教学过程与生产过程对接确立为完善职业院校设置标准的刚性要求^⑤。2020年，教育部等9部门印发《职业教育提质培优行动计划（2020—2023年）》是“五个对接”和“三个对接”之后的延伸，要求“深化产教融合、校企合作，强化工学结合、知行合一，健全德技并修育人机制”^⑥，是“岗”融入人才培养的制度保障。

2.1.3 技能大赛：“课赛融通”的建构

“赛”的要素的制度起点是全国职业院校技能大赛的创办，2008年教育部联合11家单位共同主办首届全国职业院校技能大赛，并将其列入年度工作要点，标志着技能竞赛正式纳入国家职业教育制度框架，自此大赛构建起以校赛为基础、省赛为支撑、国赛为龙头、行业赛为补充的完整赛事体系（曾天山，陈斌，2021）。2018年教育部等37部门联合发布《全国职业院校技能大赛章程》^⑦，将大赛定位为“教育部发起并牵头，联合国务院有关部门以及有关行业、人民团体、学

① 国务院《关于大力推进职业教育改革与发展的决定》. https://www.gov.cn/gongbao/content/2002/content_61755.htm

② 国务院《关于大力发展职业教育的决定》. https://www.gov.cn/zwqk/2005-11/09/content_94296.htm

③ 国务院《关于加快发展现代职业教育的决定》. https://www.gov.cn/zhengce/content/2014-06/22/content_8901.htm

④ 教育部等6部门《职业学校校企合作促进办法》. http://www.moe.gov.cn/srcsite/A07/s7055/201802/t20180214_327467.html

⑤ 国务院《关于印发国家职业教育改革实施方案的通知》. https://www.gov.cn/zhengce/content/2019-02/13/content_5365341.htm

⑥ 教育部等9部门《职业教育提质培优行动计划（2020—2023年）》. https://www.gov.cn/zhengce/zhengceku/2020-09/29/content_5548106.htm

⑦ 教育部等37部门《全国职业院校技能大赛章程》. http://www.moe.gov.cn/srcsite/A07/zcs_yxds/s3069/201803/t20180329_331775.html

术团体和地方共同举办的一项公益性、全国性职业院校学生综合技能竞赛活动”，明确要求“坚持以赛促教、以赛促学、以赛促改，内容设计围绕专业教学标准和真实工作的过程、任务与要求”，从制度层面为“赛”与“课”深度融合提供了方向指引。2021年，教育部等35部门修订印发《全国职业院校技能大赛章程》^①，将参赛对象拓展为“职业院校师生综合技能竞赛活动”，并明确“大赛建立学校、省级、国家三级竞赛体系”，至此全国职业院校技能大赛已形成涵盖中职、高职和师生各群体的完整竞赛体系（曾天山，等，2021）。

2.1.4 岗课赛证：综合育人模式的发展

故“岗课赛证”综合育人的正式提出，建立在前期产教融合、校企合作等政策铺垫的基础之上，基于此2021年4月，全国职业教育大会首次提出“岗课赛证”综合育人^②，随后教育部发布的《关于学习宣传贯彻习近平总书记重要指示和全国职业教育大会精神的通知》提出探索“岗课赛证”相互融合，引导职业学校充分利用行业龙头企业在专业人才培养和评价方面的成熟标准，结合自身实际，充实改造提升相应课程和专业^③。同年10月，中共中央、国务院《关于推动现代职业教育高质量发展的意见》要求“完善‘岗课赛证’综合育人机制，按照生产实际和岗位需求，开发模块化、系统化实训课程体系，提升学生实践能力”^④，这标志着“岗课赛证”综合育人从学校层面的局部探索上升为国家层面的制度性安排。

