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The Role of Vocational Guidance through Work-Based Learning in Career Development within the Education Sector: A Systematic Literature Review

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Abstract

This systematic literature review examines the role of vocational guidance through work-based learning (WBL) in supporting career development within the education sector. Rapid technological change, globalization, and shifting labour market demands have increased pressure on educational institutions to prepare learners not only academically but also professionally. In this context, vocational guidance and WBL have emerged as important mechanisms for improving employability, career readiness, and transitions from education to work. Using a PRISMA-informed review design, this study analysed 40 peer-reviewed articles published between 2016 and 2025 and retrieved from Scopus, Web of Science, ERIC, Google Scholar, and ScienceDirect. Structured screening, quality appraisal, data extraction, and thematic synthesis were employed to identify recurring themes, intervention models, and reported outcomes. The findings indicate that most evidence is concentrated in higher education settings, particularly internships, placements, apprenticeships, and cooperative education programmes. Across the reviewed studies, WBL was consistently associated with stronger employability competencies, including communication, teamwork, problem-solving, adaptability, and professional identity formation. It also contributed to clearer career goals, increased self-efficacy, improved career decision-making, and smoother school-to-work transitions when supported by effective supervision, meaningful task design, reflective learning, and institutional coordination. Furthermore, successful WBL frequently operated as a multi-stakeholder ecosystem involving educational institutions, employers, career counsellors, and labour market systems. However, challenges remain, including uneven programme quality, unequal access to placements, limited supervision, and inconsistent implementation. The review concludes that vocational guidance through WBL can be an effective strategy for career development when intentionally integrated into educational systems. Future research should prioritise longitudinal evidence and underrepresented educational contexts.

KEYWORDS

career development; education sector; employability; systematic literature review; work-based learning

Introduction

Career development has increasingly emerged as a critical issue within the education sector, influenced by rapid technological advancement, globalization, and dynamic labour market changes ([D. Wang et al., 2024](#)). Educational institutions are no longer solely responsible for imparting academic knowledge; they are also tasked with preparing students with the competencies, adaptability, and career readiness

required by the 21st-century workforce. In this context, vocational guidance plays an essential role in supporting students' transition from education to employment. This process assists individuals in understanding their interests, abilities, values, and available career opportunities (Hur et al., 2018).

Vocational guidance entails a structured process that supports individuals in making informed educational and occupational decisions. In educational settings, this includes services such as career counselling, aptitude assessments, career information dissemination, mentoring, and the facilitation of work-based learning. Effective vocational guidance contributes to the development of career maturity, self-efficacy, decision-making competence, and stronger alignment between students' educational pathways and labour market demands. Therefore, it has become an integral component of comprehensive student development programs in schools and higher education institutions (Soares et al., 2022).

Among the various approaches to vocational guidance, work-based learning (WBL) has gained increasing attention as an effective strategy for linking educational experiences with labour market realities. WBL includes internships, apprenticeships, industry placements, cooperative education, and other experiential learning models that enable students to develop practical competencies, professional identity, and career awareness through direct workplace exposure. By integrating guidance processes with authentic work environments, WBL is increasingly viewed as a key pathway for supporting career development in contemporary education systems.

Despite its recognized importance, the implementation of vocational guidance across educational systems shows significant variation. Some institutions have successfully integrated career education into their curricula and established professional counselling services, while others continue to face challenges such as limited resources, insufficiently trained counsellors, and unequal access to guidance programs (Lee et al., 2021). The growing complexity of career pathways in the digital era further underscores the need for innovative and evidence-based approaches to ensure that vocational guidance remains relevant and effective.

Previous studies have examined vocational guidance from several perspectives, including career decision-making theories, counselling interventions, employability skills development, and students' transition from education to work. Existing reviews have also discussed general career counselling practices and the effectiveness of guidance services in schools and higher education institutions. However, many studies focus on single educational levels, specific national contexts, or isolated outcomes such as career maturity, job readiness, or academic choice, resulting in limited cross-context comparison.

In addition, relatively few reviews have specifically analysed how vocational guidance delivered through work-based learning contributes to long-term career development across secondary, vocational, and tertiary education settings. This fragmentation leaves an important gap in identifying which WBL-oriented guidance approaches are most effective, under what conditions, and how institutional factors shape outcomes. Therefore, this study conducts a systematic literature review (SLR) to synthesise empirical and theoretical evidence on the role of vocational guidance through work-based learning in career development

within the education sector. Beyond summarising dispersed studies, this review develops an integrated understanding of intervention models, success factors, implementation barriers, and policy implications, thereby offering evidence-based recommendations for strengthening vocational guidance practices in educational institutions.

In conclusion, effective vocational guidance is essential for navigating the complexities of career development in the contemporary educational landscape. It not only equips students with the necessary competencies but also aligns educational outcomes with labour market demands, thereby enhancing overall employability.

Background and Rationale

The rapid transformation of the global economy, driven by technological innovation, digitalization, and industrial change, has reshaped career pathways into dynamic and non-linear forms requiring adaptability, continuous learning, and informed decision-making. In this context, education is expected not only to provide academic knowledge but also to support sustainable career development (Ndung'u & Obae, 2020). Consequently, vocational guidance has become essential for enhancing career readiness and long-term employability.

Vocational guidance serves as a structured system that helps students identify interests, abilities, values, and career options (Duan & Wu, 2024). Through counselling, assessments, mentoring, and labour market exposure, students are better equipped to make informed decisions. Evidence shows that effective guidance improves career maturity, decision-making, self-efficacy, and reduces career indecision, while minimizing mismatches between education and labour market needs (Z. Wang et al., 2025).

However, implementation varies across institutions and regions. While some systems integrate guidance effectively with trained professionals and policies, others remain under-resourced and reactive. Challenges such as limited counsellor availability, outdated information, and weak industry collaboration persist (Ramadhan et al., 2025).

The increasing complexity of career choices in the digital era requires innovative, evidence-based approaches, including digital counselling and competency-based education. However, existing research remains fragmented across contexts, limiting comprehensive understanding.

Therefore, a Systematic Literature Review (SLR) is needed to synthesize current evidence on vocational guidance in career development. This study aims to integrate theoretical perspectives, practices, outcomes, and research gaps to inform more effective and inclusive guidance frameworks (Shi, 2024).

Problem Statement and Research Gap

Vocational guidance is widely recognized as a critical component of career development in education; however, its effectiveness, accessibility, and relevance remain constrained by several challenges (Bölte et al., 2025). In many institutions, guidance remains fragmented and is often limited to short counselling sessions or occasional seminars rather than being embedded within structured developmental frameworks and authentic workplace learning experiences. This lack of integration contributes to career indecision, mismatches between education and employment, and insufficient workforce preparedness (Kabombo et al., 2025; Neary, 2025).

Disparities across educational levels and regions further limit effectiveness. While some institutions have adopted innovative, technology-driven, and work-based learning approaches, others continue to face resource constraints, inadequate counsellor training, weak industry collaboration, and outdated systems (Lang, 2024). These inconsistencies negatively affect career readiness and long-term employability (Wang et al., 2025).

Despite extensive research, the literature remains fragmented and often context-specific, limiting broader generalisation (Herath et al., 2017). In particular, limited attention has been given to how vocational guidance delivered through work-based learning—such as internships, apprenticeships, and cooperative education—supports career development across different educational contexts. Long-term impacts, implementation conditions, and comparative outcomes also remain underexplored.

These gaps highlight the need for a systematic and integrative review. Therefore, a Systematic Literature Review (SLR) is essential to synthesise current evidence, identify key themes, evaluate methodological trends, and provide evidence-based recommendations for strengthening vocational guidance through work-based learning in the education sector.

