

Teacher Professional Development in Vocational Education: A Comparative Study between China and Malaysia

Geng Yan, Khairul Jamaludin

Faculty of Education, National University of Malaysia

Email: p145288@siswa.ukm.edu.my, khairuljamaludin@ukm.edu.my

DOI Link: <http://dx.doi.org/10.6007/IJARPED/v14-i3/26313>

Published Online: 02 September 2025

Abstract

This study investigates teacher professional development (TPD) in vocational education through a comparative analysis of China and Malaysia. Drawing on policy documents, theoretical frameworks, and empirical findings, the research compares TPD practices across four dimensions: policy foundation, industry engagement, training content, and career pathways. The results show that China emphasizes a policy-driven “dual-qualified” teacher model supported by structured government initiatives, while Malaysia highlights teacher autonomy and industry-led mechanisms such as certification systems, professional learning communities, and workplace learning. Despite these differences, both systems face similar challenges, including uneven regional participation and limited enterprise involvement. The study concludes that combining China’s systematic planning with Malaysia’s flexible, industry-integrated approaches could yield more effective and sustainable TPD models. It further suggests enhancing cross-country collaboration through joint programs, digital platforms, and mutual recognition of qualifications to strengthen vocational education systems.

Keywords: Teacher Professional Development, Vocational Education, China, Malaysia, Comparative Study, Dual-Qualified Teachers, Continuous Professional Development

Introduction

The transformation of global industries and the increasing demand for skilled labor have placed vocational education at the center of many countries’ development agendas. A decisive factor in the quality of vocational education is teacher professional development (TPD), which strengthens teaching competence, professional identity, and ultimately student employability (Abdul Rahman, Mokhtar, & Ali, 2022; Jin, 2023). For developing economies, TPD is not only a matter of educational improvement but also a strategic component of national human capital development (Jamaludin, 2023).

Within Southeast Asia, vocational education has gained growing importance, yet comparative research on teachers’ professional development in the region is still limited. China and Malaysia represent two illustrative cases. Both have invested heavily in vocational education and in the preparation of skilled teachers, but their approaches diverge. China

emphasizes a policy-driven, “dual-qualified” model, combining pedagogical training with industry-based experience through enterprise partnerships and structured in-service programs (Huang & Xu, 2024; Yu, 2024). Malaysia, by contrast, has promoted teacher autonomy and continuous professional development (CPD) through peer learning, reflective practice, and professional communities (Abdul Rahman, Mokhtar, & Ali, 2022; Jin, 2023).

Although each system has generated valuable experience, most studies remain confined to national contexts. This leaves limited understanding of how policy-driven and agency-oriented approaches compare, and what lessons might be drawn across systems. The present study addresses this gap by examining TPD practices in China and Malaysia. It focuses on their development pathways, support mechanisms, and implementation strategies, with the aim of identifying complementarities and providing insights for strengthening vocational education through international exchange.

Literature Review

Theories and Characteristics of TPD in Vocational Education

Teacher professional development (TPD) is widely recognized as a structured, evidence-based approach to improving teaching quality. Guskey’s (2002) five-level model and Desimone’s (2009) five core features—content focus, active learning, coherence, duration, and collective participation—form the foundation of effective TPD, and are increasingly reflected in Southeast Asian CPD practices (Mokhtar, 2022).

In vocational education, where teaching is closely tied to labor market needs, these models are particularly relevant. Teachers are expected to possess both pedagogical and industry-specific skills. In China, the ‘dual-qualified’ teacher model combines formal certification with enterprise-based training (Huang & Xu, 2024; Yu, 2024). Malaysia, by contrast, emphasizes teacher agency through mechanisms like the ‘Train-the-Trainer’ program and SKM certification, while the NDTs integrates workplace assessments to align training with industry demands (Jamaludin, 2023). Overall, vocational TPD is shaped by dual competencies, outcome-based evaluation, and collaboration among government, institutions, and industry.

