

The Role of Transformational Leadership in Developing Employability Skills Among Vocational High School Students: A Career Guidance Perspective

Novia Nailatun Nufus^{1*}, Tuwoso², Hary Suswanto³

¹²³State University of Malang, East Java, Indonesia

Abstract

This study aims to examine the role of transformational leadership in developing employability skills among vocational high school students from the perspective of career guidance. A Systematic Literature Review (SLR) approach following the PRISMA framework was employed to synthesize previous studies related to transformational leadership, employability skills, vocational education, and career guidance. Literature data were collected from Google Scholar, Scopus Preview, ERIC, and DOAJ databases. A total of 89 articles were initially identified, and 23 peer-reviewed studies published between 2020 and 2026 met the inclusion criteria for final analysis. Thematic synthesis was used to identify major themes related to educational leadership, employability development, workforce readiness, and career adaptability. The findings indicate that transformational leadership contributes to supportive learning environments that encourage motivation, collaboration, adaptability, creativity, and professional confidence among vocational students. Career guidance was also found to support career planning, career adaptability, and workforce readiness. However, most reviewed studies focused on general vocational education contexts, while evidence specifically related to Fashion Design vocational students remains limited. This study contributes conceptually by integrating transformational leadership, employability skills, and career guidance perspectives within vocational education. The findings provide practical implications for school leaders, teachers, and career counselors in strengthening employability-oriented learning environments.

KEYWORDS

transformational leadership; employability skills; vocational education; career guidance.

Introduction

The rapid transformation of the global labor market in the era of Industry 4.0 has significantly changed the competencies required of vocational education graduates. In addition to technical expertise, employers increasingly demand graduates who possess strong employability skills, including communication, collaboration, problem-solving, adaptability, creativity, and professional responsibility. Employability skills are considered essential competencies that support an individual's ability to obtain, maintain, and develop a sustainable career in a highly competitive work environment. According to Yorke, (2006), employability refers to a set of achievements, skills, understandings, and personal attributes that make graduates more likely to gain employment and succeed in their chosen occupations.

Previous studies have emphasized that vocational education graduates frequently encounter challenges related to the mismatch between educational

outcomes and industry expectations, particularly regarding soft skills and workplace readiness (Ghimire et al., 2022; Zhang et al., 2024).

Furthermore, industries worldwide continue to report shortages of skilled workers who are capable of adapting to technological changes and dynamic professional environments (Addressing Shortage of Skilled Technical Workers in the USA, 2023). These conditions indicate that vocational institutions must strengthen not only technical competencies but also employability-oriented learning to prepare students for future careers.

Vocational education plays a strategic role in preparing competent human resources capable of meeting labor market demands and supporting national economic development. In Indonesia, Vocational High Schools (Sekolah Menengah Kejuruan or SMKs) are expected to produce graduates who possess both technical competencies and career readiness. However, the implementation of vocational education still faces several challenges, including curriculum relevance, industrial collaboration, and the development of students' employability skills. The growing complexity of the labor market requires vocational education institutions to adopt innovative educational approaches that integrate industry needs, technological advancement, and sustainable skill development. Yoto et al. (2024) highlighted that industry involvement significantly contributes to improving vocational curriculum relevance and strengthening students' competencies for employment. Similarly, EL-Nwasany et al. (2024) argued that Technical Education 4.0 requires vocational institutions to integrate digital literacy, innovation, and adaptive competencies into learning processes to improve graduates' competitiveness. Moreover, sustainable vocational education systems are increasingly recognized as essential for developing a future-ready workforce capable of responding to global economic transformation and labor market changes. These findings demonstrate the importance of strengthening vocational education through comprehensive educational leadership and career development approaches.

One of the critical factors influencing educational quality and student development in vocational education is transformational leadership. Transformational leadership theory proposed by Bass, (1985) explains that effective leaders are able to inspire, motivate, and empower individuals to achieve higher levels of performance and personal development. Transformational leadership refers to a leadership style that inspires, motivates, and empowers individuals to achieve organizational goals and personal growth through vision, support, and innovation. In educational settings, transformational leadership has been associated with positive learning environments, increased teacher performance, student engagement, and competency development. Fang and Shun-Chi (2023) found that transformational leadership positively influences collaboration and organizational behavior within educational institutions. In addition, transformational leadership has been identified as an important factor in preparing students for the demands of the 21st-century workforce by fostering innovation, adaptability, and professional confidence (Nemani, 2024). Effective educational leadership also contributes to career development, student motivation, and institutional improvement, particularly in vocational and higher education contexts (Afrianty et al., 2025). Therefore, transformational leadership is considered highly relevant in supporting the development of employability skills among vocational students, including vocational programs related to creative industries.