Conceptual Framework

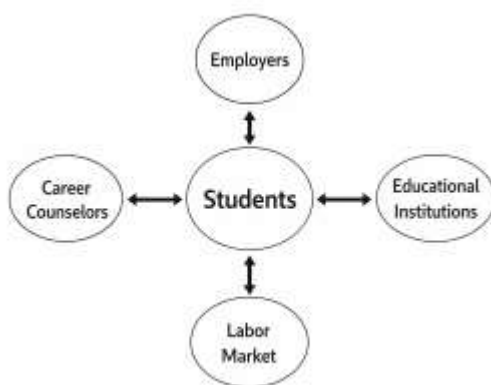


Figure 1. Author-Derived Conceptual Model of Vocational Guidance through Work-Based Learning

Figure 1 presents an author-developed conceptual synthesis derived from the findings of the reviewed studies. Through thematic analysis, four recurring stakeholder domains were identified: educational institutions, employers, career counsellors, and labour market systems. These domains interact to shape students' career development through vocational guidance and work-based learning processes.

Educational institutions provide theoretical foundations and reflective learning opportunities while employers offer authentic workplace experiences that enable the application of knowledge (Peng et al., 2025). Career counsellors support career exploration and decision-making processes (Sawyer, 2023; Yahui & Dagogo, 2025). This collaboration fosters professional identity formation and builds networks essential for career progression (Cahyani et al., 2018; Karwa, 2025).

WBL contributes to career development by supporting career exploration, skill development, and employability. Exposure to real work environments enhances understanding of occupations and informs

career decisions (Кукса & Штика, 2024). It also develops technical and transferable skills, including communication, teamwork, and problem-solving, aligned with labor market needs (Derk et al., 2023). Furthermore, WBL strengthens self-efficacy and expands professional networks, improving employment prospects (Eseadi, 2023).

Integrating vocational guidance within WBL frameworks enables institutions to align academic pathways with career trajectories through continuous interaction between learning and practice (Yusupova & Skudareva, 2018). This approach supports adaptive, long-term career development and enhances workforce readiness in response to evolving labor market demands.

Theoretical Foundations

Vocational guidance plays a central role in career development across educational stages, supported by key frameworks such as Super's Life-Span, Life-Space Theory, Social Cognitive Career Theory (SCCT), Holland's RIASEC model, and constructivist perspectives on career adaptability. In this review, these theories were not presented solely as background concepts, but were used to inform the analytical framework of the synthesis process. Specifically, they guided the development of coding categories related to career choice factors, self-efficacy, vocational interests, career maturity, adaptability, and decision-making processes. During data extraction, studies were examined according to how their interventions, outcomes, or conceptual discussions aligned with these theoretical dimensions. The theories also supported the interpretation of findings by providing explanatory lenses for understanding how vocational guidance and work-based learning contribute to students' career development across different educational contexts.

Super's theory conceptualizes career development as a multi-stage process—growth, exploration, establishment, maintenance, and disengagement—shaped by individual and environmental factors. In educational contexts, guidance primarily supports the exploration stage by enhancing career maturity, self-concept, and informed decision-making (Ertl et al., 2022).

SCCT emphasizes the role of self-efficacy, outcome expectations, and personal goals in shaping career decisions. Interventions such as counseling and mentoring strengthen confidence and resilience through experiential learning, highlighting the interaction between psychological and environmental factors (Ludwikowski et al., 2017; Ndung'u & Obae, 2020).

Holland's RIASEC theory focuses on the congruence between personality and work environments as a determinant of satisfaction and stability. Evidence shows that alignment improves career outcomes, with guidance programs using interest assessments to support educational and occupational matching (Adiya & Zola, 2022; Hartmann et al., 2021).

Contemporary constructivist approaches emphasize adaptability and active career construction in dynamic labor markets. Integrating work-based learning further strengthens adaptability and lifelong career management.

Overall, these frameworks provide a multidimensional foundation, highlighting the interplay of psychological factors, experiential learning, and institutional support in enhancing career development.

Methods

This study employs a Systematic Literature Review (SLR) approach to examine the role of vocational guidance in career development within the education sector. The SLR method ensures transparency, rigor, and replicability in identifying, evaluating, and synthesizing relevant studies, following established guidelines to minimize bias and enhance reliability.

A review protocol was developed by the authors prior to the study to enhance methodological transparency and consistency throughout the review process. The protocol was not externally registered; however, it served as an internal guide specifying the research objectives, review questions, search strategy, inclusion and exclusion criteria, screening procedures, and data analysis methods. The study adopted a qualitative synthesis approach to identify recurring patterns, themes, theoretical frameworks, intervention models, and outcomes related to vocational guidance and career development. Consistent with systematic review procedures, the review followed the main stages of planning, identification, screening, eligibility assessment, data extraction, and evidence synthesis.

Relevant studies were identified through searches of Scopus, Web of Science, ERIC, Google Scholar, and ScienceDirect, selected for their broad coverage of education, vocational guidance, and career development research. Searches were conducted between January and March 2026. The core search string combined keywords and Boolean operators as follows: ("vocational guidance" OR "career guidance" OR "career counselling") AND ("work-based learning" OR internship OR apprenticeship* OR placement* OR "work-integrated learning") AND ("career development" OR employability OR "school-to-work transition")*. Search strings were adapted to the indexing requirements and advanced search functions of each database. For example, title, abstract, and keyword fields were used in Scopus and Web of Science, whereas broader full-text and relevance searches were applied in Google Scholar and ScienceDirect. Filters were applied to include peer-reviewed English-language journal articles published between 2016 and 2026. These limits were used to ensure coverage of recent evidence relevant to contemporary educational systems and labour market contexts. (See [Figure 2](#)).

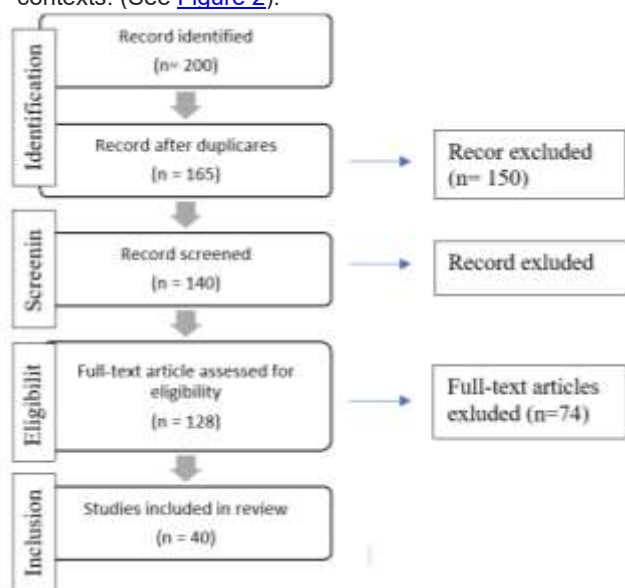


Figure 2. PRISMA Flow Diagram of Article Selection Process

The screening process was conducted in multiple stages. First, duplicate records were identified and removed. Second, titles and abstracts were screened to assess their relevance to the research questions. Articles that did not meet the inclusion criteria were excluded at this stage. Third, full-text articles were assessed for eligibility based on the predefined criteria. Only studies that explicitly addressed vocational guidance and its impact on career development within educational contexts were retained for final analysis. The overall selection process can be illustrated using a PRISMA flow diagram, which outlines the number of records identified, screened, excluded, and included in the final review. This transparent process enhances the credibility and replicability of the study.

