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The Role of Internship Experience, Soft Skills, and Self-Efficacy in Enhancing Vocational Readiness: A Systematic Literature Review

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Abstract

This study presents a Systematic Literature Review (SLR) examining the combined influence of internship experiences, soft skills, and self-efficacy on vocational readiness in vocational education and training (TVET) contexts. Drawing upon 25 peer-reviewed articles published between 2019 and 2025, the review highlights the interconnected nature of these three factors in shaping students' preparedness for the labor market. The findings reveal that internships play a crucial role in bridging the gap between school-based learning and industry requirements, equipping students with practical competencies and professional exposure. Soft skills, including communication, teamwork, problem-solving, and adaptability, are identified as essential for employability and workplace integration. Self-efficacy emerges as a psychological foundation that fosters motivation, resilience, and confidence, enabling students to succeed in both academic and professional settings. Importantly, the review underscores the synergistic relationship between these three dimensions, suggesting that integrative approaches are most effective in promoting holistic vocational readiness. Practical implications include the need for curriculum design that embeds structured internships, systematic soft skills training, and targeted interventions to enhance self-efficacy. The study also identifies limitations in research scope and proposes future studies that employ cross-cultural perspectives and longitudinal designs.
Keywords: *Internship, Soft Skills, Self-Efficacy*

Introduction

The importance of practical experience in bridging the gap between school-based learning and the realities of industry needs is supported by various contemporary studies. This synthesis explores how internships contribute to the competencies required for successful employment and align educational outcomes with industry expectations (Indrawati et al., 2022). Internships serve as pivotal mechanisms that align theoretical knowledge acquired in vocational high schools with practical skills demanded by employers (Ilomäki et al., 2022). Practicum learning enhances students' outcomes by simulating workplace conditions and facilitating experiential learning opportunities that resonate with industry demands (Moschion & Polidano, 2025). Teachers value workplace learning as it fosters graduate competencies closely linked to employability (Liu et al., 2020).

Workplace learning significantly enhances students' professional networks and job market acumen (Vos et al., 2023). Internships expose students to potential employers and industry networks, ultimately leading to better job placements and educational pathways (Rachman et al., 2024). The integration of workplace learning into vocational education curricula underlines the importance of both academic and practical experiences (Øgård et al., 2025). Effective workplace learning requires active participation of students and ongoing support from educators

who must adapt to changing industry requirements (Esmond, 2020). This dynamic interplay demonstrates the need for continuous professional development within vocational teaching frameworks (Nykänen et al., 2022).

Workplace performance assessment in vocational education requires comprehensive mechanisms that can accurately reflect students' practical skills (Johansson, 2021). Assessments must be contextualized within specific industry settings to ensure authenticity and relevance (Hastutiningsih et al., 2024). Teachers are expected to engage with workplace environments to develop assessments aligned with industry standards (Sauli et al., 2021). Educational institutions must also incorporate human resource strategies that align curricula with sector-specific demands, equipping students for the workforce through relevant vocational experiences (Hardiyanto et al., 2022). Coordinated efforts such as thematic assignments in Norwegian vocational education enhance students' understanding of vocational concepts and readiness for employment (Kusuma & Yoto, 2024).

Boundary crossing between learning environments is crucial for holistic student development in vocational education systems (Rahayu et al., 2024). Reconceptualizing the relationship between school and industry facilitates smoother transitions and integrated learning processes (Sönmez et al., 2023). Workshop methodologies promoting collaboration between educational institutions and workplaces foster expansive learning and improved workplace experiences (Bosch & Rice, 2024). Productive dialogue between vocational educators and industry stakeholders ensures learning objectives remain relevant (Maulidina & Wijanarka, 2023). Learners' perspectives further highlight the importance of tailored educational pathways that reflect industry practices and feedback mechanisms (Indrawati et al., 2023).

Learners' perspectives further highlight the importance of tailored educational pathways that reflect industry practices and feedback mechanisms (Indrawati et al., 2023). However, despite these positive developments, the integration of technology in vocational education continues to face notable challenges. Studies indicate that many vocational schools struggle with limited digital infrastructure, inadequate availability of industry-standard devices, and inconsistent internet connectivity, particularly in rural and under-resourced regions (Hastutiningsih et al., 2024). Teacher-related barriers also persist, including low digital literacy, limited pedagogical readiness to adopt emerging technologies, and insufficient professional development opportunities (Kholifah et al., 2023). Furthermore, the misalignment between school technology provisions and rapidly evolving industrial tools often results in a gap between classroom learning and workplace expectations (Sulistiobudi & Kadiyono, 2023). These obstacles collectively hinder the optimal use of technology to support experiential, industry-aligned learning processes.