In addition to leadership, career guidance and vocational counseling play an essential role in supporting students' career readiness and employability development. Career guidance helps students understand their career interests, recognize labor market opportunities, strengthen self-efficacy, and improve career adaptability. Career construction theory proposed by Savickas, (2005) emphasizes the importance of career adaptability and self-development in helping individuals manage career transitions and professional challenges. Within vocational education, career guidance services are particularly important because they facilitate students' transition from school to work environments. Liu (2024) emphasized that structured career guidance programs significantly contribute to students' career preparation and professional development. Similarly, career adaptability has been identified as a crucial factor influencing students' confidence in making career decisions and responding to workplace changes (Alkal, 2025). Martins et al. (2024) further explained that organizational and educational support systems are important for strengthening career self-management and long-term career sustainability. In this context, integrating transformational leadership and career guidance becomes increasingly important for fostering employability skills and enhancing vocational students' career readiness in the evolving labor market.

Several previous studies have examined employability skills, transformational leadership, vocational education, and career development independently. However, limited studies have specifically explored the integration of transformational leadership and employability skills development from the perspective of career guidance within vocational high schools, including vocational programs related to creative industries. This gap is important because Fashion Design vocational students are required not only to master technical competencies but also to possess communication skills, creativity, adaptability, teamwork, and professional attitudes aligned with the needs of the creative and fashion industries. Moreover, the growing competitiveness of the fashion industry requires vocational graduates to demonstrate strong employability competencies and career preparedness to remain relevant in rapidly changing professional environments. Therefore, this study aims to analyze the role of transformational leadership in developing employability skills among Fashion Design vocational students through the perspective of career guidance. The findings of this study are expected to contribute theoretically to vocational education literature and practically to the development of educational leadership and career guidance strategies that support students' employability and workforce readiness in vocational education institutions.

Unlike previous studies that examined transformational leadership, employability skills, or career guidance separately, this study integrates these three perspectives within vocational education through a systematic literature review approach. However, limited studies have specifically explored the integration of transformational leadership and employability skills development from the perspective of career guidance within vocational high schools, including vocational programs related to creative industries.

Methods

This study employed a Systematic Literature Review (SLR) approach to examine the role of transformational leadership in developing employability skills among vocational high school students from the perspective of

career guidance. The SLR method was selected to provide a systematic, transparent, and comprehensive synthesis of existing literature related to transformational leadership, employability skills, vocational education, and career guidance. This method is considered appropriate because it enables researchers to identify research trends, theoretical relationships, and research gaps within vocational education studies. Furthermore, the review process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework to ensure consistency, transparency, and reproducibility throughout the study selection process.

A comprehensive literature search was conducted across several academic databases, including Google Scholar, Scopus Preview, ERIC, and DOAJ. The search process was carried out between January and May 2026 using combinations of keywords and Boolean operators. To ensure the relevance of the selected studies, the search strategy included the keywords “transformational leadership” OR “educational leadership,” “employability skills” OR “work readiness” OR “soft skills,” “vocational education” OR “vocational high school” OR “TVET,” and “career guidance” OR “career development” OR “career adaptability.” The search strategy used in this study is presented in [Figure 1](#).

The initial search identified 89 articles across all databases. After removing duplicate records, 78 articles remained for the screening stage. Titles and abstracts were then evaluated to assess their relevance to transformational leadership, employability skills, vocational education, and career guidance, resulting in 41 articles selected for full-text review. During the eligibility stage, full-text articles were assessed based on predefined inclusion and exclusion criteria. The inclusion criteria consisted of: (1) peer-reviewed journal articles, (2) publication within the period 2020–2026, (3) studies discussing transformational leadership, employability skills, vocational education, or career guidance, and (4) articles related to career readiness, career adaptability, or workforce preparation in educational contexts. Meanwhile, the exclusion criteria included non-journal publications (e.g., conference papers, book chapters), studies not directly related to vocational education, and articles lacking sufficient methodological information. Following this process, a total of 23 articles met all criteria and were

included in the final analysis.

The PRISMA flow of the study selection process is summarized in [Figure 2](#) to ensure transparency and consistency with the reported results.

During the eligibility assessment stage, 18 full-text articles were excluded for several reasons, including irrelevant educational context, lack of focus on vocational education, insufficient methodological explanation, non-peer-reviewed publication type, and limited discussion related to employability skills or career guidance. Duplicate records were removed manually and through reference management screening. To improve the credibility of the review process, article screening and thematic categorization were conducted systematically based on predefined inclusion criteria and cross-checked repeatedly during the analysis stage. In addition, the quality of the selected studies was evaluated based on research clarity, methodological appropriateness, relevance to vocational education, and consistency of findings. Articles with insufficient methodological transparency or limited relevance to the research objectives were excluded from the final review process.