To ensure methodological rigour, all studies that met the eligibility criteria were subjected to a structured quality appraisal process prior to final inclusion. The appraisal criteria were adapted from established critical review frameworks for qualitative, quantitative, and mixed-method studies, focusing on six domains: clarity of research objectives, appropriateness of research design, adequacy of sampling procedures, transparency of data collection methods, robustness of data analysis techniques, and evidence of validity or reliability. Each study was independently assessed by two reviewers and rated as high, moderate, or low quality based on the extent to which these criteria were met. Any discrepancies in scoring were resolved through discussion and re-examination of the full text until consensus was reached. Quality ratings were not used as absolute exclusion criteria; however, studies assessed as lower quality were interpreted with greater caution during the synthesis process, while higher-quality studies were given stronger evidential weight in drawing conclusions.

Data extraction was conducted using a structured coding framework. Key information extracted from each study included:

- Author(s) and year of publication
- Country or context of study
- Research design and methodology
- Target population and educational level
- Type of vocational guidance intervention
- Theoretical framework used
- Key findings related to career development outcomes
- Identified challenges or limitations

The extracted data were then analysed through thematic synthesis to identify recurring patterns, conceptual categories, and research gaps. This process allowed for an integrated understanding of how vocational guidance contributes to career development within the education sector.

Result and Discussion

The final review comprises a corpus of peer-reviewed articles published within the 2016–2025 period, encompassing diverse geographical contexts such as Europe, North America, Asia, and Australia, thereby indicating a strong global interest in work-based learning (WBL) and career development.

In terms of educational levels, the majority of studies concentrate on higher education settings, particularly university-based internship programs and cooperative education (co-op) models, while a smaller proportion addresses vocational secondary schools and technical education institutions ([Sasmitha et al., 2023](#)). Methodologically, quantitative approaches are predominant, most commonly employing survey designs to

examine variables such as internship satisfaction, career self-efficacy, employability skills, and career decision-making confidence (S. Liu, 2024; Mahfud et al., 2020). Qualitative studies, including interviews and reflective journals, provide in-depth insights into students' lived experiences within WBL environments, whereas mixed-methods designs enable the integration of statistical analysis with thematic interpretation (Gao et al., 2025; Plasman & Thompson, 2023).

From a theoretical perspective, many studies are grounded in Social Cognitive Career Theory (SCCT), experiential learning theory, and career construction theory. These frameworks are widely employed to explain how experiential learning shapes self-efficacy, career identity, and professional aspirations (Chukwuodo & Ementa, 2022).

Overall, the descriptive analysis indicates that research on work-based learning (WBL) and career development has shown a gradual upward trend over the review period. Of the included studies, a smaller proportion were published between 2016 and 2019, while publication frequency increased more noticeably from 2020 onward, with the highest concentration appearing between 2023 and 2025. This pattern suggests growing scholarly attention to the role of WBL in supporting employability, career readiness, and education-to-work transitions in response to changing labour market demands and contemporary higher education priorities (Gao et al., 2025). (See Table 1).

RQ1. Dominant characteristics, contexts, and methodological approaches of studies on work-based learning and career development

Work-based learning (WBL) and internships were found to be most effective when learning environments were intentionally designed to support supervision quality, task relevance, organisational climate, reflective practice, and alignment with students' career interests. Across the reviewed studies, supervision and mentorship emerged as the most consistently reported factor, with numerous studies indicating that effective supervisors who model professional practice, provide timely feedback, and facilitate reflection were associated with stronger learning gains, higher satisfaction, and greater professional development (Curto-Reverte et al., 2025; Muslihiti et al., 2023). This pattern was particularly evident in higher education internship settings and professionally oriented programmes.

Task relevance and alignment between workplace duties, disciplinary knowledge, and students' career goals were also frequently associated with positive outcomes, especially in vocational and applied disciplines. Studies reported that meaningful and skill-appropriate tasks increased students' work readiness, motivation, and perceived value of placement experiences (Kassam, 2019; Rahdiyanta et al., 2019; Voeller, 2023). A supportive organisational climate—characterised by collaboration, inclusivity, access to resources, and constructive communication—was similarly linked to stronger engagement and smoother workplace adjustment, although this factor was less consistently examined across regions and sectors (Gurn et al., 2021).

Reflective learning, regular feedback, and academic support were moderately supported themes that appeared across several studies, particularly those examining structured internship models and university-based WBL programmes. These mechanisms were found to strengthen learning transfer, career clarity, and the integration of workplace experiences with academic knowledge (Curto-Reverte et al., 2025). Overall, the

synthesis suggests that the strongest evidence supports the importance of supervision quality and task relevance, while organisational climate and reflective support were supported more moderately. These findings indicate that WBL effectiveness depends not merely on participation itself, but on the quality, structure, and intentional design of the learning environment.

RQ2. Factors within work-based learning environments influencing internship satisfaction and career-related outcomes

Work-based learning (WBL) and internships are most effective when learning environments are intentionally designed to support supervision, task relevance, organizational climate, reflective practice, and alignment with students' career interests. High-quality supervision and mentorship consistently predict positive experiences, learning gains, and professional development, particularly when mentors provide feedback and facilitate reflection (Muslihiti et al., 2023).

Task relevance and alignment with students' knowledge and career goals enhance satisfaction and perceived work readiness, highlighting the importance of meaningful tasks and structured learning agreements (Shi, 2024). A supportive organizational climate—characterized by collaboration, inclusivity, and constructive feedback—further promotes engagement and learning transfer (Grantham & Iachizzi, 2024).

Guided reflection and academic support strengthen career clarity by linking experience with theory while career-interest alignment predicts stronger outcomes (Voeller, 2023). Overall, WBL effectiveness depends on the quality and intentional design of the learning environment.

RQ3. Contribution of work-based learning to career goal formation and career decision-making

The synthesis of findings suggests that work-based learning (WBL) is positively associated with students' career goals and decision-making processes. Across the reviewed studies, participants frequently reported that WBL experiences helped them test prior career assumptions, clarify professional interests, and evaluate their competencies within authentic workplace settings (Grantham & Iachizzi, 2024; Rahdiyanta et al., 2019; Yahui & Dagogo, 2025). However, as much of the available evidence was based on cross-sectional designs and self-reported perceptions, these findings should be interpreted as reported contributions and associations rather than definitive developmental effects. Nonetheless, the consistency of these patterns across multiple studies indicates that WBL may provide valuable experiential contexts that support career reflection and more informed career choices.

Several studies report that participation in internships enhances career self-efficacy, which in turn strengthens commitment to specific career paths (Sasmita et al., 2023). Exposure to authentic workplace challenges also promotes career adaptability and realistic career expectations. In some cases, students refine or even change their career goals after WBL participation, reflecting the exploratory and confirmatory functions of experiential learning (Johnson, 2022).

Moreover, structured reflection activities within WBL programs contribute to improved career decision-making skills. By analysing their experiences, students gain greater self-awareness and insight into occupational preferences, leading to more informed educational and career planning. Overall, WBL serves as both an exploratory mechanism and a decision-validation process in career development.

RQ4. Work-based learning as a career guidance ecosystem supporting employability outcomes

The findings provide qualified support for conceptualising work-based learning (WBL) as a career guidance ecosystem involving multiple stakeholders and developmental processes, rather than as a workplace training mechanism alone. Across the reviewed studies, several authors documented explicit coordination between educational institutions and employers through jointly organised placements, curriculum alignment, supervision arrangements, and shared feedback processes that connected classroom learning with workplace expectations (Curto-Reverte et al., 2025; Qeww-Jones & Rowe, 2022). These forms of collaboration indicate that WBL frequently extended beyond simple workplace exposure to include structured educational planning and institutional partnership.