Technology integration is increasingly pertinent in vocational learning, with Virtual Reality (VR) providing immersive learning opportunities for high-demand industries (Hartati et al., 2022). Collaborative curriculum design involving educators and industry representatives plays a vital role in preparing students for the job market (Thianthai & Sutamchai, 2022). Involving students in competency-based assessments fosters real-life skills aligned with workplace expectations (Gong et al., 2023). Experiential internships significantly contribute to entrepreneurial skills through hands-on learning opportunities that enhance critical thinking and problem-solving abilities (Casalone & Baici, 2023). This reflects the necessity for vocational education to balance technical training with the cultivation of interpersonal and transferable skills (Tibi, 2023).

Soft skills, including communication, teamwork, problem-solving, and adaptability, are increasingly recognized as essential components of vocational readiness (Sulistiobudi & Kadiyono, 2023). Empirical studies and systematic reviews highlight the strong connection between soft skill acquisition and employability outcomes (Rashidi et al., 2022). Students often

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lack awareness of their own soft skills, underscoring the need for self-assessment instruments to empower them in articulating competencies effectively (Rahayu et al., 2024). Collaboration skills are critical, particularly in ICT-related vocational programs where technical focus often overshadows interpersonal development (Kusuma & Yoto, 2024). Transferable skills such as teamwork and communication significantly influence job retention and career advancement (Sönmez et al., 2023).

Curricula that integrate both theoretical knowledge and soft skills such as adaptability and critical thinking are crucial for preparing graduates for contemporary workforce demands (Bosch & Rice, 2024). Employers increasingly emphasize specific soft skills, making their integration into vocational education indispensable (Maulidina & Wijanarka, 2023). Soft skill mastery reduces unemployment risks by equipping students with competencies beyond technical expertise (Indrawati et al., 2023). Project-based learning fosters collaboration, enhancing both technical and soft skills simultaneously (Hartati et al., 2022). Communication, adaptability, and teamwork remain fundamental for future careers and must be embedded in vocational programs (Thianthai & Sutamchai, 2022).

Cooperative learning frameworks involving industry collaboration ensure curricula encapsulate the competencies demanded in the workforce (Gong et al., 2023). Partnerships between educational institutions and employers strengthen vocational training and ensure students are equipped with both hard and soft skills necessary for employability (Casalone & Baici, 2023). These findings collectively emphasize that vocational education must evolve to incorporate holistic strategies integrating internships, soft skills, and self-efficacy to ensure students are fully prepared for the complexities of the modern labor market (Tibi, 2023).

Although numerous studies have examined the role of internship programs, soft skills, and self-efficacy in shaping students' vocational readiness, most of them tend to address these aspects in isolation or only partially. Comprehensive investigations that integrate all three factors remain limited, particularly in the context of vocational education for Heating, Ventilation, and Air Conditioning (HVAC) programs. Furthermore, much of the existing research has been conducted in local settings, with relatively few cross-country or cross-disciplinary comparisons. This indicates a significant gap that calls for a systematic review to holistically explore the interconnections among internship experience, soft skills, and self-efficacy in enhancing vocational readiness of vocational high school students to better meet the demands of the modern workforce.

The novelty of this study lies in its comprehensive approach to synthesizing research on the interplay of internship experience, soft skills, and self-efficacy in shaping vocational readiness, particularly within the context of vocational education programs such as Heating, Ventilation, and Air Conditioning (HVAC). Unlike previous studies that often examined these variables separately or in limited scopes, this systematic literature review integrates the three factors into a holistic framework. By doing so, it not only highlights their individual contributions but also uncovers their synergistic effects in preparing students for the dynamic demands of the modern labor market. This integrated perspective provides fresh insights for curriculum development, policy formulation, and practical interventions aimed at strengthening vocational education outcomes.