Data extraction was conducted systematically using a structured framework to facilitate comparison across studies. Each article was coded based on publication year, country of origin, research objectives, methodological approach, and key findings related to transformational leadership, employability skills, vocational education, and career guidance. The analysis employed a thematic synthesis approach conducted through iterative stages. First, open coding was applied to identify recurring concepts and patterns across studies. Second, axial coding was used to group similar findings into broader analytical categories, such as leadership practices, employability development, career readiness, and vocational learning environments. Finally, selective coding was conducted to develop overarching themes that explained the relationship between transformational leadership and employability skills development among vocational students. This process ensured that the findings were not only descriptive but also analytically integrated, providing a comprehensive understanding of how educational leadership and career guidance contribute to students’ workforce readiness in vocational education contexts.

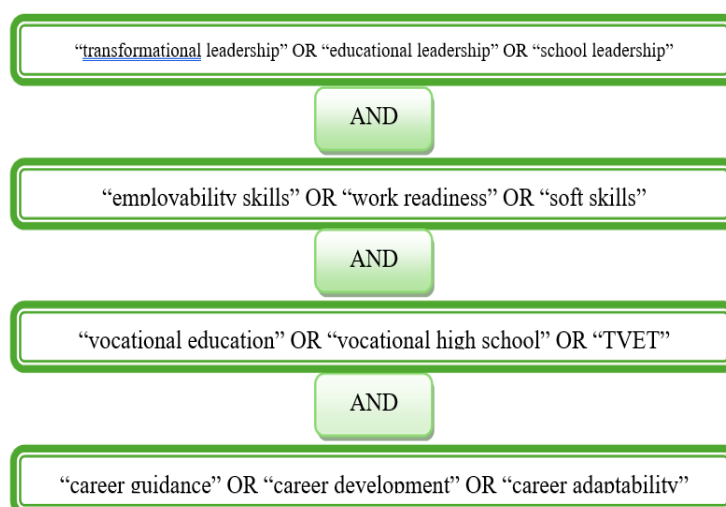


Figure 1. Search Strategy

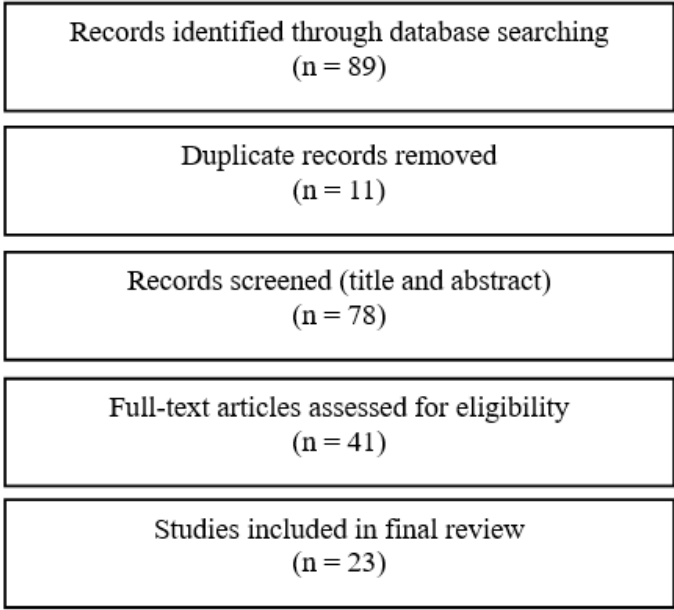


Figure 2. PRISMA Flow Diagram of Article Selection Process

Result and Discussion

Transformational Leadership in Vocational Education

The reviewed studies revealed that transformational leadership plays a significant role in improving educational quality, student engagement, and competency development within vocational education settings. Educational leaders who adopt transformational leadership practices tend to create supportive learning environments that encourage motivation, collaboration, creativity, and innovation among students (See [table 1](#)). [Fang & Shun-Chi, \(2023\)](#) found that transformational leadership positively influences organizational behavior and collaboration within educational institutions, contributing to improved learning environments and student participation. Similarly, [Nemani \(2024\)](#) emphasized that transformational leadership supports the development of future-ready students by encouraging adaptability, communication skills, and professional confidence needed in the 21st-century workforce. In vocational education, leadership practices that emphasize inspiration, support, and empowerment are considered essential for enhancing students' employability competencies and preparing them for industry challenges.

The findings also indicated that transformational leadership contributes to students' personal and professional development through supportive educational management and collaborative learning cultures. [Afrianty et al. \(2025\)](#) explained that leadership practices associated with empowerment and engagement positively influence career development and individual participation within educational institutions. In the context of vocational schools, transformational leadership helps students develop responsibility, self-confidence, teamwork, and communication skills that are highly valued in professional environments. Therefore, educational leadership is not only related to administrative effectiveness but also to the development of employability-oriented learning environments that support students' career readiness.

