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A Systematic Literature Review on Work-Based Learning: Trends, Challenges, and Future Directions

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Abstract: This study aims to explore the trends, challenges, and future directions of Work-Based Learning (WBL) across various educational and occupational contexts. By synthesizing findings from a wide array of studies, this review identifies key trends in WBL implementation, addresses the challenges faced by stakeholders, and highlights potential future research areas. The keywords used in this review were mainly: "Work-Based Learning," "Technical Vocational Education and Training (TVET)," "apprenticeships," "internships," "cooperative education," "practical learning," and "vocational education." This study explores all publications examining work based learning published from 1984-2024. The articles were selected according to the following criteria: (a) peer-reviewed original research published in international journal, (b) published in English, (c) in work-based learning context. Research articles selected were found through Scopus, Web of Science, Google Scholar, ERIC, and PubMed. Information is also collected using keywords identified using various search engines such as Google and AI-based GPT and analyzed using various research work analysis frameworks to identify, explore, and interpret trends, challenges, and future directions of work-based learning. The review covers WBL across multiple sectors, including vocational education, higher education, and professional development. The findings suggest that while WBL offers substantial benefits for students, educators, and employers, there are persistent challenges related to implementation, assessment, and equitable access.

Keywords: Challenges, Future Directions, Trends, Work Based Learning

A. Introduction

Technical Vocational Education and Training (TVET) is a form of education that focuses on developing practical and professional skills to prepare students to enter the workforce directly (Gonczi, 2020; Suharno et al., 2020). The development of vocational

education globally has made significant progress in recent decades, along with the increasing need for skilled workers in various industrial sectors (Eichhorst et al., 2012; Spöttl & Windelband, 2021). The rapid changes in technology and globalization have made many countries realize the importance of vocational education to meet the needs of the labor market (Brown & Lauder, 1996). Vocational education helps reduce the gap between the skills needed by industry and the skills possessed by general education graduates (Okolie et al., 2020). Sectors such as information technology, manufacturing, health, and tourism increasingly require workers with specialized skills provided through vocational education (Baum, 2002; Lynch, 2000).

In many countries, TVET is increasingly integrated with industry through strategic partnerships between educational institutions and companies. This allows learners to gain practical experience through internships, on-the-job training, and hands-on mentoring from professionals in the field. This collaboration also ensures that TVET curricula remain relevant to technological developments and market needs (Naziz, 2019). Many countries have increased their investment in TVET as part of their strategy to improve economic competitiveness (Gyimah, 2020). With globalization, vocational education is no longer limited to the local context. Many countries are now working to create international standards in vocational education, so that the skills acquired can be recognized globally (Litvinenko et al., 2022). For example, international certification and accreditation in fields such as information technology and tourism provide opportunities for graduates to work abroad.

Competency-based education, where learners are evaluated based on their mastery of certain skills, is increasingly popular in vocational education (Chantanathas et al., 2023). This model emphasizes real results that can be applied directly in the world of work, unlike traditional education which focuses more on theory. Work-Based Learning (WBL) has gained global attention as an essential strategy for equipping students and professionals with the skills necessary to succeed in the workforce (Wang et al., 2024). WBL models are implemented across a spectrum of educational settings, ranging from vocational education to higher education and professional training. WBL refers to structured educational experiences that take place in real work environments, allowing learners to apply academic knowledge to practical tasks. WBL is an educational approach that combines hands-on experience in the workplace with academic or vocational learning.

WBL is essential in improving practical skills, especially in the context of vocational education (Suyitno & Pardjono, 2018). This method provides opportunities for students to gain knowledge and skills through real-world experiences in the workplace, where they can apply the theories learned in class in practical situations. WBL allows students

to learn directly from the world of work, facing real challenges and situations. This experience not only helps students master technical skills, but also fosters soft skills, such as communication, teamwork, time management, and problem-solving abilities (Dogara et al., 2020). In many traditional education programs, students often struggle to understand how the theories they learn can be applied in the real world. With WBL, students can see firsthand how the theories are used in the workplace. For example, a vocational engineering student can practice knowledge of machines in a workshop or factory, strengthening their understanding and skills. The practical work experience gained through WBL makes graduates more employable than those who only rely on classroom-based education (Alfeld et al., 2013). They are accustomed to a professional work environment, making it easier to adapt when entering the job market. This makes them more desirable to companies, as they already have relevant experience and skills.

