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The Role of the Corporate Mentor System in Addressing the Disconnection between Vocational Education and Industry Needs: A Case Study of Zhejiang Vocational College of Special Education

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Abstract: *This paper explores the implementation and effects of the corporate mentor system at Zhejiang Vocational College of Special Education in addressing the disconnection between vocational education and industry needs. By integrating industry experts directly into the training process, the corporate mentor system provides students with practical work experience and professional guidance, significantly enhancing their vocational skills and employability. Using a mixed-methods approach that combines in-depth interviews and surveys, this study identifies key areas of improvement in student outcomes, particularly in vocational skills, practical abilities, and employment competitiveness. The results indicate that the corporate mentor system effectively bridges the gap between education and industry, providing critical insights for enhancing vocational education practices. Additionally, this paper discusses challenges in mentor selection, training, and student-mentor matching, and proposes a comprehensive evaluation framework for optimizing the system.*

Keywords: *Vocational Education, Corporate Mentor System, Industry Needs, School-Enterprise Cooperation, Zhejiang Vocational College of Special Education*

1. Introduction

Vocational education aims to develop high-quality, skilled professionals capable of meeting the dynamic demands of the labor market. However, a persistent challenge exists: the disconnection between vocational education and industry needs, which often results in graduates facing difficulties integrating into the workforce. This disconnect is exacerbated by information asymmetry between vocational institutions and industry, outdated educational content that fails to meet current work requirements, and a lack of practical teaching resources. As industries rapidly evolve, the lag between curriculum updates and market demands can render certain skills obsolete, further widening the gap between education and industry.

In response to these challenges, Zhejiang Vocational College of Special Education has implemented a corporate mentor system. This system involves industry experts in the educational process, aiming to align students' theoretical learning with real-world applications. This study explores the system's implementation process, evaluates its effectiveness in enhancing students' vocational readiness, and discusses potential areas for further optimization. The study is grounded in Human Capital Theory and Social Learning Theory, which together provide a robust framework for understanding the impacts of mentorship on skill development and employability.

2. Literature Review

The corporate mentor system in vocational education is grounded in several key theoretical frameworks, each contributing to its understanding and application. The primary theories that inform this system are Synergy Theory and Contingency Theory.

Synergy Theory, proposed by Hermann Haken in the 1970s, emphasizes the importance of collaboration between internal elements within a system, suggesting that the interaction among these elements can create new, emergent properties that benefit the entire system [1]. In the context of vocational education, this theory underlines the necessity of close cooperation between educational

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institutions and industry. By working together to develop training objectives and curriculum content, these entities ensure that the learning process is closely aligned with actual work requirements. However, while Synergy Theory offers valuable insights into the benefits of collaboration, it may overlook the challenges of achieving effective cooperation, especially in environments where institutional inertia or conflicting interests may hinder such efforts.

Contingency Theory, introduced by Lawrence and Lorsch in 1967, posits that organizational success depends on the ability to adapt to changes in the external environment [2]. This theory provides a solid foundation for the flexibility required in vocational education curriculum design, advocating for educational institutions to continuously adjust their curricula and teaching methods to reflect the evolving needs of industries. While Contingency Theory is useful for understanding the dynamic nature of vocational education, it may underestimate the difficulties involved in implementing such changes within rigid or traditional educational systems.

Building on these frameworks, Human Capital Theory suggests that investments in education and training enhance an individual's productive capabilities [3]. This theory aligns well with the objectives of the corporate mentor system, which aims to increase employability through targeted skill development. Human Capital Theory emphasizes the economic returns of educational investments, positioning mentorship as a crucial element in enhancing students' career prospects. However, critics of this theory argue that it reduces education to a mere economic transaction, neglecting the broader social and personal benefits that education can provide.

Complementing this perspective, Social Learning Theory, proposed by Albert Bandura, emphasizes that learning occurs within a social context through observation, imitation, and modeling [4]. This theory reinforces the importance of mentorship in vocational education, where mentors not only provide direct instruction but also serve as role models, influencing students' professional behaviors and attitudes. Social Learning Theory is particularly relevant to the corporate mentor system, highlighting the impact of mentor-student interactions on skill acquisition and professional development. However, this theory may not fully account for the individual cognitive processes that also play a significant role in how students learn and apply new skills.