Employability Skills Development among Vocational

Students

Another important finding of this review concerns the increasing importance of employability skills within vocational education. The analyzed studies consistently emphasized that employers expect vocational graduates to possess both technical competencies and soft skills. Employability skills identified in the reviewed literature include communication, teamwork, adaptability, creativity, problem-solving, critical thinking, and professional ethics. [Ghimire et al. \(2022\)](#) highlighted that employability skills are considered equally important as technical skills in preparing students for employment opportunities. Similarly, [Bodescu et al., \(2024\)](#) found that adaptability, communication, and entrepreneurial competencies are essential employability skills needed in modern industries.

Several studies also reported persistent gaps between vocational graduates' competencies and labor market expectations. [Zhang et al. \(2024\)](#) identified significant differences between industry needs and graduates' professional competencies, particularly regarding communication skills, workplace adaptability, and collaborative abilities. These findings suggest that vocational education institutions must strengthen employability-oriented learning processes to reduce competency mismatches and improve graduates' workforce readiness. In addition, employability development requires learning environments that support experiential learning, industry collaboration, and student-centered educational approaches.

Vocational Education and Workforce Readiness

The reviewed literature demonstrated that vocational education institutions play a strategic role in preparing students for workforce participation and career sustainability. Effective vocational education systems integrate industrial collaboration, curriculum relevance, practical learning experiences, and competency-based education to strengthen students' employability. [Yoto et al. \(2024\)](#) emphasized that industry involvement contributes significantly to improving vocational curriculum implementation and aligning educational outcomes with labor market needs. Likewise, [EL-Nwasany et al., \(2024\)](#)

argued that Technical Education 4.0 requires vocational institutions to integrate digital competencies, innovation, and adaptive learning models to prepare students for rapidly changing work environments.

The findings further revealed that sustainable vocational education systems are increasingly necessary to support long-term workforce readiness. Iryna et al. (2025) explained that vocational education must respond to global economic transformation and sustainable development goals by strengthening students' adaptive and transferable skills. In this context, vocational education institutions are expected to develop holistic learning environments that combine technical training, soft skills development, and career preparation. Such approaches are particularly important for Fashion Design vocational students who are required to adapt to technological innovation, creative industries, and dynamic labor market conditions.

Career Guidance and Career Adaptability

The final theme identified in this review relates to the role of career guidance in supporting employability skills and career readiness among vocational students. Career guidance services help students understand career opportunities, strengthen career planning, improve self-efficacy, and develop career adaptability. Liu, (2024) explained that career guidance programs positively contribute to students' professional preparation and career development processes. Furthermore, career adaptability has been identified as a critical factor influencing students' readiness to respond to workplace changes and career transitions.

Alkal (2025) found that career adaptability significantly influences students' confidence in making career decisions and planning future professional pathways. Martins et al., (2024) further emphasized that educational and organizational support systems play important roles in strengthening career self-management and sustainable career development. These findings indicate that vocational schools should integrate career guidance services into employability development programs to support students' transition from education to employment. In the context of Fashion Design vocational education, career guidance can help students identify career opportunities within the creative industry while simultaneously developing professional competencies, adaptability, and entrepreneurial skills necessary for long-term career success.

Interpretation of Key Findings

The findings of this systematic literature review indicate that transformational leadership plays a substantial role in supporting the development of employability skills among vocational students, particularly within vocational education environments that emphasize career readiness and workforce preparation. The reviewed studies consistently demonstrate that transformational leadership contributes to positive learning environments characterized by motivation, collaboration, innovation, adaptability, and student engagement. These leadership characteristics are essential for vocational education because students are expected not only to acquire technical competencies but also to develop soft skills required in professional environments. Fang and Shun-Chi (2023) emphasized that transformational leadership positively influences collaboration and organizational behavior in educational institutions, while Nemani (2024) highlighted its contribution to preparing future-ready students capable of responding to the demands of the 21st-century workforce. These findings suggest that

transformational leadership functions as an important educational strategy for strengthening employability-oriented learning in vocational schools.