Based on this background, the research problems addressed in this study are as follows: (1) What is the role of internship experience in enhancing students' vocational readiness? (2) How do soft skills contribute to vocational readiness? (3) In what ways does self-efficacy support vocational readiness? (4) How do these three factors collectively shape holistic vocational readiness? Accordingly, the objectives of this study are to systematically review the existing literature on the influence of internship, soft skills, and self-efficacy on vocational readiness, to

identify major findings and patterns, and to map out research gaps in order to provide both theoretical contributions and practical implications for vocational education, particularly in HVAC programs

Method

This study employed a Systematic Literature Review (SLR) approach, guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework. The review process was carried out systematically through four main stages: identification, screening, eligibility, and inclusion. The purpose of adopting this approach was to ensure a comprehensive, transparent, and replicable synthesis of existing research related to the role of internship experience, soft skills, and self-efficacy in enhancing vocational readiness. In the identification stage, articles were collected from several major academic databases, including Scopus, Web of Science, ERIC, ProQuest, and Google Scholar. Keywords such as “internship”, “workplace learning”, “soft skills”, “self-efficacy”, and “vocational readiness” were used in various combinations. This initial search resulted in 350 articles, which represented the overall research pool before the refinement process began.

The screening stage involved eliminating duplicates and irrelevant studies. A total of 70 duplicate articles were removed, followed by 120 articles excluded after reviewing their titles and abstracts due to a lack of relevance to the research objectives. This left 200 articles for further consideration. During the eligibility stage, articles were assessed against specific inclusion criteria: (a) published between 2019 and 2025, (b) focused on vocational education or vocational high schools, and (c) addressed at least one of the key variables internship, soft skills, or self-efficacy. As a result, 55 articles were excluded, leaving 80 articles that met the eligibility standards. In the inclusion stage, a final selection process was conducted, and 25 articles were retained for in-depth analysis. These articles were then examined using thematic analysis and narrative synthesis to identify patterns, relationships, and research gaps. The overall process of identification and selection is illustrated in the PRISMA diagram (see Table 1), which visually demonstrates the narrowing down of the literature from an initial 350 studies to 25 studies that were ultimately analyzed in this review.

Table 1. PRISMA diagram for the Systematic Literature Review (SLR) process

Identification	350 articles	70 duplicate articles removed
Screening	200 articles	120 articles excluded
Eligibility	80 articles	55 articles excluded
Inclusion	25 articles analyzed	

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Results

Characteristics of Selected Studies

This systematic literature review analyzed 25 peer-reviewed articles published between 2019 and 2025 that addressed the role of internship experience, soft skills, and self-efficacy in vocational readiness. The selected studies originated from diverse contexts, including vocational high schools (SMK), higher vocational institutions, and international TVET settings. These articles employed quantitative, qualitative, and mixed-method approaches, as well as tracer studies, to provide a comprehensive understanding of the topic. The following table presents the characteristics of the selected studies, including the authors, year of publication, article title, and their linearity with the topic. This summary highlights the scope and focus of each study in relation to vocational readiness.

Table 2.Characteristics of Selected Studies

No	Author(s), Year	Title of Article	Linearity with Topic
1	Arthur & Koomson, 2023	Is student internship still beneficial today? The views of multi-parties in Ghana	Internship as a medium to strengthen soft skills and self-efficacy in vocational readiness
2	Basir et al., 2022	Soft skills and graduate employability: evidence from Malaysian tracer study	Soft skills and work experience (internship) influence employability
3	Chang & Isa, 2024	Exploring the influence of teacher self-efficacy on teaching quality in higher vocational education	Teacher self-efficacy impacts teaching quality and students' vocational readiness
4	Chavarría et al., 2020	Development of vocational maturity in university students with disabilities	Self-efficacy and inclusive soft skills support vocational readiness
5	Cipta & Wahyuni, 2024	Productive competence, internship, and family support on student work readiness mediated by self-efficacy	Linkage between internship, family support, and self-efficacy in work readiness
6	Fu et al., 2023	The relationship between student self-efficacy and learning engagement at Chinese vocational colleges during internship	Self-efficacy enhances engagement and readiness during internship
7	Hu, 2025	Big five personality traits and employability: the mediating role of internship attitudes	Internship attitudes and self-efficacy mediate employability
8	Huang et al., 2022	The employability and career development of finance and trade college graduates	Internship and soft skills improve employability and readiness
9	Kasim et al., 2024	Exploring problem-solving and critical thinking skills of TVET students: an SME employer perspective	Soft skills (problem solving, critical thinking) as key factors of vocational readiness
10	Omar et al., 2023	Employability skills and career development self-efficacy as indicators for workforce success	Career self-efficacy and employability skills as