2022年2月，教育部在工作要点中再次强调“推进岗课赛证综合育人模式”，并将其作为增强职业教育适应性的重要路径，通过课程改革、竞赛参与和证书认证，实现人才培养与产业需求的对接^⑤。同年修订的《中华人民共和国职业教育法》^⑥在法律层面为这一育人模式提供了依据。自此各地职业院校结合自身专业特色与区域产业需求，开始逐步探索差异化的实践路径。而2026年，教育部在《关于深化职业教育教学关键要素改革的意见》中提出“推动职业教育人才培养由单一知识传授向综合能力提升转变”，强调“根据产业环节、生产流程、职业逻辑，全要素、全过程、系统性推进改革”，要求“按照行业标准、企业标准、岗位标准确定教育教学标准”^⑦，将“岗课赛证”综合育人从方向性指引推向系统性实施阶段。

① 《全国职业院校技能大赛章程》. http://www.moe.gov.cn/srcsite/A07/zcs_vxds/s3069/202111/t20211119_581112.html.

② 《习近平对职业教育工作作出重要指示强调加快构建现代职业教育体系》. http://www.moe.gov.cn/jyb_xwfb/s6052/moe_838/202104/t20210413_526123.html.

③ 教育部《关于学习宣传贯彻习近平总书记重要指示和全国职业教育大会精神的通知》. http://www.moe.gov.cn/srcsite/A07/s7055/202104/t20210429_529235.html.

④ 中共中央、国务院《关于推动现代职业教育高质量发展的意见》. https://www.gov.cn/zhengce/2021-10/12/content_5642120.htm.

⑤ 教育部《教育部2022年工作要点》. http://www.moe.gov.cn/jyb_sjzl/moe_164/202202/t20220208_597666.html.

⑥ 《中华人民共和国职业教育法》. http://www.moe.gov.cn/jyb_sjzl/sjzl_zcfg/zcfg_jyf1/202204/t20220421_620064.html.

⑦ 教育部《关于深化职业教育教学关键要素改革的意见》. http://www.moe.gov.cn/srcsite/A07/zcs_zhgg/202602/t20260212_1428773.html.

2.2 内涵界定

“岗课赛证”综合育人模式早期经历了“岗课证赛”“课岗证赛”“课岗赛证”等发展阶段，其中“岗课证赛”将“赛”的功能更多定位为检验性和展示性的辅助手段，“课岗证赛”和“课岗赛证”则体现了课程本位的特点（王婧，徐涵，2023）。也有研究将“岗课赛证”综合育人模式的发展划分为“双证融通”时期、多元融合时期和综合育人创新时期等不同阶段（杨淑锬，黄雅帆，2023）。直到2021年全国职业教育大会后表述逐渐统一。

教育部职成司司长陈子季指出，“岗”是工作岗位，“课”是课程体系，“赛”是职业技能竞赛，“证”是职业技能等级证书（秦国锋，等，2022）。曾天山（2022）将其界定为“在在职普融通、知行合一、工学结合基础上形成的个性化技术技能人才培养模式，是强化职业教育类型特色的显著标志”。也有学者认为“岗课赛证”融通教学模式是通过对接企业岗位、优化课程、引入竞赛标准和推行证书标准，解决教学与实践脱节、学生职业能力不足等问题（曹元军，等，2022；罗洪艳，闫运和，2023）。

而关于四要素之间的逻辑关系，学界也逐步形成了较为一致的理解，“岗”是逻辑起点，为人才培养提供依据，回答“培养什么人”的问题，是职业院校进行专业设置与人才培养方案制定的首要依据。“课”则处于整个体系的核心位置，是将岗位要求系统性转化为学生可迁移的职业核心素养的完整过程。“赛”在此被定位为课程教学的高端展示与示范标杆，以还原真实工作情境、考核完整任务流程、检验综合能力与应变水平为特征，其价值在于通过竞赛标准向教学标准的牵引，带动教学质量提升。“证”则是对课程学习成果的社会化检验与外部权威认证，它不仅为学生提供了就业市场的通行证，同时证书所代表的行业标准能否有效融入课程，影响了“岗课赛证”闭环的完整性（秦国锋，等，2023；王欣，金红梅，2022）。