Another important finding concerns the increasing importance of employability skills within vocational education. The analyzed studies revealed that employability skills such as communication, teamwork, critical thinking, adaptability, creativity, and problem-solving are increasingly prioritized by industries alongside technical competencies. The influence of transformational leadership on employability skills may occur through several interconnected mechanisms. Transformational leaders tend to encourage teacher motivation, collaborative school culture, innovation-oriented learning environments, and stronger industry engagement. These conditions support experiential learning processes that enable vocational students to strengthen communication skills, adaptability, teamwork, creativity, and professional confidence. In addition, supportive leadership may facilitate more effective career guidance services and improve students' readiness to transition into professional environments. Ghimire et al. (2022) found that employability skills are equally important as technical skills in preparing graduates for employment opportunities. Similarly, Bodescu et al. (2024) argued that adaptability and interpersonal competencies are critical for career sustainability in modern industries. These findings indicate that vocational education institutions should integrate employability-oriented learning strategies into classroom instruction, industrial practice, and competency-based educational programs. In the context of Fashion Design vocational education, employability skills are particularly important because students are required to compete within dynamic creative industries that demand innovation, communication, entrepreneurial capabilities, and adaptability to market trends.

The review also demonstrates that career guidance significantly contributes to employability development and workforce readiness among vocational students. Career guidance services help students understand career opportunities, strengthen career planning abilities, improve self-efficacy, and develop career adaptability. Liu (2024) emphasized that structured career guidance programs positively influence students' professional preparation and career readiness. Likewise, Alkal (2025) explained that career adaptability enhances students' confidence in making career decisions and responding to workplace transitions. These findings suggest that career guidance should be integrated into vocational learning systems to strengthen students' professional readiness and long-term career sustainability. Career guidance becomes increasingly important for Fashion Design vocational students because they are required to navigate both employment opportunities and entrepreneurial pathways within the creative and fashion industries.

Comparison with Previous Studies

The findings of this study are generally consistent with previous research discussing the relationship between educational leadership, employability skills, and career readiness in vocational education contexts. Previous studies have demonstrated that transformational leadership contributes positively to student engagement, educational quality, and competency development. For example, Fang and Shun-Chi (2023) found that transformational leadership improves organizational collaboration and educational effectiveness, while Afrianty et al. (2025) highlighted the role of leadership in strengthening career development and engagement. This study extends previous findings by specifically emphasizing the integration of transformational leadership and career guidance within vocational education

settings, particularly in Fashion Design programs.

The findings are also aligned with studies emphasizing the importance of employability skills in vocational education. Ghimire et al. (2022) and Zhang et al. (2024) identified persistent gaps between graduate competencies and industry expectations, particularly regarding soft skills and workplace adaptability. Similarly, EL-Nwasany et al. (2024) argued that vocational education institutions must adapt to industrial transformation by integrating innovative and competency-based learning approaches. However, while previous studies often examined employability skills or leadership separately, this review highlights the interconnected relationship between transformational leadership, employability skills, vocational education, and career guidance. This integrated perspective represents an important contribution to vocational education literature because it emphasizes the need for holistic educational approaches that combine leadership practices, career development, and employability-oriented learning environments.

Limitations and Cautions

Despite providing important insights, this study has several limitations that should be considered when interpreting the findings. First, the study relied exclusively on secondary data obtained from journal articles, which may limit the generalizability of the findings across broader vocational education contexts. The conclusions of this review are therefore dependent on the quality, scope, and methodological diversity of the selected studies. Second, the review focused only on articles published between 2020 and 2026, potentially excluding earlier foundational studies related to transformational leadership and employability skills development. Third, the selected studies originated from different countries and educational systems, which may result in contextual differences regarding vocational education practices, leadership implementation, and career guidance services. Consequently, the findings should be interpreted carefully within specific educational and cultural contexts.

Another limitation concerns the absence of direct empirical investigation involving vocational students, teachers, or school leaders in Fashion Design vocational programs. As a result, the findings primarily provide

Table 1. Research Synthesis of Selected Studies

No	Authors & Year	Research Focus	Method	Main Findings	Relevance to the Study	Educational Context	Fashion Design Relevance
1	Fang & Shun-Chi (2023)	Transformational leadership among school teachers	Quantitative survey	Transformational leadership improves positive behavior and teacher collaboration	Strengthens transformational leadership theory in education	Secondary school education	Indirect
2	Nemani (2024)	Leadership and 21st-century workforce readiness	Literature review	Transformational leadership supports students' workforce readiness development	Supports the relationship between leadership and employability skills	General education / workforce preparation	Indirect
3	Afrianty et al. (2025)	Leadership and career development	Quantitative	Leadership enhances engagement and career development	Supports the career guidance perspective	Higher vocational education	Indirect
4	Bambang & Hsin-Hung, (2022)	Leadership and entrepreneurial spirit among students	Structural analysis	Motivation and leadership improve students' competencies	Supports vocational students' soft skills development	Higher education students	Indirect
5	Ghimire et al. (2022)	Employability skills in vocational education	Mixed methods	Technical skills and employability skills are equally important in the workplace	Relevant to vocational students' employability skills	Vocational education	Moderate
6	Hisa et al., (2024)	Youth leadership programs and employability skills	Quantitative	Leadership programs improve perceptions of employability skills	Supports the influence of leadership on employability	Youth leadership programs	Indirect
7	Wen et al., (2025)	Higher education reform and employability	Quantitative modelling	Educational management reform improves student employability	Supports the importance of school management for workforce readiness	Higher education management	Indirect
8	(Y. Yang, 2025)	Factors influencing student employability	Survey	Self-development and learning environments affect employability	Relevant to vocational students' employability development	Undergraduate education	Indirect