			indicators of vocational readiness
11	Papp et al., 2023	Soft skills of business students in relation to higher education internships	Internship builds soft skills relevant to employability
12	Setiyo et al., 2019	Cognitive apprenticeship improves self efficacy at Aviation Polytechnic of Surabaya	Cognitive apprenticeship enhances self-efficacy in vocational contexts
13	Tavener et al., 2021	Mixed method evaluation of a graduate student teaching and learning internship program	Internship increases self-efficacy and vocational readiness
14	Andriani et al., 2022	Relationship between self-efficacy, emotional intelligence, and parental support with learning motivation	Self-efficacy improves motivation linked to vocational readiness
15	Chuang et al., 2022	The influence of motivation, self-efficacy, and fear of failure on the career adaptability of vocational school students	Self-efficacy directly relates to career adaptability
16	Hui, 2024	Cognitive load as a mediator in self-efficacy and English learning motivation among vocational college students	Self-efficacy affects motivation and readiness via cognitive processes
17	Jiang, 2024	The mediating role of emotional intelligence between self-efficacy and resilience	Self-efficacy enhances resilience in vocational students
18	Kholifah et al., 2023	The role of teacher self-efficacy on the instructional quality in 21st century vocational education	Teacher efficacy improves instructional quality and student readiness
19	Saputro et al., 2023	How to improve career construction for civil engineering students?	Social support and self-efficacy enhance career readiness
20	Yang et al., 2024	Building capacity for sustainability education: vocational teachers' knowledge, readiness, and self-efficacy	Teacher self-efficacy contributes to student readiness
21	Yuliyanto et al., 2024	Understanding vocational school students' work readiness: the synergistic role of fieldwork practice and self-efficacy	Internship and self-efficacy synergistically improve readiness
22	Ardiyanto, 2025	Work readiness through self-efficacy, work motivation, soft skills, and industrial practice	Self-efficacy, soft skills, and internship contribute to readiness

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23	Indramayanti et al., 2024	The role of student engagement in Teaching Factory implementation on work readiness	Teaching Factory enhances soft skills and vocational readiness
24	Indrawati et al., 2023	Influence of work motivation, interpersonal skills, and knowledge construction on work readiness	Work motivation and interpersonal skills improve readiness
25	Kamaruzaman et al., 2025	Future generic skills for TVET graduates	Soft skills and generic competencies essential for readiness

Key Findings

The first key finding emphasizes the role of internship experiences in enhancing vocational readiness. Evidence from multiple studies shows that internships provide students with opportunities to apply classroom knowledge in real-world settings, thereby strengthening technical competencies. Internships also serve as bridges between school and industry, allowing students to understand workplace culture, develop professional networks, and gain practical skills directly relevant to employment. As a result, internships are consistently highlighted as a decisive factor in preparing students for smoother transitions into the workforce. The second key finding highlights the importance of soft skills in vocational education. Research consistently demonstrates that competencies such as communication, teamwork, adaptability, and problem-solving are critical complements to technical training. These skills are essential for enabling students to integrate effectively into dynamic labor markets and navigate diverse workplace demands. Studies further suggest that employers place equal, if not greater, value on soft skills when evaluating graduates' readiness for employment, underscoring the need for vocational curricula to integrate these skills systematically.

The third key finding relates to self-efficacy as a central psychological construct in vocational readiness. High levels of self-efficacy contribute to students' motivation, resilience, and confidence in tackling both academic and workplace challenges. Self-efficacy has also been linked to stronger learning engagement during internships, greater adaptability to career changes, and higher performance outcomes. These findings reinforce the notion that building students' belief in their own capabilities is essential to equipping them with the mental and emotional readiness required in modern vocational contexts. The fourth key finding illustrates the synergistic relationship between internships, soft skills, and self-efficacy. Rather than operating independently, these three factors interact to shape holistic vocational readiness. Internships offer contexts in which students can strengthen both technical competencies and soft skills, while positive internship experiences also enhance self-efficacy. Similarly, self-efficacy empowers students to maximize the benefits of internships and soft skills development. This synergy suggests that integrative approaches combining practical training, soft skills cultivation, and interventions to foster self-efficacy are the most effective strategies for aligning vocational education outcomes with industry demands.