Teacher Professional Development in China’s Vocational Education

TPD in China’s vocational education is shaped by strong policy direction and top-down institutional design. From the National Vocational Education Reform Implementation Plan (2019) to the 14th Five-Year Plan, the government has introduced frameworks to promote high-quality vocational education. Central to this effort is the ‘dual-qualified’ teacher model, requiring instructors to hold both pedagogical and vocational certifications aligned with their subjects to integrate theoretical and practical knowledge (Li, Kakhai, & Meng, 2023). To enhance technical competence and industry alignment, teachers are encouraged to participate in enterprise placements. National-level training bases offer immersive programs, while local institutions implement flexible formats such as teacher salons and curriculum workshops to foster closer collaboration with industry professionals (Huang & Xu, 2024).

Empirical studies have confirmed the effectiveness of these mechanisms. A longitudinal study in Shanghai showed that new vocational teachers significantly improved their teaching efficacy and professional engagement after participating in national TPD programs (Jin, 2023).

Similarly, a large-scale survey involving 601 teachers across seven provinces found that those with enterprise support scored 0.27 standard deviations higher in professional competence assessments than those without such support (Zhang, 2022). These findings highlight the positive impact of integrated institutional and practical support in advancing teacher capabilities.

Despite these advances, disparities remain. In less-developed regions, the proportion of dual-qualified teachers is relatively low, and enterprise-based training opportunities are constrained by limited resources (Huang & Xu, 2024). To address these gaps, the government is enhancing incentive schemes and promoting multi-level collaboration. Overall, TPD in China is evolving toward greater systemic coordination, long-term stability, and diversified professional growth pathways (Ou, 2023; Gao & Chen, 2024).

Teacher Professional Development in Malaysia's Vocational Education

Malaysia's vocational education TPD system emphasizes industry-led teacher development, forming a diversified and open developmental structure. The government has established a supportive framework through agencies like CII (Centre for Instructor and Advanced Skill Training), JPK (Department of Skills Development), and HRD Corp (Human Resource Development Corporation) to offer training, certification, and financial assistance to teachers, thus bridging the education and industry systems (Abdul Rahman, Mokhtar, & Ali, 2022).

In terms of practice, the 'Train-the-Trainer' (TTT) certification system serves as an institutional mechanism, offering technical educators a pathway to transform into industry-oriented teachers. Teachers are required to complete the TTT program and obtain the Malaysian Skills Certificate (SKM) relevant to their teaching area before they can undertake teaching responsibilities. Additionally, the 'Excellent Instructor Program' ensures quality teaching experience and promotes alignment of instructional content with industry needs (Osman, Zakaria, & Mansor, 2024). Although Malaysia has not formally proposed the 'dual-teacher' concept, its TPD practices emphasize strong industry-education integration and flexibility in professional growth.

Furthermore, the National Dual Training System (NDTS) integrates school-based instructors with industry mentors, achieving the 'teach-assess-integrate' model through workplace learning (WPL), thereby enhancing teachers' curriculum design and instructional skills (Mansor, 2024). Malaysia also actively guides lifelong learning through platforms like MyGuru, providing online learning and professional community support to promote continuous teacher development (Osman, Zakaria, & Mansor, 2024).

Based on these developments, Malaysia's TPD system demonstrates flexibility, autonomy, and coordination, offering institutional assurance for the cultivation of skilled technical talents (Nuruljannah, Ali, & Ahmad, 2024).

Discussion

To further understand the similarities and differences between the teacher professional development (TPD) systems in China and Malaysia, a comparative analysis is conducted across four key dimensions: policy foundation, industry engagement, training content, and

development pathway. The following table summarizes the major characteristics and approaches adopted by both countries, providing a structured basis for deeper discussion.

