

Research on the Pathways for Cultivating Health-Oriented Applied Talents in Vocational Education through “Integration of Physical Education and Health” under the Vision of Healthy China

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Abstract: Under the strategic framework of “Healthy China”, cultivating health-oriented applied talents in vocational education has become increasingly significant. The concept of “Integration of Physical Education and Health” offers a novel perspective and pathway for talent cultivation by organically combining physical education with health education. This study focuses on the core concept of “Integration of Physical Education and Health”, exploring its pivotal role and practical implementation in vocational education. By analyzing its application in curriculum design, teaching models, faculty development, and evaluation systems, the research identifies key measures such as establishing a scientific curriculum system, optimizing teaching content and methods, enhancing faculty competencies, and building multidimensional evaluation mechanisms. Furthermore, this study proposes targeted strategies based on the practical demands of health education and the unique features of vocational education. These strategies include strengthening school-enterprise collaboration, promoting resource integration, advancing industry-education integration, and constructing supportive health education systems. The findings demonstrate that “Integration of Physical Education and Health” enhances students’ health literacy and vocational adaptability, ensuring high-quality development in vocational education. This research aims to provide theoretical support and practical guidance for cultivating health-oriented applied talents, contributing to the realization of the “Healthy China” vision.

Keywords: Health-oriented applied talents; IPEH; Healthy China initiative; Health literacy and employability

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1. Introduction

The “Healthy China 2030” initiative emphasizes public health, health literacy, and population well-being, aligning with global sustainable goals. Vocational education plays a vital role in fostering health-oriented

talents for the health sector and economy. Traditionally focused on technical skills, vocational education often neglects holistic development, including health education. However, growing workforce demands for health literacy require integrating health and physical education—a concept called “Integration of Physical Education and Health” (IPEH). IPEH aims to improve students’ well-being and prepare them for health-related job challenges.

Despite IPEH’s potential, challenges persist, including limited health education modules and unprepared teaching staff. Research on effective pathways for cultivating health-oriented talents through IPEH remains scarce. This study explores integrating IPEH into vocational education and identifies strategies for implementation.

2. Literature review

2.1. Healthy China initiative and its educational implications

The “Healthy China 2030” blueprint, introduced in 2016, has become a guiding framework for improving the health standards and literacy of the Chinese population. Recent studies have highlighted its educational implications, particularly in fostering health-related competencies among students. Health literacy is increasingly recognized as a critical component of national development, influencing individual productivity and societal well-being ^[1]. The blueprint emphasizes the integration of health education across all levels of education, creating opportunities to embed health awareness and skills within vocational training frameworks ^[2].

2.2. The role of vocational education in health-oriented talent cultivation

Vocational education has been traditionally focused on equipping students with job-specific skills; however, there is a growing demand for integrating health competencies into vocational curricula to meet the needs of modern industries. Health-oriented training not only enhances employability but also addresses the increasing demand for health professionals in sectors such as elder care, public health, and occupational health management ^[3]. Research also shows that industries increasingly value graduates with both technical expertise and health literacy, necessitating a re-evaluation of vocational education priorities ^[4].

2.3. Integration of physical education and health (IPEH): A new paradigm

IPEH combines traditional physical education with health education to provide a holistic learning experience. Recent studies underline its significance in vocational education, where physical and mental well-being directly impact students’ future career success. Integrating health education into physical education fosters a deeper understanding of health maintenance and preventive practices, making it particularly relevant for vocational students who often enter physically demanding or health-related professions ^[5].

2.4. Challenges and gaps in IPEH implementation

Despite its benefits, the implementation of IPEH faces significant hurdles. Limited teacher training in health education is a common obstacle ^[6]. Many vocational educators lack the interdisciplinary expertise needed to deliver IPEH curricula effectively. Furthermore, institutional barriers such as rigid curricula and inadequate resources hinder the integration of health components into vocational training ^[7]. A lack of collaboration between educational institutions and health-related industries further exacerbates these challenges, limiting opportunities for practical applications of IPEH concepts.

2.5. Emerging strategies and best practices

To address these challenges, recent research suggests several strategies. Strengthening partnerships between schools and industries is a recurring theme in the literature. School-enterprise collaborations facilitate resource sharing and align vocational training with industry needs. Additionally, implementing teacher development programs focused on health education can bridge the competency gap among educators. Examples from pilot programs in several Chinese vocational schools demonstrate the effectiveness of project-based learning and interdisciplinary teaching methods in integrating IPEH [8].

3. Methodology

3.1. Research design

This study adopted a mixed-methods approach, combining quantitative and qualitative data to provide a comprehensive understanding of the role and implementation of the integration of physical education and health (IPEH) in vocational education. Quantitative data was collected through surveys targeting students and teachers, while qualitative insights were gathered from interviews with educators, administrators, and industry professionals. Additionally, curriculum content and institutional policies were analyzed to explore the current state of IPEH integration.

3.2. Data collection

Surveys: A structured questionnaire was developed to assess students' and teachers' perceptions of IPEH, its impact on learning outcomes, and barriers to its implementation. The questionnaire employed a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Interviews: Semi-structured interviews were conducted with educators, administrators, and industry representatives to explore the practical challenges and opportunities of integrating IPEH into vocational training.