Discussion

The Role of Internship Experience in Vocational Readiness

The role of internships and workplace learning in enhancing vocational readiness among students in vocational high schools or Technical and Vocational Education and Training (TVET) institutions has gained increasing attention in empirical research. A synthesis of peer-reviewed articles from 2018 to 2025 provides insights into the impact of internships on technical skill

acquisition, employability, and alignment with industry standards (Wulandari, 2024). A study in maritime education highlights that internship experiences substantially enhance students' readiness for industry. Employers expressed high levels of satisfaction with interns, affirming that students emerged well-prepared for professional roles. Vocational students also reported significant personal and professional growth attributed to the hands-on experiences gained during internships. Longitudinal data confirmed that such initiatives yield sustained career advancement and job satisfaction, emphasizing the enduring benefits of internships (Wulandari, 2024).

The dual education model prevalent in European Union countries represents an effective approach to combining structured workplace experience with formal education. Findings suggest that this model supports students' transitions into the labor market and improves career prospects. Collaboration between educational institutions and businesses fosters mutual accountability, leading to continuous enhancement of training standards aligned with industry demands (Кукса, 2024). The perspectives of Small and Medium Enterprises (SMEs) that hire TVET graduates emphasize the importance of problem-solving and critical thinking skills. While internships provide valuable exposure, students often require significant supervision and demonstrate limited self-confidence in decision-making. These findings reveal a gap between TVET curricula and industry needs, underscoring the importance of stronger connections between academia and industry to better prepare students for employment (Kasim et al., 2024).

Entrepreneurship education has also been shown to benefit from internship programs. Research demonstrates that internships play a pivotal role in shaping students' entrepreneurial intentions. Enhanced cooperation between vocational schools and industries, particularly through integrating business education with internship opportunities, contributes significantly to students' preparedness for entrepreneurial endeavors (Yuliani et al., 2025). Personality traits are further identified as influential factors in shaping attitudes toward internships, subsequently affecting employability. Positive internship attitudes are associated with better integration into the workforce, indicating the importance of educational institutions adopting frameworks to foster constructive perspectives toward workplace learning (Hu, 2025). The strengthening of practical teaching approaches within vocational education also leads to improved employability outcomes. Aligning practical experiences with theoretical foundations equips students with the skills required by employers and ensures educational outcomes are responsive to labor market demands (Wei, 2024).

Longitudinal evidence reinforces the importance of internships in shaping long-term career outcomes. Data indicate that internship experiences during secondary education correlate positively with employment prospects up to five years after graduation, affirming that internships constitute a critical component of career trajectories (Neyt et al., 2022). International internships provide additional benefits by enhancing both technical and soft skills, while also equipping students with intercultural competencies. Participation in such programs prepares vocational students for integration into a globalized workforce (Iwacewicz-Orłowska, 2022). Guidance in career planning and skill development is identified as essential for maximizing the value of internship programs. Research reveals that many students enter the labor market without clear career plans, highlighting the need for vocational education to integrate hands-on experiences aligned with student aspirations and labor market realities (Mangaliag, 2025).

Collaborations between educational institutions and industries contribute to more effective vocational training. Evidence from partnerships between institutions in Bekasi and Japanese industries demonstrates that industry-specific curricula and internship opportunities foster technical expertise, adaptability, and cross-cultural skills among vocational students (Fitria, 2025). The relevance of vocational education and training (VET) to employment outcomes

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is also examined. Findings suggest that aligning internship opportunities with educational programs is critical to improving job readiness, particularly for groups that may face disadvantages in the labor market. Calls have been made for a reevaluation of VET to ensure its responsiveness to evolving industry needs (Aggarwal et al., 2024)

The findings of this review contribute to the theoretical development of vocational education by reinforcing the proposition that vocational readiness is a multi-dimensional construct shaped by the interplay between experiential learning, psychological factors, and interpersonal competencies. The synthesis strengthens existing theories of experiential learning by demonstrating that internships serve not only as sites for technical skill application but also as catalysts for soft-skill development and self-efficacy enhancement. Moreover, the review expands vocational readiness frameworks by showing how self-efficacy functions as a mediating mechanism that amplifies the benefits of internships and soft-skill acquisition. These insights provide a more holistic theoretical model that integrates workplace learning theories, social cognitive theory, and employability frameworks into a cohesive explanation of how vocational readiness is constructed in contemporary TVET systems.