The reviewed evidence also suggests that guidance functions were embedded within many WBL programmes. Studies reported pre-placement orientation, career planning sessions, skills assessment, mentoring, reflective journals, and post-placement review activities designed to help students interpret experiences and relate them to future career pathways (Bölte et al., 2025). In developmental terms, students were commonly described as active participants who reassessed career interests, strengthened professional identity, and applied academic knowledge through guided experiential engagement. Accordingly, the synthesis indicates that WBL can operate as an integrated career development system when educational institutions, employers, counsellors, and learners are intentionally connected through coordinated support processes.

This ecosystem was frequently associated with stronger employability competencies, including communication, teamwork, problem-solving, adaptability, and professional identity formation. Several reviewed studies also suggested that WBL may strengthen students' social capital through access to professional networks, workplace relationships, and broader occupational exposure (Tütlys et al., 2022). When well-structured and effectively coordinated, WBL was commonly linked to improved employability outcomes and stronger prospects for long-term career sustainability. However, persistent challenges such as uneven programme quality, unequal access, and inconsistent implementation continued to limit its effectiveness across contexts (Kassam, 2019; Shi, 2024).

Significance of Vocational Guidance in Modern Education Systems

This study aimed to systematically review the role of work-based learning (WBL) within the broader framework of vocational guidance and career development in the education sector. The findings suggest that WBL operates not only as an instructional strategy, but also as a structured career development mechanism associated with students' career readiness, decision-making confidence, and employability outcomes (Chen et al., 2023). In contemporary education systems, vocational guidance has become increasingly important as institutions are expected not only to deliver academic knowledge, but also to prepare learners for complex and rapidly changing labour market demands. In this context, WBL appears to strengthen vocational guidance by providing experiential pathways through which students can apply knowledge, explore career options, and develop work-relevant competencies. The discussion below interprets these findings in relation to relevant theoretical perspectives and broader educational implications (Gurn et al., 2021; Yoa et al.,

2023).

The descriptive analysis revealed a notable concentration of studies conducted in higher education settings, which accounted for the largest share of the included literature, while fewer studies focused on school-based contexts, secondary vocational education, or other training environments. This distribution suggests that research on work-based learning (WBL) has been particularly shaped by university-sector concerns, with many studies emphasising quantitative indicators such as graduate employability, career readiness, and transition outcomes (RQ1). Such patterns are broadly consistent with international policy agendas that position graduate employability as a key indicator of educational quality and institutional performance (Sinaga et al., 2025).

Within higher education, WBL programmes were frequently examined in relation to measurable institutional objectives, including employment rates, work readiness, and graduate competitiveness, which are increasingly prioritised in policy discussions concerning educational effectiveness (Davis et al., 2013; Firdaus et al., 2019). By contrast, comparatively fewer studies adopted longitudinal designs or cross-level comparisons involving secondary schools, vocational education, or transitions across multiple educational stages. This imbalance highlights an important gap in understanding developmental continuity in career guidance and WBL experiences across diverse educational settings, indicating the need for broader and more longitudinal future research (Chen et al., 2023; Sinaga et al., 2025).

Alignment with Career Development Theories

The findings regarding the influence of environmental and relational factors in WBL strongly endorse Social Cognitive Career Theory (SCCT), highlighting the interdependence of self-efficacy beliefs and outcome expectations in shaping career-related outcomes (RQ2). SCCT posits that various learning experiences, mentorship quality, and the supportive nature of organizational climates play pivotal roles in enhancing students' internship satisfaction and career confidence. Specifically, mentorship and experiential engagement emerge as key contributors to fostering an environment conducive to career development, indicating that WBL's effectiveness is significantly enhanced by psychosocial conditions that promote mastery experiences and positive reinforcement (Aprinaldi et al., 2021; Vats & Malik, 2024).

WBL also plays a vital role in the formation of career goals and decision-making processes, aligning with Super's Life-Span, Life-Space Theory and Career Construction Theory (RQ3). These frameworks suggest that WBL provides experiential opportunities for students to refine their self-concept, explore occupational preferences, and clarify professional identities during critical periods of career development (Sinaga et al., 2025). The reflective components built into many WBL programs help students to adaptively construct coherent career narratives that respond to the evolving labor market, thus serving both exploratory and confirmatory functions in career development.

Bridging the Gap Between Education and Labor Market Needs

The findings further highlight the crucial role of WBL in bridging the gap between education and labour market needs. Through internships, apprenticeships, and other experiential learning models, WBL connects academic knowledge with real-world applications, enabling students to develop both technical and transferable skills aligned with industry demands. This alignment reduces skills mismatch, enhances job readiness, and strengthens students'

professional identity formation. Consequently, WBL operates as a strategic mechanism within vocational guidance systems that ensures education remains responsive to labour market changes (Chen et al., 2023). Moreover, the findings propose a re-conceptualization of WBL as a career guidance ecosystem, moving beyond traditional views that isolate guidance as episodic counselling sessions (RQ4). The study advocates for an integrated approach where educational institutions, employers, and counsellors collaborate to enhance career developmental processes. Such an ecosystem perspective optimizes educational outcomes by interlinking academic learning, practical workplace exposure, and structured career reflection. This integrated approach not only facilitates skill acquisition but also aids in the development of professional identities and social capital, essential for thriving in contemporary work environments.

Need for System Improvement and Innovation in Practice

Despite its substantial contributions, the implementation of WBL and vocational guidance still faces significant challenges, highlighting the need for system improvement and innovation in practice. Variability in program quality, inequitable access to high-quality placements, and limited supervision can diminish the overall impact of WBL experiences (Aprinaldi et al., 2021; Y. Liu et al., 2024; D. Wang et al., 2024). Furthermore, an overemphasis on immediate employability outcomes risks overshadowing broader developmental aspects such as resilience, lifelong learning capacity, and career adaptability. These challenges underscore the necessity for more inclusive, adaptive, and technology-enhanced approaches, including digital career counselling and AI-based guidance systems, to improve accessibility and effectiveness (Duan & Wu, 2024).

Overall, the discussion underscores that work-based learning, when embedded within a structured vocational guidance framework, significantly enhances career development processes. Integrating theoretical foundations with practical implementation strategies can strengthen the effectiveness of WBL as a sustainable career guidance ecosystem within the education sector, ensuring that students are better prepared to navigate increasingly complex and evolving career pathways.

Conceptual Synthesis of Stakeholder Interactions in Vocational Guidance through Work-Based Learning

Figure 1 was developed as an author-derived conceptual synthesis based on the thematic analysis of the studies included in this review and is therefore positioned in the Results and Discussion section rather than as a preliminary theoretical framework. The derivation process followed three analytical stages. First, findings from all selected studies were systematically coded to identify recurring themes related to vocational guidance practices, stakeholder involvement, work-based learning (WBL) mechanisms, and career development outcomes. Second, similar codes were grouped into broader analytical categories to determine the most frequently reported domains influencing students' career trajectories. Third, relationships among these categories were mapped into an integrative model showing how multiple actors interact to support career development through WBL pathways.

This synthesis consistently identified four stakeholder domains: educational institutions, employers, career counsellors, and labour market systems, with students positioned at the centre of the model. Educational institutions increasingly function as central hubs that integrate career preparation into the broader learning experience. They coordinate structured work-based

learning opportunities, such as internships, cooperative education, and apprenticeships, while embedding these experiences into curriculum design to connect classroom learning with workplace practice. In addition, institutions cultivate partnerships with employers to strengthen recruitment pipelines and align curricula with labour market needs. Through these roles, they expand student access to WBL and support smoother transitions from education to employment (Appiah & Acquaye, 2023; Johnson, 2022; Miller & Hough, 2024; Plasman & Thompson, 2023).