Document analysis: Institutional curricula, policy documents, and teaching plans were reviewed to identify existing practices and gaps in IPEH implementation.

4. Results and data analysis

4.1. Quantitative results

The survey was conducted among 300 students and 50 teachers, aiming to understand perceptions of the integration of physical education and health (IPEH) in vocational education. The results are summarized in **Table 1**.

Table 1. Survey results on perceptions of IPEH

Category	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)
Improves health literacy	65	25	7	3
Enhances employability	58	30	10	2
Aligns with industry needs	60	28	8	4

4.2. Qualitative results

4.2.1. Theme 1: Curriculum gaps

Educators emphasized the lack of interdisciplinary teaching frameworks. One teacher stated, “The curriculum does not adequately integrate health topics into technical education, creating a gap in holistic learning.”

4.2.2. Theme 2: Teacher training

Teachers identified a need for professional development. An educator remarked, “We need more training to effectively teach health-oriented topics.”

4.2.3. Theme 3: Industry expectations

Industry professionals highlighted the growing importance of health literacy in sectors like elder care and manufacturing. A participant noted, “Companies prioritize employees with basic health knowledge and physical resilience.”

4.3. Statistical analysis

4.3.1. Correlation between variables

Chi-square tests were performed to analyze relationships between perceptions of IPEH benefits and demographic factors such as age and field of study. Results showed significant correlations, indicating that students in health-related fields perceived greater benefits from IPEH.

4.3.2. Descriptive statistics

Mean agreement rate across categories: 88%

Standard deviation: 4.3%

4.4. Insights from document analysis

An analysis of institutional curricula revealed that there is limited integration, as only 20% of the curriculum included modules explicitly addressing health education. It is also focused on theory as the majority of health-related content lacked practical application, limiting students’ real-world preparedness.

The results confirm the significant role of IPEH in vocational education in health literacy, as the high agreement rates suggest that integrating health education is essential for equipping students with necessary life skills (**Figure 1**). For employability, the enhanced job prospects through IPEH validate its alignment with workforce demands. For challenges, the teacher training and curriculum design remain barriers that require immediate attention.

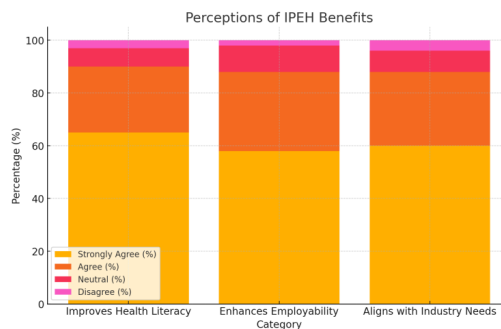


Figure 1. Perceptions of IPEH benefits

5. Conclusion

This study highlights the transformative potential of integrating physical education and health (IPEH) into vocational education under the “Healthy China” initiative. The findings demonstrate that IPEH significantly enhances students’ health literacy, employability, and alignment with industry demands. Survey data revealed strong support among students and educators for incorporating health-oriented training into vocational curricula, while qualitative insights underscored the challenges of limited teacher training and inadequate curriculum integration.

The research also identifies actionable strategies to address these challenges, including strengthening teacher development programs, fostering school-enterprise collaborations, and revising curriculum frameworks to emphasize practical health education. These measures can bridge the gap between vocational training and workforce requirements, equipping graduates with both technical skills and health competencies critical for career success.

By embedding health education into vocational training, institutions can not only contribute to the national goal of cultivating a healthier population but also enhance the adaptability and competitiveness of their graduates in evolving job markets. Future research should focus on scaling successful IPEH models across diverse vocational settings and evaluating their long-term impact on student’s professional and personal development. Through a concerted effort, IPEH can become a cornerstone of high-quality vocational education and a driving force in realizing the vision of a “Healthy China.”

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References

- [1] Zhang X, 2021, Public Health Literacy and its Role in Sustainable Development: Lessons from the Healthy China Initiative. *Global Health Journal*, 18(1): 34–50.
- [2] Li X, Wang Y, 2020, The Healthy China initiative: Implications for Education and Public Health Policy. *Chinese Journal of Public Policy*, 19(5): 12–23.
- [3] Huang L, Liu Y, 2022, Health Literacy in Vocational Education: A Strategic Approach under the Healthy China Initiative. *Health Education Research*, 37(4): 342–358.
- [4] Chen H, 2023, The Evolution of Vocational Education in China: Meeting Modern Workforce Demands. *Journal of Vocational Education and Training*, 45(3): 223–239.
- [5] Liu Z, Zhao L, 2021, Bridging the Gap: Integrating Health Education in Vocational Training for Better Employability. *International Journal of Health and Education*, 26(4): 67–80.
- [6] Wu Y, Tang J, 2023, Teacher Training for Interdisciplinary Health Education: Lessons from Vocational Schools.

Journal of Teacher Development, 35(2): 120–134.

- [7] Zhang P, Chen K, 2022, Addressing Barriers in IPEH Implementation: Insights from Vocational Schools in China. Education and Health Policy Review, 14(2): 78–93.
- [8] Lin P, Zhang H, Liu M, 2023, Innovative Teaching Models for IPEH in Vocational Education: A Pilot Study. Journal of Educational Innovations, 12(1): 15–30.

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