综合上述讨论，“岗课赛证”综合育人的核心要义在于构建“以岗促教、以课促改、以赛促学、以证促训”的良性循环机制（马玉霞，等，2021；燕珊珊，2022）。实现这一机制的关键是建立起有效的内在贯通的融合关系（程智宾，等，2021），首先是“岗课”对接，通过深度的行业企业调研，将岗位典型工作任务进行教学化处理，转化为模块化、项目化的学习领域课程，实现课程内容与职业标准的精准匹配；其次是“课赛”互促，即不是将竞赛作为少数精英的封闭训练，而是将竞赛标准、竞赛内容与评价方式进行分解、重构，使之融入日常教学，同时将优秀的课程项目成果推向更高层次的竞赛平台检验；最后是“课证”融通，将职业技能等级证书所要求的知识、技能与素养，系统性地整合进课程标准和教学内容之中，实现课程学习过程即证书备考过程，避免课程与考证割裂。从而实现以“岗课融通”“课赛融通”“课证融通”维度促进“岗课赛证”综合育人，提升技术技能人才培养质量（卢宇，等，2024）。

3. “岗课赛证”综合育人的多元实施路径

通过对多所样本院校的深度考察，发现尽管各校均认同“岗课赛证”综合育人的理念，但因专业类型、资源禀赋、历史积淀和校企合作深度的不同，演化出了差异化的实施路径。

3.1 广州市旅游商务职业学校：以行业认证为驱动的“课证共生”模式

广州市旅游商务职业学校茶艺与茶营销专业的实践探索，呈现了以行业权威认证为引领的“课证共生”模式，该模式将具有公信力的行业认证标准作为课程体系构建、教学内容选择与教学质量评估的重要参照之一，从而在课程内容与证书标准之间建立协同更新关系。

该校最具代表性的举措是主动对接全球检测认证机构德国TÜV莱茵公司，2025年3月，全球首个中华茶艺师（Chinese Tea Sommelier）资格认证考试培训中心在广州茶博馆国际茶学院正式授牌，该认证由广旅商与德国莱茵TÜV大中华区联合推出，双方共同开发了符合ISO/IEC 17024国际标准的认证体系，覆盖茶文化理论、传统技艺与现代创新，考取者可获得全球认可的证书。广旅商作为TÜV莱茵旗下PersCert TÜV的授权培训提供商，为学员提供为期5天共35小时的系统培训课程，且在课程实施层面，该校将TÜV莱茵国际认证标准和国内职业资格所要求的知识、技能与职业素养进行系统分解后融入课程体系，利用茶艺馆、品茶室等校内实训中心，实现教学与培训、教学与实训的一体化，以满足学生综合职业能力培养的需求，从而使课程学习与证书获取之间形成相互促进的关系，课程内容对标证书标准，证书标准又反向推动课程内容更新。

在“课证共生”的主框架下，该校巧妙地将“赛”与“证”也进行了有机整合和延伸，将全国职业院校技能大赛中职组茶艺赛项标准作为教学的参照依据，由于茶艺师岗位能力评价带有较强的主观性和文化意蕴，国赛标准的权威性弥补了依靠企业岗位描述可能产生的模糊性。在旁听《品鉴白茶》课堂中，学生被要求以“茶师”和“评委”的双重身份参与其中，作为茶师需要完成冲泡与品鉴引导，作为评委则需依据国赛“说茶”环节的评分细则对同伴的表现进行评判。这种教学设计使得原本只属于少数参赛选手的高端竞赛标准，通过角色扮演和同伴互评的方式，转化为每一位学生都能接触、实践和内化的日常学习资源。同时学校在课前准备与课程实施环节中还尝试引入人工智能工具辅助教学，如学生借助AI辅助撰写品鉴引导词和识别茶样，教师则借助AI进行学情数据分析。