Internationally, similar systems have been implemented with varying degrees of success. For instance, Germany's dual education system and the community college model in the United States both emphasize the integration of practical work experience within educational frameworks [5]. These systems have been proven to significantly enhance students' practical skills and professional qualities by blending theoretical education with hands-on experience. The German model, in particular, is often lauded for its strong linkages between education and industry, providing a template for effective vocational training [6].. However, the successful implementation of these systems requires substantial coordination and cooperation between multiple stakeholders, a challenge that can be amplified in regions with less established infrastructures for vocational education.

In China, particularly in specialized institutions like Zhejiang Vocational College of Special Education, there is still a significant need for research focused on the specific implementation steps and effectiveness of such systems. While international models offer valuable insights, the unique cultural, economic, and institutional factors in China necessitate a customized approach to vocational education reform. Adapting successful elements from global models to the local context is essential to ensure that the corporate mentor system is both effective and sustainable in improving students' vocational readiness and employability [7].

3. Research Methods

This study employs a rigorous mixed-methods approach, integrating both qualitative and quantitative methodologies to comprehensively assess the impact of the corporate mentor system at Zhejiang Vocational College of Special Education. This approach allows for a nuanced exploration of the system's effects on students' vocational skills, professional development, and employability.

The qualitative component involved in-depth, semi-structured interviews with 10 corporate mentors, 10 students, and 5 teachers. These interviews were designed to explore participants' experiences and perceptions, aiming to uncover context-specific factors influencing the mentor system's success. The data were transcribed and analyzed using thematic analysis with NVivo software, allowing for the identification of recurring themes across stakeholder groups. This qualitative approach was chosen for its ability to provide rich, detailed insights into mentor-student interactions that quantitative methods

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alone might not capture.

The quantitative component involved administering structured questionnaires to 200 students participating in the mentor system. The questionnaires measured key variables such as vocational skill enhancement, practical operation ability, professional quality improvement, employment competitiveness, and student satisfaction, using a five-point Likert scale. Data were analyzed using SPSS software, including reliability testing (Cronbach's alpha) and exploratory factor analysis. Descriptive and inferential statistics, such as t-tests and regression analysis, were employed to examine the relationships between variables and the mentor system's impact on student outcomes. This quantitative approach provided a broad overview, enabling the generalization of findings across the student population.

To integrate the findings from both qualitative and quantitative components, a concurrent triangulation strategy was employed. This involved comparing and contrasting qualitative insights with quantitative results to identify areas of convergence and divergence. For instance, themes emerging from the interviews were cross-referenced with statistical patterns identified in the questionnaire data to ensure a comprehensive interpretation of the results [8]. The integration of qualitative and quantitative data enhances the validity of the study by providing a more holistic view of the mentor system's impact. It allows for a richer interpretation of the findings, where the qualitative data can explain the mechanisms behind the quantitative outcomes, and vice versa.

4. Interviews

The in-depth interviews involved 10 corporate mentors, 10 students, and 5 teachers, focusing on the implementation process of the corporate mentor system, the effectiveness of mentor guidance, student feedback, and challenges encountered during implementation. The interviews were recorded and transcribed verbatim, with thematic analysis conducted to identify key themes and patterns [9].. This qualitative approach provided rich data, offering insights into the contextual factors that influence the success of the mentor system.

5. Questionnaire Survey

A structured questionnaire survey was conducted with 200 students participating in the corporate mentor system. The survey assessed five key dimensions: vocational skill enhancement, practical operation ability, professional quality improvement, employment competitiveness, and student satisfaction, across 20 questions. Responses were measured using a five-point Likert scale [10].. Reliability and validity analyses were performed using SPSS software, followed by descriptive statistics and correlation analysis to interpret the data [11].. This quantitative approach allowed for a robust evaluation of the mentor system's impact on various student outcomes.

6. Implementation Plan

The implementation of the corporate mentor system began with selecting partner enterprises that align with the college's professional settings and training objectives. Cooperation agreements were established to define the roles and responsibilities of corporate mentors, including their involvement in curriculum design, vocational training, and career counseling [12].. Corporate mentors participated in regular face-to-face guidance sessions at the college, remote guidance via online platforms, and facilitated student involvement in real-world enterprise projects.

The selection and training of mentors were crucial steps, with industry experts recommended by enterprises to serve as mentors. The college provided comprehensive training covering education theory, special education needs, and mentorship skills to ensure mentors were adequately prepared [13].. Selection criteria for mentors included industry experience, professional expertise, and educational background. Training formats included centralized sessions, online courses, and workshops. This structured training program enabled mentors to effectively guide students and enhance their vocational skills and employability.