9	Grau-del-Valle et al., (2025)	Employability development systematic review	SLR	Training and education improve employability among vulnerable groups	Supports the importance of vocational education in workforce readiness	Employability training programs	Indirect
10	Bodescu et al. (2024)	Skills for employment and entrepreneurship	Quantitative	Soft skills and adaptability are essential in modern workplaces	Supports employability skills indicators	Employment and entrepreneurship education	Indirect
11	Zhang et al. (2024)	Competency gaps between graduates and industry	Survey	There are gaps between graduate competencies and industry needs	Strengthens the urgency of employability skills in vocational education	Engineering and construction education	Indirect
12	He & Tsao, (2025)	Teacher competence in vocational education	Educational research	Effective learning strategies improve vocational education competencies	Supports the vocational education context	Vocational teacher education	Moderate
13	Yoto et al., (2024)	Industry involvement in vocational curriculum	Qualitative	Industry collaboration strengthens vocational education quality	Supports vocational students' workforce readiness	Vocational curriculum implementation	Moderate
14	EL-Nwasany et al. (2024)	Technical Education 4.0	Conceptual study	Technical education must adapt to industrial transformation	Relevant to 21st-century employability	Technical and vocational education	Moderate
15	Iryna et al., (2025)	Sustainable vocational education	Comparative study	Sustainable vocational education improves workforce readiness	Supports sustainable employability development	Sustainable vocational education	Moderate
16	Svetlana & Veneta, (2026)	School management and dual education	Educational analysis	School management plays a significant role in developing skill ecosystems	Supports the role of educational leadership	Dual vocational education	Moderate
17	Addressing shortage of skilled technical workers (2023)	Skilled workforce demand	Policy analysis	Industries require workers with strong employability skills	Strengthens the urgency of the study	Workforce and technical education	Indirect
18	Liu (2024)	Career guidance programs	Educational practice	Career guidance programs improve students' career readiness	Highly relevant to the career guidance perspective	Career guidance in education	Moderate
19	Martins et al. (2024)	Career self-management	Systematic literature review	Organizational support improves career development	Supports vocational students' career development	Career self-management education	Indirect
20	Alkal (2025)	Career adaptability and self-efficacy	Longitudinal study	Career adaptability improves confidence in career decision-making	Relevant to vocational guidance	Career adaptability studies	Indirect
21	Gao et al., (2025)	Career adaptability and mental health	Quantitative	Career adaptability positively influences future readiness	Supports employability development	Graduate employability and mental health	Indirect
22	P. Yang, (2025)	Career identity and proactive development	Behavioral study	Career identity influences self-development	Relevant to career guidance	Career identity development	Indirect

23	Zyberaj et al., (2022)	Sustainable careers and adaptability	Quantitative	Psychological capital and adaptability strengthen sustainable careers	Supports long-term employability	Sustainable career development	Indirect
----	------------------------	--------------------------------------	--------------	---	----------------------------------	--------------------------------	----------

conceptual and theoretical insights rather than context-specific empirical evidence. In addition, the review mainly focused on educational leadership and employability development without deeply exploring related variables such as industrial internship quality, entrepreneurial learning, digital competencies, or green vocational education practices. Therefore, caution should be exercised in generalizing these findings to all vocational education sectors or educational environments. Therefore, the proposed relationship between transformational leadership, career guidance, and employability skills should be interpreted as conceptual rather than causal evidence. Further empirical studies involving Fashion Design vocational schools are necessary to validate these relationships within specific vocational contexts.

Recommendations for Future Research

Future research is recommended to conduct empirical studies examining the direct influence of transformational leadership on employability skills among vocational students using quantitative, qualitative, or mixed-method approaches. Empirical investigations involving vocational teachers, school leaders, career counselors, and students would provide more comprehensive evidence regarding how transformational leadership practices influence career readiness and workforce preparation in vocational education contexts. Future studies may also compare different vocational fields, such as Fashion Design, engineering, hospitality, or business education, to identify sector-specific employability competencies and leadership needs.