Employers constituted the second major stakeholder domain within the conceptual model, with their involvement in work-based learning (WBL) through internships, apprenticeships, placements, and mentoring consistently linked to stronger employability skills and occupational awareness. Across the reviewed studies, employer participation enabled students to engage with authentic workplace tasks, organisational cultures, and industry expectations, thereby strengthening readiness for labour market entry. As Maertz et al., (2014) noted, internships provide stakeholders with "one-stop shopping" for developing successful placements while generating job-related and career-related benefits for interns as well as recruitment advantages for employers.

This broader perspective aligns with evidence showing that structured workplace experiences enhance communication, teamwork, problem-solving abilities, and professional confidence, particularly when accompanied by active mentoring and supervisory feedback (Bawica, 2021; Dodge & McKeough, 2003). Program evaluations further indicate that sustained employer partnerships improve curriculum relevance, expand placement opportunities, and help students develop clearer occupational aspirations and awareness of viable career pathways (Bozick et al., 2019; Busuttill, 2022). Overall, the reviewed evidence suggests that proactive employer engagement is critical in ensuring that vocational guidance through WBL translates into meaningful career development outcomes.

Career counsellors constituted the third stakeholder domain within the conceptual model, with the reviewed studies consistently associating their role with self-assessment, career planning, decision-making support, and reflective learning before, during, and after work-based learning (WBL) experiences. Prior to placement, counsellors were frequently described as helping students identify personal strengths, interests, values, and suitable occupational pathways, thereby improving readiness for internships and other workplace learning opportunities. Evidence suggests that WBL can help students clarify career objectives and identify developmental pathways that enhance employment prospects, reinforcing self-awareness within career planning processes (Jackson, 2015). During placements, counsellors also supported students in interpreting workplace experiences, managing challenges, and making informed decisions regarding future career directions. In addition, career development learning practices encouraged students to articulate achievements and capabilities gained from work experiences, linking reflective practice with employability outcomes (D. A. Jackson & Edgar, 2019).

After WBL participation, counsellors played an important role in facilitating reflection, consolidating learning, and helping students translate workplace experiences into clearer career goals and broader occupational options. The reviewed evidence therefore indicates that counselling support is most effective when sustained across the full WBL cycle rather than delivered as isolated advisory interventions, enabling stronger career self-management and more integrated transitions between education and employment (D. Jackson, 2015).

Labour market systems constituted the fourth stakeholder domain within the conceptual model by shaping vocational guidance practices through skill demand signals, occupational trends, and employment opportunities. Across the reviewed studies, labour market information was consistently identified as a critical input for aligning career guidance with workforce realities, enabling institutions and counsellors to connect educational pathways with emerging occupations and required competencies. Evidence suggests that labour market intelligence supports curriculum review, programme planning, and personalised guidance by translating occupational data, skills frameworks, and sectoral trends into actionable career information for learners (Dascălu et al., 2023; Fitó & Pagés, 2023).

More broadly, labour-market-informed guidance was associated with stronger career decision-making, improved awareness of viable employment opportunities, and closer alignment between education systems and labour market needs. Overall, the reviewed literature indicates that labour market systems should be understood not as external constraints, but as active components of vocational guidance ecosystems that help steer students toward sustainable and context-relevant career pathways (Peters et al., 2023; Ültanır, 2012).

The reviewed evidence further indicated that these domains are interdependent rather than isolated. Studies reporting strong collaboration between schools and employers, combined with counselling support and labour market alignment, showed more positive outcomes such as career readiness, smoother school-to-work transitions, clearer career goals, and stronger employability. Evidence suggests that these outcomes were strongest when educational institutions actively engaged employers in curriculum design and placement pathways while simultaneously integrating counselling and mentoring services that prepared students for workplace entry. In such settings, labour market information also played an important role by helping institutions align programmes with local demand and emerging occupational opportunities, thereby improving graduate relevance and job matching (Atwell et al., 2022; Chun Anderson et al., 2024; Dadzie et al., 2020).

Broader policy analyses similarly indicate that employer-linked guidance systems and coordinated transition services can significantly improve youth employment outcomes by connecting learners with realistic pathways and timely career support. However, the strength of these interactions varied considerably across institutional contexts and national systems. In contrast, fragmented systems—where counselling, workplace learning, and institutional planning operated separately—were commonly associated with weaker outcomes. Accordingly, Figure 1 should be interpreted not as a direct reproduction of a prior framework, but as a synthesised representation of patterns emerging across the reviewed literature. It visually summarises how vocational guidance through WBL operates as a multi-stakeholder ecosystem that supports students' career development.

Table 1. Key Findings from Reviewed Literature

No	Author(s)	Year	Study Focus	Key Findings	Moderating Factors	Geographic Context
1	Hur et al.	2018	Career coaching program	Improves career readiness and decision-making	Program design	Korea
2	Lee et al.	2021	Career education equity	Enhances equal career opportunities	Institutional policy	South Korea
3	Soares et al.	2022	Career interventions	Increase employability and adaptability	Intervention type	Global

Implications

Implications for Educational Policy and Practice

This review emphasizes positioning vocational guidance as a core element of educational policy rather than a supplementary service. Career guidance should be integrated into curricula, particularly through work-based learning (WBL) models such as internships and apprenticeships, to support both academic and career-related competencies. Strengthening alignment between education and labor market demands requires collaboration among institutions, industry, and policymakers. Ensuring equitable access remains critical, as disparities in resources and program quality persist. Policies should promote inclusive, evidence-based approaches, including increased counsellor availability, digital guidance systems, and structured WBL programs to support students' career pathways.

Implications for Career Guidance Professionals and Institutions

Career guidance professionals should adopt a holistic and proactive role, facilitating self-awareness, reflection, and career decision-making while helping students connect WBL experiences to long-term goals. At the institutional level, effective guidance requires coordinated efforts among educators, employers, and career services. Providing structured support, quality supervision, and reflective practices can strengthen vocational guidance as a comprehensive system supporting employability and sustainable career development.

Limitations

This review has several limitations. Most included studies use quantitative and cross-sectional designs, which restrict causal interpretation and limit insights into long-term career development outcomes. Although the findings consistently highlight the positive role of vocational guidance and work-based learning (WBL), they provide limited understanding of how these effects evolve over time. Variations in research design, measurement tools, and conceptual definitions may also affect the comparability of results.

In addition, the literature shows conceptual and contextual diversity, as vocational guidance is defined differently across studies. Most research focuses on higher education, particularly internships, while fewer studies address vocational secondary education or other contexts, reducing the overall comprehensiveness.

The scope of this review is confined to formal educational settings integrating WBL, limiting its applicability to informal or non-institutional contexts. Furthermore, despite covering multiple regions, geographical representation remains uneven. Differences in educational systems, labor markets, and cultural factors may influence the implementation of vocational guidance. Therefore, the findings should be interpreted with caution, and future research should adopt more diverse and longitudinal approaches.