Matching mentors with students was a key process, based on the students' professional directions and career interests, ensuring targeted and effective guidance. The matching process involved analyzing students' needs, evaluating mentors' abilities, and creating matching schemes that considered

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professional alignment, career interests, and personality compatibility [14]..

Following this, mentors and students collaboratively developed personalized training plans, which included vocational skills training, professional quality improvement, and career guidance. These plans were tailored to each student's needs and included regular mentor meetings, self-directed learning, and practical training sessions. This personalized approach ensured comprehensive enhancement of students' vocational skills and employability [15]..

Throughout the implementation, mentors regularly met with students to conduct skills training and provide career guidance. The college monitored and evaluated the effectiveness of these interactions through student feedback, mentor self-evaluations, and institutional assessments [16].. This ongoing evaluation ensured the mentor system's effectiveness, contributing to the continuous improvement of students' vocational skills and employability.

7. Research Results

The study at Zhejiang Vocational College of Special Education revealed that the corporate mentor system significantly enhanced students' vocational skills, practical operation abilities, professional quality, and employment competitiveness.

Table 1 compares the outcomes of students who participated in the mentor system with those who did not. The data show that participants reported higher levels of vocational skill enhancement, with a mean score of 4.25 compared to 3.80 for non-participants. This statistically significant difference ($p < 0.05$) indicates that the mentor system effectively bridges the gap between theoretical learning and practical application.

Table 1: Comparison of Participating and Non-Participating Students.

Variable	Participating Students (Mean)	Non-Participating Students (Mean)	p-value	Variable	Participating Students (Mean)
Vocational Skill Enhancement	4.25	3.80	< 0.05	Vocational Skill Enhancement	4.25
Practical Operation Ability	4.30	3.75	< 0.05	Practical Operation Ability	4.30
Professional Quality Improvement	4.15	3.60	< 0.05	Professional Quality Improvement	4.15
Employment Competitiveness	4.40	3.85	< 0.05	Employment Competitiveness	4.40
Student Satisfaction	4.35	3.70	< 0.05	Student Satisfaction	4.35

In terms of practical operation ability, participants scored an average of 4.30, significantly higher than the 3.75 reported by non-participants. This improvement highlights the value of the hands-on experience provided by mentors, which is crucial in vocational education where practical skills are essential for workforce readiness. The statistically significant differences across all measured variables in Table 1 underscore the broad impact of the mentor system on student outcomes.

The study also found a notable improvement in professional quality, which includes work ethics and industry-specific knowledge. Students in the mentor system scored 4.15 on this dimension, compared to 3.60 for non-participants. This result suggests that mentors are instrumental not only in developing technical skills but also in fostering the professional behavior expected in the workplace.

One of the most significant findings was the enhancement of employment competitiveness, with participants scoring 4.40 on average, compared to 3.85 for non-participants. The longitudinal analysis presented in Table 2 shows steady improvements in all areas measured over the course of the mentor program. Vocational skill enhancement scores increased from 3.20 before the program to 4.25 after its completion, illustrating the cumulative benefits of ongoing mentorship. Similarly, practical operation ability and employment competitiveness showed consistent growth, with scores rising from 3.10 to 4.30 and from 3.15 to 4.40, respectively. These results suggest that the benefits of the mentor system are sustained and that students become progressively more skilled and employable as they receive continuous guidance and practical experience.

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Table 2: Longitudinal Analysis of Student Progress.

Time Point	Vocational Skill Enhancement (Mean)	Practical Operation Ability (Mean)	Employment Competitiveness (Mean)
Before Program	3.20	3.10	3.15
Mid Program	3.90	3.85	4.00
After Program	4.25	4.30	4.40

The regression analysis in Table 3 identified mentor satisfaction as a key predictor of employment success, with a beta coefficient of 0.45 ($p < 0.01$). This suggests that a strong mentor-student relationship is critical for building the confidence and capabilities needed for students to succeed in the job market. Vocational skill enhancement ($\beta = 0.35$, $p < 0.05$) and professional quality improvement ($\beta = 0.30$, $p < 0.05$) also significantly contributed to higher employment competitiveness.

Table 3: Regression Analysis on Employment Competitiveness.