In addition, future research should explore the integration of career guidance, industrial collaboration, and digital employability competencies within vocational learning environments. Given the rapid development of Industry 4.0 and digital transformation, vocational education institutions increasingly require innovative approaches that integrate technological literacy, entrepreneurship, sustainability, and career adaptability into employability development programs. Future studies may also investigate the implementation of green vocational education and sustainable employability competencies in response to global economic and environmental challenges. Furthermore, longitudinal studies examining vocational graduates' career trajectories and workforce adaptation would provide valuable insights into the long-term effectiveness of transformational leadership and career guidance practices in supporting employability development and career sustainability.

Conclusion

This study conceptually highlights the potential contribution of transformational leadership and career guidance in supporting employability skills development within vocational education contexts. The reviewed studies suggest that supportive educational leadership, collaborative learning environments, and career guidance services may strengthen vocational students' workforce readiness and professional adaptability. However, because most reviewed studies were

conducted in general vocational education settings, further empirical research is required to validate these relationships specifically within Fashion Design vocational programs.

The study also highlights the strategic role of vocational education institutions in strengthening workforce readiness through industry collaboration, competency-based learning, and employability-oriented educational practices. In addition, career guidance was identified as an important component in supporting students' career planning, career adaptability, and professional development. The integration of transformational leadership and career guidance can therefore strengthen vocational students' employability development and support their transition from education to employment. These findings suggest that vocational schools should implement holistic educational approaches that combine leadership development, employability-oriented learning, industrial collaboration, and career guidance services to improve graduate competitiveness and career sustainability.

Theoretical contributions of this study include expanding the understanding of the interconnected relationship between transformational leadership, employability skills, vocational education, and career guidance. Practically, the findings provide implications for school leaders, teachers, career counselors, and policymakers in designing educational strategies that support workforce readiness and sustainable career development among vocational students. Despite its limitations, this study provides a conceptual foundation for future empirical research on employability development in vocational education. Future studies are encouraged to investigate the direct implementation of transformational leadership and career guidance practices in vocational schools and to explore emerging issues such as digital employability competencies, sustainable vocational education, and industry-based learning models in response to ongoing industrial transformation and global workforce demands.

Author contributions

The author contributed substantially to the conception and design of the study, literature review process, data collection, data analysis, interpretation of findings, and manuscript preparation. The author also conducted the systematic literature review, synthesized the research findings, developed the discussion and conclusions, and finalized the manuscript for publication. All aspects of the study were completed solely by the author, and the author has approved the final version of the manuscript for submission.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. The study was conducted independently by the author.

Acknowledgements

The author would like to express sincere gratitude to all scholars and researchers whose studies contributed to the completion of this systematic literature review. Appreciation is also extended to colleagues and academic peers who provided valuable insights and support during the research and writing process. The author is grateful for the academic resources and references that facilitated the development of this study on transformational leadership, employability skills,

vocational education, and career guidance.

Conflict of interest

The author declares that there are no conflicts of interest regarding the publication of this article. The research was conducted independently without any financial, commercial, or institutional influence that could affect the objectivity or integrity of the study.