从整体成效来看，该校茶艺专业教师团队中拥有国家级高级茶艺师技师、国家级高级评茶技师等高水平“双师型”教师，其人才培养模式探索获得了国家级教学成果奖二等奖。同时学校与广州市大茶园茶业有限公司签订了管理培训生校企合作协议，构建起从岗位能力分析、课程内容重构、竞赛标准融合到国际国内技能证书衔接的育人链条。

3.2 柳州市第一职业技术学校：以产业需求为起点的“以岗定教”模式

柳州市第一职业技术学校的实践则诠释了“以岗定教”模式，通过将区域龙头企业的真实岗位需求、技术规范和生产流程，作为专业设置、课程开发、教学实施与质量评价的重要依据，使人才培养过程与产业链、技术链的动态变化保持较为密切的同步。

该校地处广西工业重镇柳州，作为工信部产教融合试点单位、广西职业教育产教融合标杆院校，学校以“3优4特”专业集群对接新能源汽车、高端装备制造、数字技术等地方支柱产业，其中智能制造与现代服务类专业群与上汽通用五菱、宁德时代等头部企业建立了深度的战略合作关系。并将合作延伸至课程体系层面，形成了“专业群随产业链升级、课程随技术迭代”的动态调整机制，企业的智能产线升级、新技术应用等真实需求被转化为课程内容或学生的项目式学习任务。

因此在课程开发层面，该校新能源汽车运用与维修专业以“四化引领，岗课赛证，产教融合，三阶递进”为人才培养模式，构建了对接汽车新业态的课程体系，岗位工作任务分析是课程开发的起点，企业技术标准被纳入课程标准，课程内容紧跟企业最新的电池管理、电机控制技术进行更新，并依托柳州新能源汽车产教融合平台，实施中高企三元联合育人，使学生在中职阶段能力呈三段递进逐步提升。学校还与上汽通用五菱、一汽解放、东风柳汽等8家龙头企业合作创建“菱大师班”“五菱柳机现场工程师班”等产教融合型班级，实现校企共定培养方案、共设课程、共评质量。

而“赛”与“证”在此模式中被视为检验“课”与“岗”对接效果的重要工具，因为其参与的技能大赛项目多以真实产业场景为载体，要求解决企业实际遇到的问题，竞赛成绩在一定程度上反映了人才培养对产业需求的满足度，如该校连续多年开展汽车专业领域“1+X”考评工作，将“1+X”等级证书标准融入课程标准和教学内容，而学生证书考核通过率也保持在93%以上，年均输送近800名高适配技能人才，对口就业率达95%以上。2025年，该校交通运输系申报的《产业转型升级+人工智能时代背景下“新质”汽车人才培养探索与实践》入选工信部产教融合优秀案例，同时该校工业机器人技术应用专业教师教学创新团队是广西唯一入选高端装备领域的中职学校团队。同年，该校在世界职业院校技能大赛总决赛中，参赛团队在人工智能、餐饮、机电设备安装与运维三个赛道均获银奖，实现100%获奖率；在广西职业院校技能大赛中获15项金奖、14项银奖、6项铜奖，获奖率达95%。

3.3 柳州市第二职业技术学校：以技能竞赛为载体的“赛教一体”模式

柳州市第二职业技术学校的巴哈赛车项目作为“赛教一体”模式的典范，其独特价值在于将高标准、长周期、综合性的竞赛项目，系统性地嵌入专业教学体系，使之成为跨专业、全流程的