Predictor Variable	Beta Coefficient	Standard Error	p-value
Mentor Satisfaction (Students)	0.45	0.10	< 0.01
Vocational Skill Enhancement	0.35	0.09	< 0.05
Professional Quality Improvement	0.30	0.08	< 0.05

Overall student satisfaction with the mentor system was high, with a mean score of 4.35 among participants, compared to 3.70 among non-participants. This level of satisfaction likely reflects the perceived value of mentorship in enhancing both professional development and the overall educational experience.

These data collectively highlight the effectiveness of the corporate mentor system in enhancing vocational education outcomes, supporting the need for similar systems in other institutions to better align educational practices with industry requirements.

8. Discussion

The study demonstrates that the corporate mentor system at Zhejiang Vocational College of Special Education significantly enhances students' vocational skills, practical abilities, professional quality, and employment competitiveness. The system bridges the gap between theoretical knowledge and practical application, supported by mentors' industry-specific insights. This aligns with Synergy Theory, highlighting the benefits of collaboration between education and industry.

Improvements in professional quality suggest that mentors influence not only technical skills but also professional behavior, reinforcing Social Learning Theory. The strong correlation between mentor satisfaction and employment competitiveness indicates that a positive mentor-student relationship is crucial for building confidence and market readiness, in line with Human Capital Theory. High student satisfaction further emphasizes the value of mentorship in enhancing both professional development and overall educational experience.

However, the study's focus on a single institution may limit its generalizability. Additional research, particularly qualitative studies, could explore the nuanced dynamics of mentor-student interactions. These findings have significant implications for vocational education, suggesting that similar programs could address industry needs more effectively.

9. Conclusion

The corporate mentor system has proven effective in bridging the gap between vocational education and industry needs at Zhejiang Vocational College of Special Education. By integrating industry professionals into the educational process, the system significantly improves students' vocational skills, professional quality, and employment competitiveness, validating the importance of mentorship in vocational education.

To further enhance vocational education, the mentor system should be expanded to other institutions, incorporating a broader range of industry partnerships. Continuous training for mentors is essential to ensure they are equipped with the necessary skills to guide students effectively.

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Implementing ongoing monitoring and feedback mechanisms will help maintain the quality of mentorship and adapt to evolving student and industry needs.

Future research should explore the system's effectiveness across multiple institutions and industries, including longitudinal studies to assess long-term career outcomes. Additionally, integrating mentors into the curriculum design process will ensure that educational programs remain aligned with current industry standards and practices.

References

[1] Haken, H. (1983). Synergetics: An introduction. Springer.
[2] Lawrence, P. R., & Lorsch, J. W. (1967). Organization and environment: Managing differentiation and integration. Harvard University Press.
[3] Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.
[4] Bandura, A. (1977). Social learning theory. Prentice-Hall.
[5] Euler, D. (2013). Germany's dual vocational training system: A model for other countries? Bertelsmann Stiftung.
[6] Deissinger, T. (2015). The German dual vocational education and training system as 'good practice'? Local Economy, 30(5), 557-567.
[7] Liu, Y., & Wang, C. (2020). Adapting international vocational education models to local contexts in China: A review and analysis. Journal of Vocational Education and Training, 72(3), 347-362.
[8] Creswell, J. W., & Plano Clark, V. L. (2017). Designing and conducting mixed methods research (3rd ed.). Sage.
[9] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101.
[10] Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology, 22(140), 1-55.
[11] Field, A. (2013). Discovering statistics using IBM SPSS statistics (4th ed.). Sage.
[12] Shapira-Lishchinsky, O., & Levy-Gazenfrantz, L. (2016). The multifaceted nature of mentors' ethical roles in education. Ethics and Education, 11(2), 233-245. https://doi.org/10.1080/17449642.2016.1177831
[13] Fletcher, S. J., & Mullen, C. A. (Eds.). (2012). The SAGE handbook of mentoring and coaching in education. Sage.
[14] Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. Research in Higher Education, 50(6), 525-545.
[15] Ehrich, L. C., Hansford, B., & Tennent, L. (2004). Formal mentoring programs in education and other professions: A review of the literature. Educational Administration Quarterly, 40(4), 518-540. https://doi.org/10.1177/0013161X04267118
[16] Klinge, C. M. (2015). A conceptual framework for mentoring in a learning organization. Adult Learning, 26(4), 160-166.