References

- Addressing Shortage of Skilled Technical Workers in the USA. (2023). Addressing shortage of skilled technical workers in the USA: A glimpse for training service providers. *Future Business Journal*, 9(1), 50. <https://doi.org/10.1186/s43093-023-00228-x>
- Afrianty, T. W., Utami, H. N., Erlina, E. S., Fauzan Rismanda, R. P., & Tjandra, D. W. (2025). Linking servant leadership and career development to employee voice behaviour through engagement and commitment: Evidence from state polytechnics in East Java, Indonesia. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2460628>
- Alkal, A. (2025). Relationships among resilience, career adaptability and career decision self-efficacy in university students: A two-wave longitudinal mediation study. *BMC Psychology*, 13, 1–11. <https://doi.org/10.1186/s40359-025-03456-8>
- Bambang, B. W., & Hsin-Hung, W. (2022). Investigating the structural effect of achievement motivation and achievement on leadership and entrepreneurial spirit of students in higher education. *Administrative Sciences*, 12(3), 99. <https://doi.org/10.3390/admsci12030099>
- Bass, B. M. (1985). *Leadership and Performance Beyond Expectations*. Free Press.
- Bodescu, D., Sîrghiea, A., Rălcăţu, R. N., Chiru, C., Donoşă, D., & Robu, A. (2024). Relevant skills for employment and entrepreneurship in the agri-food sector. *Sustainability*, 16(2), 787. <https://doi.org/10.3390/su16020787>
- EL-Nwasany, R., Bakr, A. F., & Fathi, A. A. (2024). A sustainable vision for technical education 4.0 of post COVID-19. *Sustainability*, 16(21), 9355. <https://doi.org/10.3390/su16219355>
- Fang, Z., & Shun-Chi, Y. (2023). Cross-level influence of group-focused transformational leadership on organizational citizenship behavior among Chinese secondary school teachers. *Behavioral Sciences*, 13(10), 848. <https://doi.org/10.3390/bs13100848>
- Gao, L., Li, Y., & Pang, W. (2025). Career adaptability and graduates' mental health: The mediating role of occupational future time perspective in higher education in China. *BMC Psychology*, 13, 1–15. <https://doi.org/10.1186/s40359-025-02433-5>
- Ghimire, R. P., D Hashini, G. D., Maredia, K., Joshi, N. P., & Ebner, P. (2022). Ready for a career in the agriculture sector in Egypt? Perceptions of students, faculty, and employers on the value of essential technical and employable skills. *Education Sciences*, 12(10), 713. <https://doi.org/10.3390/educsci12100713>
- Grau-del-Valle, C., Llinares-Insa, L., García-Raga, L., & Roca-Campos, E. (2025). Successful educational actions for sustainable development: A systematic review of training for employability development of vulnerable groups. *Education Sciences*, 15(2), 247. <https://doi.org/10.3390/educsci15020247>
- He, F., & Tsao, H. J. (2025). Analyzing the effectiveness of teaching methods and strategies in developing teacher competence in vocational education. *Journal of Pedagogical Research*, 9(3), 156–170. <https://doi.org/10.3390/JPR.202528505>
- Hisa, A., Mohiddin, F., & Susanto, H. (2024). The impact of youth leadership program on perceived employability skills: Evidence from Brunei Darussalam. *Asian Academy of Management Journal*, 29(2), 133–164. <https://doi.org/10.21315/aamj2024.29.2.6>
- Iryna, S., Lilia, B., Khrystyna, P., Olena, I., & Ihor, C. (2025). Redesigning sustainable vocational education systems to respond to global economic trends and labor market demands: Evidence from EU countries on SDGs. *Sustainability*, 17(21), 9530. <https://doi.org/10.3390/su17219530>
- Liu, W. (2024). Exploration and practice of college students' career guidance program in the perspective of green China. *Applied Mathematics and Nonlinear Sciences*, 9(1). <https://doi.org/10.2478/amns.2023.2.01512>
- Martins, M., Maria do Céu Taveira, Magalhães, F., & Silva, A. D. (2024). Organizational support in career self-management: A systematic literature review. *Administrative Sciences*, 14(11), 286. <https://doi.org/10.3390/admsci14110286>
- Nemani, S. (2024). Preparing future-ready students: The role of transformational leadership in equipping students for the 21st-century workforce. *Journal for the Education of Gifted Young Scientists*, 12(4), 181–192. <https://doi.org/10.17478/jegys.1552021>
- Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown & R. W. Lent (Eds.), *Career Development and Counseling: Putting Theory and Research to Work* (pp. 42–70). John Wiley & Sons.
- Svetlana, A., & Veneta, K. (2026). Skills ecosystem and the role of school management for sustainable development of dual education. *Societies*, 16(1), 20. <https://doi.org/10.3390/soc16010020>
- Wen, L., Zhao, M., & Li, Z. (2025). Statistical modelling and quantitative assessment of management reforms in higher education on the enhancement of student employability. *Applied Mathematics and Nonlinear Sciences*, 10(1). <https://doi.org/10.2478/amns-2025-1005>
- Yang, P. (2025). Striving for career establishment: Young adults' proactive development under career identity and passion dynamics. *Behavioral Sciences*, 15(10), 1402. <https://doi.org/10.3390/bs15101402>
- Yang, Y. (2025). Factors affecting the employability of final-year undergraduate students in Kunming, China. *AU E-Journal of Interdisciplinary Research*, 10(2), 1–9. <https://doi.org/10.14456/au-ejir.2025.16>
- Yorke, M. (2006). *Employability in Higher Education: What It Is - What It Is Not*. Higher Education Academy.
- Yoto, Marsono, Suyetno, A., Puteri Ardista, N. M., Romadin, A., & Paryono. (2024). The role of industry to unlock the potential of the Merdeka Curriculum for vocational school. *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186X.2024.2335820>
- Zhang, P., Ma, S.-G., Sun, Y., & Zhao, Y.-N. (2024). Investigating the gaps between engineering graduates and quantity surveyors of construction enterprises. *Sustainability*, 16(7), 2984. <https://doi.org/10.3390/su16072984>
- Zyberaj, J., Seibel, S., Schowalter, A. F., Pötz, L., Richter-Killenberg, S., & Volmer, J. (2022). Developing sustainable careers during a pandemic: The role of psychological capital and career adaptability. *Sustainability*, 14(5), 3105. <https://doi.org/10.3390/su14053105>