教学载体。

巴哈大赛（Baja SAE China）是中国汽车工程学会于2015年发起主办，由高等院校、职业院校汽车及相关专业在校生组队参加的越野汽车设计、制造和检测比赛，要求参赛车队自主设计、制造一辆单座、发动机驱动的小型越野赛车，并在规定的各项测试中完成比拼。在柳二职，巴哈赛车队组建于2015年12月，在该校巴哈大赛并非仅作为第二课堂的兴趣活动或针对少数学生的存在，而是被纳入了交通运输系相关专业的教学体系，从赛车的概念设计、仿真分析、零部件制造、整车装配与调校测试，到成本控制方案的编制、市场营销策略的制定，整个参赛的全过程被系统地分解为不同学期、不同课程的模块化教学项目，学生需要综合运用汽车结构设计、机械加工、团队协作、项目管理等多学科知识与技能。这种“在做赛中学、在学中做赛”的安排，在一定程度上打破了理论与实践、学习与应用之间的边界，尤其是巴哈赛车项目集技术性、趣味性于一身，适合职业院校学生参与，是以培养高素质技术技能人才为核心的竞技活动。

该模式对“赛”的功能进行了重新定位，大赛成为了驱动课程内容整合、教学方法革新、学生综合能力培养的核心要素之一，竞赛的高标准直接转化为课程教学的毕业设计要求、竞赛过程中遇到的问题反过来成为课堂教学的真实案例等，所以从实践成效来看，该校巴哈赛车队自参赛以来，已累计获得团体总成绩一等奖3次（2023年、2024年、2025年）、二等奖5次，并获得操控赛、单圈计时、耐久赛等单项赛奖项10余次。在2023年第七届中国汽车工程学会巴哈大赛中，该校BSC越野车队作为平均年龄最小的中职车队，一举拿下全国一等奖；2024年和2025年又连续夺得职校组全国一等奖。此外，巴哈团队累计培育学生获得各类专利授权6项，在“振兴杯”“互联网+”等创新创业类赛事中获得省部级及以上奖项10余项，主持相关区市级课题5项，获柳州市工人先锋号2次，同时一批经过巴哈车队培育和锻炼的优秀学子，升入高校后成为广西各高校巴哈车队的骨干队员，使竞赛资源能够辐射更广泛的学生群体。

3.4 柳州城市职业学院：以系统化对接为核心的“标准转化”模式

与前几种模式或侧重某一要素的引领不同，柳州城市职业学院的实践展现了一种系统化的“标准转化”模式，该模式的基本思路在于构建一套可操作的技术路径，将来自高端竞赛、行业规范和企业岗位的标准，逐级映射到课程体系、课堂教学和学生评价的各个环节。

该校智慧健康养老服务与管理专业群以“岗课赛证”融通为抓手，构建起“课堂教学、技能竞赛、产业服务”深度联动的育人模式，该专业群最具辨识度的举措，是在办公室内设置了“竞赛标准转化墙”，将世界职业院校技能大赛“健康养老照护”赛项的76个技能点进行系统拆解，形成可视化图表，并与《老年人能力评估实务》等14门专业课程的教学标准建立对应关系。这一做法使抽象的竞赛标准在一定程度上具象化为可教、可学、可测的教学内容，从而实现让世赛前

沿标准落地课堂。

在具体操作层面，该专业群构建了“世赛标准、行业规范和课程标准”的三维转化模型，将“以老年人为中心”的国际照护理念细化为“评估、照护、康复和管理”四大教学模块。同时建立了“国、区、校和班”四级竞赛体系，从面向全员的校级“技能闯关赛”，到自治区级大赛的精英选拔，再到世界职业院校技能大赛的国际竞技，形成了一条“分层培养、逐级提升”的成长通道。同时针对不同学习阶段，专业群推行“1+X+N”分层培养模式，“1”指贯穿学生生涯的“职业认知—技能达标—综合实战”一条主线；“X”指职业技能等级证书；“N”指多种个性化发展赛道。大一新生通过“技能启蒙周”中的趣味项目激发职业兴趣，大二学生开展“专项技能挑战赛”模拟真实照护场景，大三学生组建集训队实施强化训练。