4	Mahfud et al.	2020	Career readiness	Strengthens career decision skills	Self-efficacy	Indonesia
5	Chukwuendo & Ementa	2022	Work-based learning	Improves employability through experience	Experiential learning	Nigeria
6	Liu et al.	2024	Career development	Self-efficacy predicts career success	Psychological factors	Global
7	Gao et al.	2025	Career advising	Career exploration improves orientation	Counseling quality	China
8	Curto-Reverte et al.	2025	WBL review	WBL enhances employability outcomes	Program quality	Europe
9	Shi	2023	Employment management (regression)	Career guidance & website affect employment	Guidance quality, info access	China
10	Guifa et al.	2023	Career guidance course reform	Improves career readiness & employability through IT-based learning	Technology use, teaching methods	China
11	Bölte et al.	2025	Career guidance for neurodivergent individuals	Improves employment outcomes with proper support	Support systems, workplace fit	Global
12	Kabombo et al.	2025	School guidance	Improves youth employability	Resource availability	Zambia
13	Eseadi	2023	Counseling models	Counseling improves career clarity	Counseling approach	Global
14	Muslihati et al.	2023	Internship outcomes	Internship builds work readiness	Supervision quality	Indonesia
15	Rahdiyanta et al.	2019	WBL model	WBL improves vocational skills	Industry collaboration	Indonesia
16	Tüttlys et al.	2022	VET ecosystem	Ecosystem improves labor integration	Economic system	Europe
17	Wang et al.	2024	Career intervention	Improves decision-making skills	Intervention design	Global
18	Eriksson et al.	2018	School career support	Enhances career knowledge	School resources	Europe
19	Vats & Malik	2024	Vocational guidance program	Improves decision-making & self-awareness	Resources, policy support	India
20	Duan & Wu	2024	AI career planning	AI improves career decision accuracy	Technology	China
21	Grantham & Iachizzi	2024	WBL learning	WBL enhances communication skills	Learning environment	USA
22	Gurn et al.	2021	Internship experience	Improves engagement and learning	Workplace climate	USA
23	Voeller	2023	Apprenticeship	Improves career pathways	Industry link	USA
24	Peng et al.	2025	Counseling management	Improves student outcomes	Management quality	China
25	Karwa	2025	Career services	Digital transformation improves services	Technology	Global
26	Yahui	2025	Employment challenges	Guidance reduces unemployment	Labor market	China
27	Johnson	2022	Internship role	Employer involvement improves outcomes	Mentorship	USA
28	Quew & Rowe	2022	Apprenticeship curriculum	Mentorship enhances learning	Supervision	UK
29	Sawyer et al.	2025	Workforce link	Networking improves employability	Social capital	USA
30	Cahyani et al.	2025	Internship literacy	Improves competencies	Training	Indonesia
31	Kassam et al.	2019	WBL skills	Improves technical skills	Industry exposure	Global
32	Chavan & Carter	2018	Work readiness	Improves employability skills	Experience	Australia
33	Derk et al.	2023	Internship impact	Enhances career skills	Program quality	USA
34	Plasman & Thompson	2023	Informal learning	Improves economic outcomes	Learning type	Europe
35	Ndung'u & Obae	2020	Placement system	Improves career allocation	System policy	Kenya
36	Neary	2025	Career aspiration	Aspirations affect career choices	Social factors	Sri Lanka
37	Susanti et al.	2020	Problem solving	Improves career decision skills	Training	Indonesia

38	Wang et al.	2025	Employment lag	Strategy improves outcomes	Policy	China
39	Sinaga & Ildil	2025	Career readiness theory	Theory supports guidance practice	Theory	Indonesia
40	Liu et al.	2024	Inclusive career dev	Inclusion improves outcomes	Accessibility	Global

Conclusion

This systematic review examined the role of work-based learning (WBL) within the broader context of vocational guidance and career development in educational settings. The included literature, which was concentrated largely in higher education and internship-based contexts, suggests that WBL is consistently associated with improved career readiness, employability competencies, career reflection, and more informed career decision-making, particularly when supported by effective supervision, meaningful task design, structured reflection, and strong institutional coordination. The findings further indicate that WBL can contribute to vocational guidance when intentionally integrated with counselling services, curriculum planning, employer collaboration, and labour market information, thereby helping students connect academic learning with occupational pathways and transition more effectively into employment.

However, these benefits were not uniform across studies, as programme quality, access to placements, supervision standards, and institutional capacity varied considerably. Given the concentration of evidence in university-based settings, these conclusions should be interpreted primarily within higher education contexts rather than generalised to all forms of vocational guidance or all educational sectors. Future research should therefore examine underrepresented settings such as secondary vocational education, adopt more longitudinal designs, and explore how integrated guidance systems can support diverse learners in changing labour market conditions.

Author contributions

The author contributed significantly to all aspects of this study. Conceptualization and research design were carried out by the author, followed by the development of the systematic literature review protocol. The author conducted data collection, screening, and analysis,

including thematic synthesis of the findings. Writing—original draft preparation, as well as reviewing and editing of the manuscript, were also performed solely by the author. The author takes full responsibility for the integrity and accuracy of the work and has approved the final version of the manuscript.

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Conflict of interest

The author declares no conflicts of interest in relation to this research. There are no financial, institutional, or personal relationships that could have influenced the outcomes or interpretation of the findings presented in this study.

References

Adlya, S. I., & Zola, N. (2022). Holland's Theory to Guiding Individual Career Choices. *Jurnal Neo Konseling*, 4(4), 30. <https://doi.org/10.24036/00698kons2022>

Appiah, N. A., & Acquaye, R. (2023). *The Relationship Between Wbl and Certificated Learning Within Higher Education Institutions: the Ghanaian Experience*. <https://doi.org/10.21203/rs.3.rs-2475149/v1>

Aprinaldi, E., Muri Yusuf, A., & Afdal. (2021). Super Life Span Theory and Its Implications in Career Guidance and Counseling in Schools. *Jurnal Neo Konseling*, 3(3), 46–49. <https://doi.org/10.24036/00575kons2021>

Atwell, A., Ecton, W., Klein, S., D'Amico, M. M., & Sublett, C. (2022). Community college responses to align career and technical education programs with changing labor markets. *New Directions for Community Colleges*, 2022(197), 45–58. <https://doi.org/10.1002/cc.20496>

Bawica, I. (2021). The University Internship Program and its Effects on Students' Employability Readiness. *International Journal of Academe and Industry Research*, 2(3), 86–101. <https://doi.org/10.53378/348731>

Bölte, S., Carpini, J. A., Black, M. H., Toomingas, A., Jansson, F., Marschik, P. B., Girdler, S., & Jonsson, M. (2025). Career Guidance and Employment Issues for Neurodivergent Individuals: A Scoping Review and Stakeholder Consultation. *Human Resource Management*, 64(1), 201–227. <https://doi.org/10.1002/hrm.22259>

Bozick, R., Gonzalez, G. C., Lanna, S., & Mean, M. (2019). *Preparing New York City High School Students for the Workforce: Evaluation of the Scholars at Work Program*. <https://doi.org/10.7249/RR2488>

Busutil, L. (2022). The Symbiotic Interaction between Industry and Academia in Tertiary Education: A Case Study on Internships. *Informatics in Education*, 21(4), 589–603. <https://doi.org/10.15388/infedu.2022.24>

Cahyani, I., Sulistyaningsih, L., & Kusumah, E. (2018). Development Of Literacy Competencies With The Internship Model In The Library Service And Regional Archives Of West Java Province. *JOCS*. <https://doi.org/10.62568/jocs.v3i1.25>

Chen, J., Greenier, V., & Janes, S. (2023). A netnography of emergent ESOL researcher identity and development in a virtual community of