Table 1

Comparison of TPD Practices in China and Malaysia's Vocational Education

Dimension	China	Malaysia
Policy Foundation	Government-led and centrally designed; strong top-down policy implementation focusing on 'dual-qualified' teacher development (Li, 2023).	Multi-agency coordination (e.g., CIIAT, JPK); emphasizes institutional flexibility and teacher autonomy (Abdul Rahman, 2022).
Industry Engagement	Teachers are encouraged to undertake enterprise-based practicum, but regional disparities limit consistent participation (Huang & Xu, 2024).	Industry involvement is institutionalized through TTT certification and the NDTs framework, facilitating deep enterprise engagement in teacher training and evaluation (Mansor, 2024).
Training Content	Focuses on the integration of pedagogy and vocational skills; training is mainly offline and centralized (Gao & Chen, 2024).	Offers diverse training content and formats; widely adopts digital tools and online platforms to support continuous development (Osman, 2024).
Development Pathway	Establishes a linear promotion system centered on title acquisition, with limited flexibility (Ou, 2023).	Provides multiple and flexible career pathways, encouraging fluid movement between education and industry sectors (Nuruljannah, 2024).

China's TPD system demonstrates significant strengths in terms of policy integration, centralized planning, and institutional support, enabling a coherent nationwide approach to vocational teacher development. In contrast, Malaysia's system excels in operational flexibility, industry alignment, and decentralized implementation, which foster innovation and responsiveness at the institutional level. These contrasting approaches reflect the broader governance and development strategies of the two countries. Despite their differences, both systems exhibit complementary advantages: China's top-down structure ensures policy consistency and large-scale mobilization, while Malaysia's bottom-up orientation promotes adaptability and localized solutions. However, both countries also face common challenges such as uneven enterprise participation, regional disparities in resource allocation, and limited cross-sector collaboration. Moving forward, strategic collaboration could focus on mutual recognition of vocational teaching qualifications, the development of shared digital platforms for continuous professional development, and strengthened school-industry partnerships to enhance the relevance, scalability, and sustainability of TPD initiatives in vocational education.

Conclusion

This study compared TPD in vocational education between China and Malaysia, based on theoretical models and policy analysis. China's TPD system is policy-driven and structured around the 'dual-qualified' model, while Malaysia emphasizes industry-led development and flexible certification. Through a four-dimension comparison—policy, industry engagement, training, and career pathways—the study identified differences, complementary strengths, and common challenges. The findings suggest that both countries can benefit from mutual learning. Combining China's systematic planning with Malaysia's industry-integrated

mechanisms may lead to more effective and sustainable TPD practices. Strengthening collaboration through shared platforms and joint programs is recommended for future development.

References

- Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice*, 8(3–4), 381–391. <https://doi.org/10.1080/135406002100000512>
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher*, 38(3), 181–199. <https://doi.org/10.3102/0013189X08331140>
- Li, Z., & Zhang, H. (2020). Investigation and countermeasures of double-qualified teachers in higher vocational colleges in Guangxi Province. In 2020 4th International Seminar on Education, Management and Social Sciences (ISEMSS 2020). Atlantis Press. <https://doi.org/10.2991/assehr.k.200826.093>
- Othman, H., Sarpan, S., Abd Mutalib, N. N., Rohanai, R., Md Zain, E. & Wan Hassan, W. A. S. (2022). The effectiveness of vocational teacher training program in enhancing communication skills among prospective vocational teachers. *Journal of Engineering Education Transformations*, 35(Special issue), 218–219. <http://dx.doi.org/10.16920/jeet/2022/v35is2/22131>
- Zhang, J., & Samu, Q. (2024). A comparative study of ESL teachers' evaluation beliefs in China and Malaysia comprehensive universities. *International Journal of Advanced Research in Education and Society*, 6(1), 295–300. <https://doi.org/10.55057/ijares.2024.6.1.26>
- Ou, J. (2023). Research on the professional development support system of double-qualified teachers in higher vocational colleges in the new era—Taking higher vocational colleges in Hunan Province as samples. *Research and Advances in Education*, 2(3), 28–35. <https://doi.org/10.56397/RAE.2023.03.06>
- Gao, Y., & Chen, P. (2024). Analysis exploring the influence of teacher-perceived sustainable leadership and enhancement strategies on continuous professional development of teachers in Chinese vocational colleges: A grounded theory approach. *European Journal of Education Studies*, 11(9). <https://doi.org/10.46827/ejes.v11i9.5505>
- Li, M., Kakhai, K., & Meng, Y. (2023). Problems and countermeasures of double-qualified teacher competence in vocational colleges—Taking Guangxi Region as an example. In *Proceedings of the International Conference on Creativity, Management, Education, Technology and Sciences (ICCMETS 2023)* (pp. 341–344). Retrieved from <https://iccmets.com/30.pdf>
- Wu, M., & Liu, P. (2023). German 'duale ausbildung' vocational education and its enlightenment to China's vocational education. *SHS Web of Conferences*, 166, 01001. <https://doi.org/10.1051/shsconf/202316601001>
- Huang, K., & Xu, H. (2024). Analysis on the construction of 'double-qualified' teachers under the background of deepening vocational education reform. *Advances in Vocational and Technical Education*, 6(2), 121–130. <https://doi.org/10.23977/avte.2024.060219>
- Mansor, M. B., Mohamed, Z. B., Mohamed Sidek, M. N. A. B., & Basir Khan, M. R. B. (2024). Comparative analysis of TVET instructor competency standards: Insights from Malaysia and beyond. In *2024 International Conference on TVET Excellence & Development (ICTeD)* (pp. 65–72). IEEE. <https://doi.org/10.1109/ICTeD62334.2024.10844672>