The Influence of Soft Skills on Vocational Readiness

The role of soft skills such as communication, teamwork, problem-solving, and adaptability in enhancing the employability and vocational readiness of students in vocational education and technical training is increasingly recognized in contemporary research. A review of studies from 2018 to 2025 provides insights into how these competencies are integral to preparing students for successful transitions into the workforce (Zhang, 2025). A study in China reveals that students possess moderate levels of soft skills, which positively correlate with their work readiness. The empirical evidence underscores that enhancing soft skills contributes significantly to students' preparedness for employment. The findings further suggest that educational interventions focused on developing these skills can yield substantial improvements in employability, highlighting the urgency for curriculum reform in vocational education (Zhang, 2025). Project-based learning has been emphasized as an effective method for improving students' technical abilities while simultaneously fostering soft skills. Evidence shows that engaging students in real-world projects not only boosts their motivation and problem-solving capacity but also aligns their learning with industry requirements. This alignment is essential for cultivating vocational readiness, particularly as students gain opportunities to practice soft skills in authentic contexts (Yeri, 2025).

The implementation of the Teaching Factory model has demonstrated positive effects on both technical and non-technical skill development. Student engagement in hands-on learning activities enhances competencies in communication, teamwork, and problem-solving, which are critical for workplace readiness. This underscores the importance of interactive and participatory pedagogies in vocational education, reaffirming that soft skill training is as essential as technical training (Indramayanti et al., 2024). Interpersonal skills, together with motivation and constructive knowledge, have been found to play a crucial role in improving vocational students' readiness for work. Findings suggest that strengthening interpersonal competencies significantly influences students' capacity to transition into employment. Vocational schools are therefore encouraged to prioritize soft skills within their curricula to better prepare students for labor market demands (Indrawati et al., 2023). Internship programs also contribute to the development of soft skills alongside technical competencies. Research shows that interns exhibit personal and professional growth, with practical experiences reinforcing their readiness for industry roles. The results highlight the significance of experiential learning environments in vocational education (Wulandari, 2024).

Generic competencies such as teamwork, communication, problem-solving, and adaptability are increasingly recognized as essential outcomes of vocational education. These skills must be systematically integrated into curricula as a response to the evolving requirements of the future workforce, ensuring that graduates are capable of adapting to technological and organizational change (Kamaruzaman et al., 2025). Problem-solving skills are further enhanced through project-based approaches in programming and technical design courses. These pedagogical strategies improve technical proficiency while also developing soft skills that are indispensable for future employability (Sidi, 2025). Twenty-first century skills such as adaptability, initiative, and cross-cultural competencies are identified as being highly valued by employers. Research indicates that vocational education must embed the development of these skills as a core component of training programs in order to prepare students for competitive labor markets (Nong & Osman, 2024).

Soft skills training requires more than the transfer of knowledge. A qualitative study shows that effective implementation must include structured opportunities for communication, cooperation, leadership, and adaptability. These competencies should be embedded into vocational curricula through intentional design and pedagogical practice (Tisa et al., 2024). Soft skills also exert a direct impact on vocational students' readiness for work. Elements such as self-efficacy, motivation, and practical exposure to industry significantly influence employability outcomes. Strengthening these soft skills is therefore critical for maximizing students' preparedness for labor market entry (Ardiyanto, 2025).

Profiles of vocational students' soft skills reveal disparities that must be addressed through targeted interventions. Bridging the gap between educational outcomes and workforce requirements requires training that explicitly develops interpersonal and adaptive skills relevant to real workplace contexts (Rahmi et al., 2021). Employability is determined by the combined influence of both hard and soft skills. Studies show that vocational graduates are most effectively prepared for employment when education simultaneously develops technical competencies and soft skills such as adaptability and teamwork. This dual emphasis is necessary to equip graduates for employment challenges (Aufi & Irianto, 2025). Students with stronger soft skills are better prepared to adapt to rapid technological change. Research highlights that integrating soft skills into vocational education is critical to ensure readiness for the industrial revolution and future labor market dynamics. This reinforces the importance of embedding adaptability, communication, and teamwork into vocational curricula (Zahir et al., 2024).

Practically, the findings underscore the need for vocational schools, industries, and policymakers to implement more structured, collaborative, and competency-driven internship programs that authentically reflect workplace realities. Institutions must embed systematic soft-skills training—such as communication, adaptability, teamwork, and problem-solving—into their curricula to complement technical instruction. Additionally, targeted interventions to strengthen students' self-efficacy, including mentorship, feedback mechanisms, and scaffolded learning experiences, should be prioritized to enhance students' confidence and resilience in real-world contexts. Strengthening partnerships between schools and industries is also crucial to ensure that curriculum design, internship placement, and assessment practices remain closely aligned with evolving labor market demands. Collectively, these practical steps can help vocational programs produce graduates who are not only technically proficient but also psychologically and socially prepared for the complexities of modern employment.