在实训条件方面，该校建设了智慧康养产教融合中心，配备智能护理床、虚拟现实照护系统等设备，并连续承办2023、2024年度广西职业院校技能大赛。并推行三师协同机制，校内教师负责课程开发，产业导师（养老机构管理人员）开设实战讲堂，技能大师（世赛获奖选手、技术能手）传授前沿技术，近三年双师型教师占比达到85%，教师团队获自治区级教学能力比赛一等奖2项。

而从实践成效来看，该专业群近年获得世界职业院校技能大赛银奖2项、铜奖1项，全国职业院校技能大赛二等奖2项；拥有国家专利3项，主持制定推广地方标准3项；学生“1+X”职业技能等级证书考核通过率超过98%，学校年均培训养老护理员1500人次，毕业生就业后能够较快融入岗位，获用人单位较高评价。

4. 结论与反思

4.1 研究结论

“岗课赛证”综合育人的发展过程中，原本被视为附加于现有课程体系之外的岗位标准、竞赛要求与证书规范逐步逐渐整合为课程体系的有机组成部分，并在实践层面呈现出因校而异、因专业而别的多元化形态，广旅商以国际认证为引领，形成了“课证共生”模式，其核心在于将德国TÜV莱茵等第三方认证标准嵌入课程体系，实现课程内容与证书要求的协同更新；柳一职以产业链需求为逻辑起点，构建了“以岗定教”模式，其核心在于将区域龙头企业的岗位标准直接转化为课程标准，形成专业群随产业链升级、课程随技术迭代的动态调整机制；柳二职以高端竞赛为教学载体，探索了“赛教一体”模式，其核心在于将巴哈大赛等综合性竞赛项目系统性地嵌入专业教学体系；柳州城职院则以系统化标准转化为核心路径，构建了“标准转化”模式，其核心在于将世赛技能点进行拆解并与课程建立互嵌关系。

而这四种模式的形成，与各校的区域条件、专业属性、历史积累及校企合作传统密切相关，既“岗课赛证”综合育人的有效实施要根据各校自身条件选择适宜的融合路径，广旅商地处粤港澳大湾区，具备对接国际认证的区位优势和行业资源；柳一职依托柳州作为广西工业重镇的产业基础，拥有与头部企业深度合作的地缘便利；柳二职选择巴哈大赛作为切入点，与其交通运输类专业的学科特征相契合；柳州城职院智慧健康养老服务与管理专业群之所以能够实现精细化的标准转化，则与其专业面对的国际赛事情境和行业规范相对成熟有关。同时值得注意的是，上述四种模式中“课”的中心地位在融合过程中都得到了强化，无论“岗”“赛”“证”如何改变，其价值最终需要通过课程的落实来体现。

4.2 困境与反思

4.2.1 竞赛资源的普惠化及其限度

技能竞赛在“岗课赛证”综合育人中被赋予示范标杆的功能定位，然而如何使较高水平的竞赛标准和资源惠及更广泛的学生群体，是各校面临的共同挑战。在操作层面，竞赛资源的开发、转化和普惠化尚未被充分纳入教学工作的常规体系，竞赛指导与日常教学之间在时间、精力和资源分配上存在竞争关系，导致竞赛成果的转化往往停留在经验分享层面，系统化的教学改造仍显不足。这一困境的深层原因在于竞赛的选拔性逻辑与教学的普及性逻辑之间存在矛盾，前者旨在识别拔尖人才，后者则追求使每一位学生获得发展，若将二者简单等同，可能造成竞赛标准对日常教学的过度规制，也可能使竞赛本身失去其应有的选拔功能。因此将竞赛资源转化视为一项与竞赛训练具有同等重要性的教学学术工作，并给予相应的制度支持和资源保障，或可作为解决这一问题的思路，如可在校级层面设立竞赛资源转化的专项课题或教学改革项目，对参与转化工作的教师给予工作量认定和专业发展支持，使竞赛普惠化从理念倡导走向制度化的常态运行。