WBL provides students with the opportunity to interact with professionals in their field of interest. This can open up opportunities for mentorship, referrals, or even job offers after they complete their education. This network is also useful for advancing their future career. In WBL programs, students often receive direct guidance from experts in their fields. Students can receive direct, constructive feedback on their performance, which helps them refine their skills and understand what needs to be improved. This kind of practical learning is not always found in the classroom. The skills needed in the workplace are constantly evolving, especially with the rapid advancement of technology. Through WBL, students can experience these developments firsthand and adapt to current industry needs. It also allows educational institutions to update their curriculum to stay relevant and in line with market demand (Gibson & Tavlaridis, 2018).

In addition to technical skills, WBL also builds a strong work ethic, including discipline, responsibility, and punctuality (Bremer & Madzar, 1995). Learners learn to work in an organized structure, follow rules, and meet quality standards set by the company. WBL combines formal learning (from school or training) with informal learning in the workplace. This provides a more holistic learning experience, where learners not only master technical knowledge but also understand the work culture, employee interactions, and how various factors interact in running a business or operation. According to Dewey (1938), effective education must link theory and practice. In many countries, there is a gap between the skills that graduates have and the skills required by the industry (Nanda Nur Rafiana, 2023; Rikala et al., 2024). WBL helps to bridge this gap by providing relevant training directly in the workplace, ensuring that graduates have the skills that match the demands of the job (Lim et al., 2024).

Through WBL, learners often feel more motivated because they can immediately see the results of what they are learning. Involvement in real work provides a higher sense of achievement and relevance than learning that is purely theoretical. Research shows that WBL not only improves students' employability but also enhances their understanding of industry practices and workplace dynamics (Moo, 2024; Thapa, 2024). It is gaining recognition from both educators and employers for its ability to create a skilled workforce that meets the demands of an evolving labor market (Lester & Crawford–Lee, 2023).

This review aims to examine the trends, challenges, and future directions of WBL. Specifically, the review addresses the following objectives:

1. Identify key trends in the development and implementation of WBL programs.
2. Understand the challenges and barriers encountered in WBL delivery.
3. Propose future research directions to further the understanding and effectiveness of WBL.

B. Methods

A systematic literature review methodology was adopted to ensure a comprehensive and structured synthesis of the available literature. The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Vrabel, 2015), ensuring a rigorous approach to selecting and analyzing relevant research.

Literature Search

A search of peer-reviewed journal articles, conference papers, and reports was conducted using academic databases such as Google Scholar, Scopus, Web of Science, ERIC, and PubMed. The search terms included "Work-Based Learning," "Technical Vocational Education and Training (TVET)," "apprenticeships," "internships," "cooperative education," "practical learning," and "vocational education."

Inclusion and Exclusion Criteria

Inclusion Criteria: Studies focusing on WBL in educational and professional settings, published between 1984 and 2024, in English, and discussing WBL in various sectors (vocational, higher education, professional training) were included. Exclusion Criteria**:** Articles not focused on WBL, not peer-reviewed.

Data Extraction and Synthesis

The selected studies were reviewed, and key data points were extracted, including research context, methodology, key findings, and implications for practice. A thematic analysis was used to identify emerging trends, challenges, and gaps in the literature.

C. Results and Discussion

Work-Based Learning: Concepts and Definitions

Work-Based Learning refers to a spectrum of educational practices where learning occurs in a workplace setting, with an emphasis on the practical application of knowledge. The theoretical framework of WBL is grounded in experiential learning theory (Kolb, 1984), which emphasizes the importance of learning through experience. Common models of WBL include:

1. Apprenticeships: Programs that combine classroom instruction with paid, hands-on work experience (Sattler et al., 2011). Apprenticeships have been widely adopted in fields like construction, healthcare, and engineering (Vaughan, 2017).
2. Internships: Typically, short-term placements where learners gain industry experience and develop specific skills (Van Mol, 2017).
3. Cooperative Education (Co-op): Alternating periods of academic study with full-time work in a related field, helping students apply theoretical knowledge in practical settings (Budgen & Gamroth, 2008).
4. Job Shadowing: Brief, observational experiences allowing learners to witness professionals in action, often used in healthcare and business sectors (von der Lancken & Gunn, 2019).