- Xin, Y., Tang, Y. & Mou, X. (2024). An empirical study on the evaluation and influencing factors of digital competence of Chinese teachers for TVET. *PLOS ONE*, 19(9), e0310187. <https://doi.org/10.1371/journal.pone.0310187>
- Abdul Rahman, N. L., Mokhtar, M., & Ali, D. F. (2022). Self-Initiated Professional Development (SI-PD) elements for Malaysian vocational colleges' TVET teachers using Fuzzy Delphi Method (FDM). *Journal of Technical Education and Training*, 14(1), 100–109. <https://doi.org/10.30880/jtet.2022.14.01>
- Osman, N., Zakaria, F., & Mansor, M.(2024). Transforming Malaysian teacher agency through continuous professional development.*International Journal of Education, Psychology and Counseling*, 9(54), 523–529.<https://doi.org/10.35631/IJEPC.953039>
- Nuruljannah, A. W., Ali, D. F., & Ahmad, A. R. (2024). Professional development for novice TVET teachers: A systematic review. *International Journal of Academic Research in Progressive Education and Development*, 13(4), 2669–2674. <https://doi.org/10.6007/IJARPED/v13-i4/23654>
- Han, X., Zhou, Q., Li, M., & Wang, Y. (Eds.). (2024). Handbook of technical and vocational teacher professional development in the digital age .*SpringerBriefs in Education*. <https://doi.org/10.1007/978-981-99-5937-2>
- Jamaludin, R. B., Hamid, A. H. A., & Alias, B. S. (2023). Empowering technical and vocational education and training (TVET). *International Journal of Academic Research in Business and Social Sciences*, 13(12), 2649–2655. <https://doi.org/10.6007/IJARBSS/v13-i12/20159>
- Jin, X., Tigelaar, D., van der Want, A., & Admiraal, W. (2023). The effects of a teacher development programme in Chinese vocational education on the efficacy and professional engagement of novice teachers. *Journal of Education for Teaching*, 49(2), 252–265. <https://doi.org/10.1080/02607476.2022.2072713>
- Yan, Z., Na, M., Alam, S. S., Masukujjaman, M., & Lu, Y. X. (2022). Teacher competencies and School Improvement Specialist Coaching (SISC+) Programme in Malaysia as a model for improvement of quality education in China. *Sustainability*, 14(23), 16273. <https://doi.org/10.3390/su142316273>
- Zhang, Z., Lin, T., & Liu, S. (2022).Influencing factors of vocational teachers' professional competence: Evidence from China. *Sustainability*, 14(23), 15871.<https://doi.org/10.3390/su142315871>