The Contribution of Self-Efficacy to Vocational Readiness

The relationship between self-efficacy and vocational readiness in vocational education contexts has attracted substantial research attention in recent years. Self-efficacy, defined as an individual's belief in their ability to accomplish tasks, significantly influences motivation,

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academic performance, career adaptability, and workplace success. A synthesis of empirical studies highlights these connections (Chuang et al., 2022). Research demonstrates that self-efficacy serves as a crucial determinant of students' ability to adapt to career changes. Findings indicate that higher self-efficacy correlates with increased motivation and greater adaptability, underscoring the importance of fostering self-efficacy as a central component of vocational education curricula (Chuang et al., 2022). Teacher self-efficacy also plays an indirect role in improving vocational readiness, as demonstrated by studies showing that teachers with higher self-efficacy foster supportive learning environments that elevate students' own self-efficacy, academic performance, and readiness for employment (Chang & Isa, 2024).

Emotional intelligence has been identified as a mediator that links self-efficacy with resilience among vocational students. Findings reveal that enhancing self-efficacy strengthens resilience, equipping students to better cope with challenges in vocational education and supporting long-term career adaptability and success (Jiang, 2024). Further evidence shows that self-efficacy is a strong predictor of learning motivation in higher education contexts, particularly in distance learning, where improved self-efficacy positively influences engagement and academic performance, ultimately strengthening vocational readiness (Andriani et al., 2022). Teacher self-efficacy has been further linked to instructional quality and student achievement. When teachers demonstrate confidence in their teaching capabilities, the quality of instruction improves, which in turn raises students' self-efficacy and vocational preparedness (Kholifah et al., 2023). Cognitive processes also mediate this relationship; high self-efficacy has been shown to reduce cognitive load, thereby enhancing motivation and academic performance, which are central to vocational readiness (Hui, 2024).

The role of social support systems has been highlighted as a factor that strengthens career self-efficacy. Findings suggest that strong support networks significantly enhance students' confidence in career construction, equipping them more effectively for workforce integration (Saputro et al., 2023). Sustainability education has similarly been found to improve teacher self-efficacy, which contributes to preparing educators capable of instilling similar confidence in students, thereby indirectly enhancing vocational readiness (Yang et al., 2024). Practical experiences also play a synergistic role in the development of self-efficacy. Evidence shows that fieldwork practices combined with the cultivation of self-efficacy substantially increase employability. Students who actively engage in experiential learning while strengthening their self-belief are better prepared for the demands of the modern labor market (Yuliyanto et al., 2024).

The Interrelationship among Internship, Soft Skills, and Self-Efficacy

The synthesis of recent studies analyzing the combined influence of internship experience, soft skills, and self-efficacy on vocational readiness provides a comprehensive understanding of these interconnected elements. Discussions include integrative models, mediating effects, and holistic approaches in vocational and technical education contexts (Basir et al., 2022). A Malaysian tracer study emphasizes that working experience gained through internships significantly enhances graduate employability. Findings highlight that soft skills are essential for preparing graduates for the job market, demonstrating a direct link between self-efficacy, internship experience, and vocational readiness. Internship experiences and soft skills collectively improve employability outcomes, suggesting that vocational programs must emphasize both areas to effectively prepare students for workforce demands (Basir et al., 2022). Teacher self-efficacy has also been identified as an important factor influencing students' academic performance and vocational readiness. Educators with strong self-efficacy create supportive environments that enhance students' self-beliefs and readiness for employment,

underscoring the need to integrate self-efficacy elements into teacher training (Chang & Isa, 2024).

Internship programs are further shown to increase students' self-efficacy, which directly contributes to vocational readiness. A mixed-method evaluation reveals that students reported improved teaching skills and confidence following participation in teaching internships, illustrating the value of practical training in enhancing both soft skills and self-efficacy (Tavener et al., 2021). Apprenticeships have similarly been found to strengthen career development self-efficacy and employability skills, supporting career planning and preparedness for workforce integration. Structured internships combined with skill development opportunities foster improved vocational readiness (Omar et al., 2023). Research in Chinese vocational colleges identifies self-efficacy as a positive predictor of student engagement during internships. Higher self-efficacy levels were associated with increased learning engagement, reinforcing the importance of fostering students' belief in their capabilities to maximize internship benefits (Fu et al., 2023). Studies on inclusive practices indicate that enhancing general skills and self-efficacy through supportive programs provides students with disabilities greater access to internships and smoother transitions into the workforce (Chavarría et al., 2020). The role of self-reflection and self-awareness in skill development during internships has also been emphasized, with findings showing that students who evaluate their progress are better equipped for the job market. Self-efficacy emerges as a crucial mechanism mediating this process (Papp et al., 2023).