Trends in Work-Based Learning

A review of the literature reveals several key trends in the development and implementation of WBL programs.

1. Increasing Emphasis on Vocational Education and Training (VET)

Vocational education and training (VET) plays a vital role in preparing a skilled workforce ready to meet the needs of the evolving labor market. As industry and technology become increasingly complex, VET is becoming an essential element in addressing global employment challenges (Thi et al., 2024). In many countries, particularly in Europe, WBL is deeply integrated into vocational education systems

(Bahl & Dietzen, 2019). Germany's dual education system is often held as a model, where students split their time between classroom instruction and apprenticeships in industries like manufacturing and services (Deissinger & Gonon, 2021; Sloane, 2014). This approach is being replicated in various forms across Europe, Asia, and even in parts of Africa (Eichhorst et al., 2012).

The success of the dual education model in Germany has prompted many countries in Europe and beyond to adapt elements of the system. In Europe, countries such as Switzerland, Austria, and the Netherlands have integrated a similar approach, emphasizing the importance of cooperation between industry and educational institutions in curriculum development and training (Deissinger & Gonon, 2021; Powell et al., 2012). In fact, the system has also expanded to non-European countries, such as Japan and some African countries (Li & Pilz, 2023). These countries have also adapted their systems, taking into account local labor market needs and cultural differences. For example, in some Asian countries, there is a greater emphasis on work discipline and intercultural communication skills, which are essential in an increasingly connected global economy.

2. Expansion of WBL in Higher Education

WBL is no longer limited to vocational and technical fields; it is increasingly being incorporated into higher education. Universities are integrating internships, cooperative education, and industry partnerships into academic curricula to enhance student employability (Franco et al., 2019). Fields such as healthcare, engineering, and business management are leading this integration (Urquía-Grande & Pérez Estébanez, 2020). WBL is increasingly being recognized and integrated into higher education as universities and other higher education institutions strive to produce graduates who are job-ready and equipped with the practical skills necessary for today's dynamic workforce. Traditionally, WBL was more associated with vocational training, apprenticeships, and technical fields, but the trend in higher education is shifting toward including WBL in a broader range of academic programs such as business, healthcare, engineering, and the social sciences.

Higher education institutions are incorporating WBL as a critical component of degree programs to enhance students' employability and to address the demands of industries that are increasingly looking for practical experience in addition to theoretical knowledge. Universities are now collaborating more with industry partners to create pathways that allow students to gain hands-on experience while completing their academic qualifications (Aithal & Maiya, 2023). One of the key drivers of WBL expansion in higher education is the formation of partnerships between educational

institutions and businesses. These partnerships ensure that WBL is not just an academic exercise, but a vital part of professional preparation. These collaborations can take various forms, such as: Joint Curriculum Development**:** Academic institutions and industries co-design courses to ensure that the curriculum aligns with the current needs of the workforce (Valiente Bermejo et al., 2022). For example, engineering programs may work with technology companies to incorporate the latest tools and methodologies into their teaching. Employer Sponsorships and Fellowships: Employers may sponsor WBL programs, providing funding for placements, equipment, or even offering fellowships for students who show promise in certain fields. These partnerships also allow employers to play a role in developing the next generation of talent while creating a pipeline for potential recruits.

WBL in higher education provides students with an opportunity to build both technical and soft skills. In addition to specific industry-related competencies, students enhance their communication, teamwork, leadership, and problem-solving skills, which are crucial in today's complex job markets. Studies show that graduates with WBL experience are more likely to find employment quickly after graduation (Plasman & Thompson, 2023). Soft skills like time management, adaptability, and collaboration are often better developed through WBL because students experience real-world challenges and interactions that they might not encounter in a traditional classroom setting. This blend of technical expertise and interpersonal skills significantly boosts graduates' employability.

Despite these challenges, the future of WBL in higher education is promising, especially with advances in technology enabling remote work and virtual internships. This has made it easier for students to gain WBL experiences with international companies or those located far from their physical location. The expansion of Work-Based Learning in higher education reflects a broader understanding of the value of practical experience as part of academic training. As universities continue to partner with industries and adopt more flexible learning models, WBL will play an increasingly central role in preparing graduates for successful careers in a rapidly evolving workforce. By addressing the challenges of accessibility, quality control, and scalability, higher education institutions can further improve WBL's impact and relevance across diverse academic fields.