- practice. *International Journal of Applied Linguistics*, 33(2), 275–291. <https://doi.org/10.1111/ijal.12465>
- Chukwuendo, S., & Ementa, C. (2022). Students' work placement learning and employability nexus: Reflections from experiential learning and social cognitive career theories. *Industry and Higher Education*, 36(6), 42–755. <https://doi.org/10.1177/09504222221099198>
- Chun Anderson, J., Rumrill, C. A., Richard, S., Zhou, C., & Froehlich. (2024). Promoting Quality Career Pathways for Individuals with Disabilities through the Public Vocational Rehabilitation Program A Quick Look. *Journal of Vocational Rehabilitation*, 60(3), 299–310. <https://doi.org/10.3233/JVR-240014>
- Curto-Reverte, A., Peguera-Carré, M. C., Cobos-Rius, H., & Vidal-Martí, C. (2025). The role of work-integrated learning in the European Higher Education Area: A systematic review. *Review of Education*, 13(3). <https://doi.org/10.1002/rev3.70114>
- Dadzie, C. E., Fumey, M., & Namara, S. (2020). *Youth Employment Programs in Ghana Options for Effective Policy Making and Implementation*. <https://doi.org/10.1596/978-1-4648-1579-9>
- Dascălu, M., Bodea, C., Nemoianu, I., Hang, A., Puskás, I., & Stănică, I. (2023). CAREPROFSYS - An ontology for career development in engineering designed for the Romanian job market. <https://doi.org/10.59277/RRST-EE.2023.68.2.16>
- Davis, N., Hansmeyer, E., Minic, B., Prakash, S., & Rangan, S. (2013). TEN youth: Unlocking enterprise growth by focusing on the fortune at the bottom of the talent pyramid. *Innovations: Technology, Governance, Globalization*, 8(1–2), 141–157. https://doi.org/10.1162/INOV_a_00170
- Derk, J., Dzirasa, K., & Locklear, T. (2023). A novel cross-institutional college internship program to train future diverse leaders in clinical research with data-driven approaches to assess impact. *Frontiers in Pharmacology*, 14. <https://doi.org/10.3389/fphar.2023.1294535>
- Dodge, R. B., & McKeough, M. (2003). Internship and the Nova Scotia Government experience. *Education + Training*, 45(1), 45–55. <https://doi.org/10.1108/00400910310459662>
- Duan, J., & Wu, S. (2024). Beyond Traditional Pathways: Leveraging Generative AI for Dynamic Career Planning in Vocational Education. *International Journal of New Developments in Education*, 6(2). <https://doi.org/10.25236/ijnde.2024.060205>
- Ertl, B., Hartmann, F. G., & Wunderlich, A. (2022). Impact of Interest Congruence on Study Outcomes. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.816620>
- Eseadi, C. (2023). Career counselling models and services for students with specific learning disabilities. *KONSELOR*, 12(1), 1–16. <https://doi.org/10.24036/020231216-0-86>
- Firdaus, M., Budiman, E., Haviluddin, Wati, M., Setyadi, H., & Pakpahan, H. (2019). An Openness Of Government Website Content Using Text Analysis Method. *International Journal of Engineering and Advanced Technology*, 8(5), 808–817. <https://doi.org/10.35940/ijeat.E1114.0585C19>
- Fitó, À., & Pagés, C. (2023). Universities and the Challenge of Employability: Leveraging Labor Market Data for Relevant Lifelong Education. *Ubiquity Proceedings*. <https://doi.org/10.5334/uproc.76>
- Gao, T., Xu, G., Han, T., & Sun, J. (2025). How Perceived Career Advising Initiates Career Orientation of UAS Undergraduates in China: Career Exploration as a Mediator. *Behavioral Sciences*, 15(9). <https://doi.org/10.3390/bs15091208>
- Grantham, S., & Iachizzi, M. (2024). From classroom to career: A new approach to work-integrated learning in communication studies. *Higher Education Skills and Work-Based Learning*, 14(4), 821–834. <https://doi.org/10.1108/heswbl-02-2024-0051>
- Gurn, A., Bass, K. M., Gayden, L., Allen, A., & Jarvis, N. (2021). Conducting STEM Industry Internships while Sheltering in Place: The Biotech Partners Experience. *The Journal of STEM Outreach*, 4(4). <https://doi.org/10.15695/jstem/v4i4.02>
- Hartmann, F., Heine, J.-H., & Ertl, B. (2021). Concepts and Coefficients Based on John L. Holland's Theory of Vocational Choice-Examining the R Package holland. *Psych*, 3(4), 728–750. <https://doi.org/10.3390/psych3040047>
- Herath, H., Wijayasekara, D., & Nawarathna, N. (2017). *TVET qualification statuses in Sri Lankan labour market*. <https://doi.org/10.21275/ART20178559>
- Hur, Y., Cho, A. R., Song, E. J., & Kim, S. (2018). Evaluation of a systematic career coaching program for medical students in Korea using the Career Readiness Inventory. *Journal of Educational Evaluation for Health Professions*, 15, 10. <https://doi.org/10.3352/jeehp.2018.15.10>
- Jackson, D. (2015). Career choice status among undergraduates and the influence of work-integrated learning. *Australian Journal of Career Development*, 24(1), 3–14. <https://doi.org/10.1177/1038416215570043>
- Jackson, D. A., & Edgar, S. (2019). Encouraging students to draw on work experiences when articulating achievements and capabilities to enhance employability. *Australian Journal of Career Development*, 28(1), 39–50. <https://doi.org/10.1177/1038416218790571>
- Johnson, W. (2022). An Exploration of Employer Participation in Internships and Other Work-Based Learning Experiences. *Journal of Career and Technical Education*, 37(1). <https://doi.org/10.21061/jtce.v37i1.a1>
- Kabombo, K., Thelma, C. C., & Ngulube, L. (2025). Assessing the Role of Career Guidance Programs in Secondary Schools in Zambia: A Path to Job Creation and Sustainability. *Asian Journal of Education and Social Studies*, 51(6), 1141–1152. <https://doi.org/10.9734/ajess/2025/v51i62064>
- Karwa, K. (2025). Navigating the digital shift: The evolution of career services in the digital age. *International Journal of Science and Research Archive*, 14(2), 1833–1854. <https://doi.org/10.30574/ijrsa.2025.14.2.0579>
- Kassam, S. (2019). Enhancing Self-Reliant of Students in Technical and Vocational Skills Through Work-based Learning for 4th Industrial Revolution. *International Journal of Recent Technology and Engineering*, 8(3S2), 931–935. <https://doi.org/10.35940/ijrte.C1243.1083S219>
- Lang, W. (2024). A study on the administration of career guidance to college students in higher education based on mental health education assessment data. *Applied Mathematics and Nonlinear Sciences*, 9(1). <https://doi.org/10.2478/amns-2024-0519>
- Lee, Y., Lee, G., Kim, J., & Lee, M. (2021). *Equity in Career Development of High School Students in South Korea: The Role of School Career Education*. <https://doi.org/10.3390/educsci11010020>
- Liu, S. (2024). Integrating self-efficacy and career anchor: a multi-dimensional model to enhance vocational college students' employment competitiveness. <https://doi.org/10.21203/rs.3.rs-4968554/v1>
- Liu, Y., Chiu, Y., Guennouni, N., & Conyers, L. (2024). Career development of college students with disabilities: A scoping review. *Journal of Career Development*, 51(2), 254–298. <https://doi.org/10.1177/08948453241236114>
- Ludwikowski, W., Armstrong, P., & Lannin, D. (2017). *Explaining Gender Differences in Interests*. 26(2), 240–257. <https://doi.org/10.1177/1069072717692743>
- Maertz, C. P., Stoeberl, P. A., & Marks, J. (2014). Building successful internships: Lessons from the research for interns, schools, and employers. *Career Development International*, 19(1), 123–142. <https://doi.org/10.1108/CDI-03-2013-0025>
- Mahfud, T., Siswanto, I., Wijayanto, D. S., & Puspitasari, P. F. (2020). Antecedent factors of vocational high school students' readiness for selecting careers: A case in Indonesia. *Cakrawala Pendidikan*, 39(3), 633–644. <https://doi.org/10.21831/cp.v39i3.32310>
- Miller, C. L., & Hough, T. (2024). Effectiveness of work-based learning training in secondary family and consumer sciences. *Family and Consumer Sciences Research Journal*, 52(4), 347–367. <https://doi.org/10.1111/fcsr.12517>
- Muslihati, Sobri, A. Y., Voak, A., Fairman, B., & Wonorahardjo, S. (2023). Engaging With Industry Through Internships in Order to Acquire the Skills, Knowledge and Attitudes for the World of Work: The Indonesian Student Experience. *Journal of Higher Education Theory and Practice*, 23(9). <https://doi.org/10.33423/jhetp.v23i9.6125>
- Ndung'u, K., & Obae, R. (2020). Effects of Career Placement by KUCCPS among the Undergraduate Students in Public Universities in Kiambu County, Kenya. *International Journal of Research and Innovation in Social Science*, 4(12). <https://doi.org/10.47772/IJRIS.2020.41216>
- Neary, S. (2025). Can aspiration kill local community? Challenges for young people and career practitioners in Sri Lanka. *Journal of the National Institute for Career Education and Counselling*, 31(1), 23–28. <https://doi.org/10.20856/jnicec.3105>
- Peng, S., Chitranun, T., & Chansirisira, P. (2025). Enhancing Student Counseling Management in Vocational Undergraduate Colleges: Development of an Integrated Approach in Nanchang, China. *Journal of Education and Learning*, 15(1), 231. <https://doi.org/10.5539/jel.v15n1p231>
- Peters, M., Aubert, C., Rochet, F., Pagés, C., & Bullini, F. (2023). Skills Alignment for Lifelong Learners in Higher Education: Smart Catalogues for Reskilling and Upskilling Pathways. *Ubiquity Proceedings*. <https://doi.org/10.5334/uproc.71>
- Plasman, J., & Thompson, C. (2023). The value of informal learning within work-based learning: The economic benefits of WBL. *International Journal of Training and Development*, 27(3–4), 305–326. <https://doi.org/10.1111/ijtd.12299>
- Quew-Jones, R. J., & Rowe, L. (2022). Enhancing the degree apprenticeship curriculum through work-based manager and mentor intervention. *Journal of Work-Applied Management*, 14(2), 242–256. <https://doi.org/10.1108/JWAM-03-2022-0015>
- Rahdiyanta, D., Nurhadiyanto, D., & Munadi, S. (2019). The effects of situational factors in the implementation of work-based learning model on vocational education in Indonesia. *International Journal of Instruction*, 12(3), 307–324. <https://doi.org/10.29333/iji.2019.12319a>
- Ramadhan, N. G., Purnomo, Widiyanti, Suhartadi, S., & Purnawirawan, O. (2025). Model of Education System in Indonesia Vocational High Schools Based on the Aspects School Cooperation with Industry Through Work-Based Learning to Improve Sustainable Development Goals (SDGs). *Journal of Lifestyle and SDGs Review*, 5(3), e05013. <https://doi.org/10.47172/2965-730x.sdgsreview.v5.n03.pe05013>
- Sasmitha, D., Shan, N., Wulandari, S., Putra, R. Y., & Jayadi, F. (2023). Analysis of Teacher Career Selection and Development at the Bandung University Foundation Based on Life Span Theory, Super Theory (Crisis and Transition in Adult Careers). *Assessment: Journal of Counseling Guideline*, 1(2). <https://doi.org/10.59784/asesmentjournalofcounselingguidance.v1i2.15>
- Sawyer, A. (2023). Globalisation and tax administration – a New Zealand perspective. *EJournal of Tax Research*, 21(2), 358–382. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85200117707&partnerID=40&md5=62b2779ffa9bae8afbd441076b5>