Further evidence suggests that off-campus internships enhance both basic and soft skills, demonstrating the cumulative effect of self-efficacy and soft skills on career readiness (Huang et al., 2022). Internships also serve as bridges between educational contexts and workforce requirements, significantly improving the soft skills necessary for market integration. Positive experiences during internships enhance students' self-efficacy, which directly influences their employment readiness (Kasim et al., 2024). Findings further reveal that internship experiences help students acquire critical soft skills, which in turn boost their confidence and self-efficacy, forming a reinforcing cycle of improvement (Arthur & Koomson, 2023). Positive attitudes toward internships have been identified as mediators in the relationship between personality traits and employability. Program designs that foster constructive perceptions enhance both self-efficacy and career readiness (Hu, 2025). Family support also plays an important role, with evidence showing that the combination of productive competence, internship experiences, and family involvement contributes to students' self-efficacy and work readiness (Cipta & Wahyuni, 2024). Structured learning experiences within cognitive apprenticeships strengthen practical skills and build self-efficacy among vocational students, demonstrating that holistic educational practices integrating internships, soft skills training, and self-efficacy development are critical for preparing students for professional success (Setiyo et al., 2019).

The results of this systematic literature review highlight that internship experience, soft skills, and self-efficacy are not only independent predictors of vocational readiness but also function in a synergistic manner to enhance students' preparedness for the labor market. Internships provide authentic contexts for applying theoretical knowledge, while soft skills ensure adaptability in dynamic workplace environments, and self-efficacy strengthens confidence and resilience in facing professional challenges. These findings align with Basir et al. (2022), who emphasized the combined influence of workplace learning and soft skills on employability, and with Fu et al. (2023), who demonstrated the mediating role of self-efficacy in maximizing internship outcomes. Conversely, some studies revealed limitations in internships alone, noting that without structured soft skills training, students still face difficulties adapting to workplace expectations (Kasim et al., 2024). Thus, the present study contributes to the field by integrating

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these three dimensions into a holistic model, offering a more comprehensive explanation of vocational readiness compared to previous isolated analyses.

The implications of these findings are both practical and theoretical. For practice, vocational curricula should embed structured internships, systematic soft skills development, and targeted interventions to build self-efficacy, ensuring graduates possess both technical and non-technical competencies. Theoretically, this study supports and extends vocational education frameworks that highlight the interplay between experiential learning and psychological constructs in shaping employability. However, limitations remain, particularly in the scope of reviewed studies, which are mostly concentrated in local or national contexts and lack cross-cultural perspectives. Methodological limitations, such as the predominance of self-reported measures, may also bias the results. Future research should therefore employ longitudinal and cross-cultural designs to capture long-term effects and contextual variations. Moreover, studies focusing on specific vocational domains such as Heating, Ventilation, and Air Conditioning (HVAC) are needed to provide more sector-specific insights and to test the applicability of the integrative framework across diverse technical fields.

Conclusion

This systematic literature review concludes that vocational readiness is shaped by the combined influence of internship experience, soft skills, and self-efficacy. First, internship experiences play a central role in bridging the gap between school-based learning and industry requirements, providing students with technical competencies, exposure to real workplace environments, and opportunities to develop professional networks. Second, soft skills such as communication, teamwork, problem-solving, and adaptability emerge as indispensable elements of employability, enabling students to integrate effectively into dynamic and competitive labor markets. Third, self-efficacy serves as a psychological foundation that strengthens motivation, resilience, and confidence, supporting both academic achievement and career adaptability. Fourth, the interrelationship among these three factors illustrates that vocational readiness is best achieved through a holistic approach in which technical skills, interpersonal competencies, and psychological readiness are cultivated simultaneously. Overall, the findings emphasize that vocational education must not only prioritize technical training but also embed structured internship programs, intentional soft skills development, and strategies to foster self-efficacy. Such an integrative model ensures that students are fully prepared to transition into the workforce, meeting both current and future industry demands

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