4.2.2 课程模块化建设的教师能力瓶颈

将岗位任务、竞赛标准转化为模块化课程，对教师的课程设计能力提出了较高要求，并非所有教师都具备将工作任务分解为逻辑清晰、可教可学的教学模块的系统性能力。柳一职通过教师挂职企业技术岗的制度，使教师能够深入理解岗位需求；柳州城职院通过“三师协同”机制，引入产业导师和技能大师参与课程开发；柳二职巴哈车队指导教师团队在长期的竞赛指导中积累了课程开发经验。说明教师能力的提升需要系统化的制度支撑。但从整体来看，多数职业院校教师在课程开发方面的专业训练仍然有限，传统生，大部分教师更习惯于执行既定课程标准而非参与课程设计，而将“岗”“赛”“证”等要求转化为课程内容，涉及工作分析、学习领域描述、学习情境设计等专业技术，这些能力的培养需要持续的专业支持和实践机会。院校可考虑构建分层分类的教师能力发展支持体系，提供从模仿借鉴到独立设计再到创新开发的阶梯式培训路径，也

可为不同专业类型的教师提供差异化的支持方案。

4.2.3 服务类专业融合路径的方法论支撑不足

最后相较于工科专业，旅游、康养等服务类专业的“岗课赛证”融合面临更多方法论层面的困难，因为工科专业的岗位能力边界相对清晰，竞赛体系相对成熟，技能标准便于量化，而服务类专业的岗位能力往往包含文化诠释、情感劳动、沟通共情等难以通过简单技能点罗列来覆盖的内容。广旅商茶艺专业以国赛标准作为岗位能力的参照，弥补了单纯依靠企业岗位描述可能产生的模糊性，但其在多大程度上可推广至其他服务类专业，仍需进一步检验。此外服务类专业的竞赛和证书体系相对分散，以康养领域为例，既有世界职业院校技能大赛的“健康养老照护”赛项，又有“1+X”老年照护职业技能等级证书及各类行业技能竞赛。如何在多个并行的标准之间进行价值判断与选择，如何将软技能进行可操作化的教学转化，目前仍缺乏成熟的理论指导和方法论支持。对此，将服务行业的各类权威评比标准（如星级酒店服务标准、金牌导游评选标准等）视为特殊的“赛”和“证”，尝试将中的软性要求进行结构化教学转化，是值得关注的探索方向。

综上所述，四所学校的实践表明“岗课赛证”的融合路径是多元的，而融合成效取决于各校能否根据自身条件找到适宜的切入点并建立起可持续的运行机制，未来的研究与实践可以进一步扎根于具体专业、具体情境，持续探索更多元的融合方式，同时可加强对中间转化环节的方法论建设，为院校和教师提供更具操作性的工具与参考。

参考文献

- 曹元军, 李曙生, 卢意. (2022). 高职产业学院“岗课赛证”融通研究. *教育与职业*, (7), 50-54.
- 程智宾, 李宏达, 张健. (2021). 岗课赛证融通培养模式的价值追问、学理依凭和实践创新. *职教论坛*, 37(11), 68-74.
- 高林, 许远, 张方. (2006). 职业院校“双证书”教学工作的研究——关于职业技术教育教学改革的思考. *中国职业技术教育*, (13), 14-16.
- 郭文富, 马树超. (2019). 新中国成立70年来职业教育发展的历史阶段特征与经验. *教育与职业*, (19), 5-10.
- 焦喆. (2023). 高职金融人才“岗课赛证创”综合育人模式功能价值与路径研究——基于“政、企、家、校”协同的视角. *教育理论与实践*, 43(30), 25-29.
- 刘兴, 陈永利, 加鹏飞. (2024). 职业本科“岗课赛证创研”融合育人的内在逻辑、模式构建和实施路径. *教育与职业*, (18), 65-70.
- 卢宇, 孙长坪, 曾鸣, 刘怡. (2024). 职业教育“岗课赛证”综合育人教学改革：价值意涵、运

行逻辑与实施路径. *教育科学论坛*, (24), 40-47.