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- Shi, J. (2024). Research on the current situation and countermeasures of student employment management in higher education institutions based on multiple regression analysis. *Applied Mathematics and Nonlinear Sciences*, 9(1). <https://doi.org/10.2478/amns.2023.2.00362>
- Sinaga, R. E., Daharnis, & Ildil. (2025). *Literature Review: An Analysis of the Effectiveness of Career Readiness of High School Students Using Super Life Span Theory*. <https://doi.org/10.58432/mahir.v4i1.1216>
- Soares, J., Carvalho, C., & Silva, A. D. (2022). A systematic review on career interventions for university students: Framework, effectiveness, and outcomes. *Australian Journal of Career Development*, 31(2), 81–92. <https://doi.org/10.1177/10384162221100460>
- Tütlys, V., Buligina, I., Dzelme, J., Gedvilienė, G., Loogma, K., Sloka, B., Tikkanen, T. I., Tora, G., Vaitkutė, L., Valjataga, T., & Ümarik, M. (2022). VET ecosystems and labour market integration of at-risk youth in the Baltic countries: implications of Baltic neoliberalism. *Education and Training*, 64(2), 190–213. <https://doi.org/10.1108/ET-09-2021-0349>
- Ültanır, E. (2012). The Factors Affecting Career Guidance and Current Status of Career Guidance Services in Turkey. *Problems of Education in the 21st Century*, 48. <https://doi.org/10.33225/pec/12.48.135>
- Vats, S., & Malik, N. (2024). Effectiveness of Vocational Guidance Program in School: A Comprehensive Analysis. *International Journal of Scientific Research and Engineering Development*, 7(6), 434–440.
- Voeller, J. (2023). New Higher Education Model? Degree Apprenticeships as a Strategy to Modernize Apprenticeships: Rationale, Current Development in the U.S., and a Conceptual Framework. *International Journal for Research in Vocational Education and Training*, 10(2), 220–238. <https://doi.org/10.13152/IJRVT.10.2.4>
- Wang, D., Li, Y., & Wang, G. (2024). A systematic review on career interventions for high school students. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1461503>
- Wang, Z., Ek-Iem, B., Kaewtip, S., Panyadee, C., & Jitpakdee, P. (2025). Understanding Graduate Employment Lag and Strategic Responses in Applied Universities: A Case Study of Henan Province, China. *International Journal of Sociologies and Anthropologies Science Reviews*, 5(4), 1027–1040. <https://doi.org/10.60027/ijssar.2025.7826>
- Yahui, S., & Dagogo, B. H. (2025). *University Graduates and Employment Challenges: Causes, Impacts, and Countermeasures*. <https://doi.org/10.59088/pij.v4i3.81>
- Yoa, G., Gu, M., Chen, H., Liu, Y., Xin, Z., Ning, Y., Yi, J., & Luo, D. (2023). An In-depth Study on the Teaching Reform of the Course “Career Development and Employment Guidance for College Students” in Vocational Colleges in the Information Age. *International Journal of New Developments in Education*, 5(24). <https://doi.org/10.25236/ijnde.2023.052406>
- Yusupova, N. G., & Skudareva, G. N. (2018). *Ongoing Pedagogical Education In The Context Of Education Innovation Cluster*. 860–869. <https://doi.org/10.15405/epsbs.2018.09.02.101>
- Кукса, Т., & Штика, Ю. (2024). Організаційні засади дуальної освіти в країнах Європейського Союзу. *Педагогічні Науки: Теорія, Історія, Інноваційні Технології*, 486. <https://doi.org/10.24139/2312-5993/2024.05/486-495>