罗洪艳, 闫运和. (2023). 高质量发展背景下高职院校“岗课赛证”综合育人的实践困境与路径突破. *职业技术教育*, 44(20), 17-21.

马玉霞, 王大帅, 冯湘. (2021). 基于“岗课赛证”融通的高职课程体系建设探究. *教育与职业*, (23), 107-111.

秦国锋, 李国帅, 糜沛纹, 李铭, 郑立云, 张云莉. (2022). “岗课赛证”融通视阈下职业教育课程开发: 要义、策略与路径. *职业技术教育*, 43(32), 42-48.

秦国锋, 李国帅, 杨雯铃, 黄良永, 糜沛纹. (2023). “岗课赛证”融通视域下职业教育课程评价: 范式转变与多元路径构建. *职教论坛*, 38(11), 47-54.

史晓慧, 杨鑫. (2023). “岗课赛证”四维联动提升高技能人才培养效能的路径探究. *北京工业职业技术学院学报*, 22(2), 55-58.

王婧, 徐涵. (2023). 2010—2022年“岗课赛证”研究综述: 内涵演变、基本特征及前景展望. *教育与职业*, (6), 92-98.

王丽新, 李玉龙. (2021). 高职院校“岗课赛证”综合育人的内涵与路径探索. *中国职业技术教育*, (26), 5-11.

王欣, 金红梅. (2022). 基于大职教观的职业教育“岗课赛证”融合育人的学理基础、内在要求及实施路径. *教育与职业*, (2), 21-28.

燕珊珊. (2022). 岗课赛证融通的高技能人才培养的功能价值、实现机制与推进路径. *教育与职业*, (10), 34-41.

杨淑钰, 黄雅帆. (2023). “岗课赛证”综合育人模式的内涵、特征与发展趋势. *教育科学论坛*, (18), 50-54.

叶杨翔. (2024). “岗课赛证创”综合育人模式探索与实践——以国际经济与贸易专业为例. *职业技术教育*, 45(5), 33-37.

张慧青, 王海英, 刘晓. (2021). 高职院校“岗课赛证”融合育人模式的现实问题与实践路径. *教育与职业*, (21), 27-34.

曾天山. (2021). “岗课赛证融通”培养高技能人才的实践探索. *中国职业技术教育*, (8), 5-10.

曾天山. (2022). 试论“岗课赛证”综合育人. *教育研究*, 43(5), 98-107.

曾天山, 陈斌. (2021). 对标世界水平赛事引领职业教育高质量发展. *中国职业技术教育*, (12), 98-104.

曾天山, 陈斌, 苏敏. (2021). 以高水平赛事促进“岗课赛证”综合育人——基于2021年全国职业院校技能大赛分析. *中国职业技术教育*, (29), 5-10.

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- Margins: 2.54 cm (1 inch) on all sides (top, bottom, left, right).
- Font: 11-point Times New Roman for the main text.
- Line Spacing: Double-spaced throughout the manuscript (including the reference section).
- Page Numbers: Continuously numbered in the upper right-hand corner, starting from the first page.

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- Must include: Title of the paper (centered, with initial capitalization), author names, institutional affiliations, and the email address of the corresponding author.
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- Figures and tables must be numbered (e.g., "Figure 1," "Table 2") and accompanied by concise captions (Centered in the top-left corner of the figure/table).
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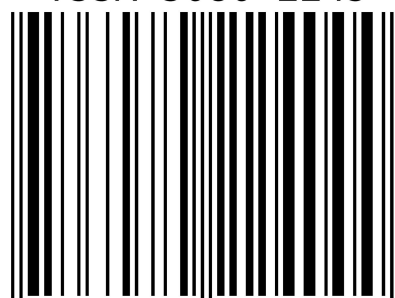
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