3. Digital Transformation and Remote WBL

Digital technologies have revolutionized WBL, particularly in light of the COVID-19 pandemic, which necessitated a shift toward remote learning and virtual internships (Lester & Crawford–Lee, 2023). Virtual WBL platforms are now used to provide

simulations and remote work experiences, offering students the flexibility to engage with global companies (Perusso & Wagenaar, 2024). However, questions about the efficacy of remote WBL remain, especially in fields requiring hands-on skills (Rienties et al., 2023). Digital transformation is reshaping every sector of the economy, and education is no exception. One of the significant changes brought by digital transformation is the growing potential for remote WBL. The traditional forms of WBL, such as in-person internships, apprenticeships, and cooperative education, are being supplemented and in some cases replaced by virtual and remote learning opportunities. This shift has created new opportunities for students and institutions but also brings challenges related to implementation, engagement, and quality.

The digital transformation of WBL has brought several advantages, especially in terms of flexibility, accessibility, and scalability (Lester & Crawford–Lee, 2023): Increased Accessibility, remote WBL provides opportunities for students who might not otherwise have access to workplace learning due to geographic, financial, or logistical barriers. Students from rural areas, for example, can now engage in internships or cooperative education programs with companies located in major urban centers or even internationally, without the need to relocate. Flexibility, remote WBL allows students to integrate work experience into their schedules more flexibly. They can complete internships while balancing academic commitments or even personal responsibilities, such as caring for family members. This flexibility is particularly important for adult learners or students who are already working part-time or full-time. Development of Digital Skills, remote WBL provides a unique opportunity for students to develop the digital skills that are increasingly required in the modern workforce. Students working remotely must become proficient in digital communication, project management software, and collaboration tools, all of which are highly valued by employers. Additionally, working in a digital environment can help students become more self-directed and improve their time management skills. Global opportunities, with remote WBL, students can take part in international work experiences without the need for travel. This allows them to gain exposure to global markets, diverse cultures, and international business practices, which are valuable in today's interconnected world. Such experiences are increasingly important as companies operate in a globalized economy.

Challenges of Digital and Remote WBL, despite its advantages, the digital transformation of WBL also presents several challenges (Rienties et al., 2023): lack of Hands-on Experience, for certain fields, especially those that require practical, hands-on skills, such as healthcare, engineering, or the trades, remote WBL may not fully substitute for in-person experiences. While simulations and VR can help fill the gap, they cannot completely replicate the real-world complexity of some tasks. For example,

nursing students may benefit from virtual patient simulations, but they still need clinical hours with actual patients to meet certification requirements. Engagement and motivation, remote WBL relies heavily on self-discipline and motivation, as students work independently without the physical presence of mentors or peers. This can lead to issues with student engagement, particularly for those who struggle with time management or self-direction. Institutions and employers need to develop strategies to keep students engaged in remote work, such as regular check-ins, clear expectations, and structured feedback mechanisms. Digital divide, not all students have equal access to the technology needed for remote WBL. Issues such as unreliable internet access, outdated devices, or lack of access to the necessary software can limit participation, especially for students from disadvantaged backgrounds. Institutions must work to bridge this digital divide by providing resources and support, such as loaning devices or offering training on digital tools. Quality assurance and supervision, Maintaining the quality and rigor of WBL programs in a remote setting can be challenging. Supervisors may find it difficult to monitor students' progress, provide timely feedback, or ensure that students are meeting the required learning outcomes. Moreover, remote internships may be more prone to a lack of structure, where students are left with less guidance or meaningful work.

4. Integration of Soft Skills Development

Research highlights the growing demand for soft skills, such as communication, teamwork, and adaptability, in WBL programs (Autsadee & Phanphichit, 2024; Wang et al., 2024). Employers expect WBL graduates not only to possess technical expertise but also to demonstrate strong interpersonal skills (Dogara et al., 2020). In recent years, there has been a significant increase in the demand for soft skills in the workplace, and this is increasingly becoming a key focus in Work-Based Learning (WBL) programs. Soft skills include communication, teamwork, adaptability, leadership, time management, and problem-solving skills, which are considered very important by employers. Research shows that a person's success in the workplace depends not only on technical skills, but also on their ability to interact with colleagues, adapt to change, and contribute effectively in a team environment.

Challenges in Work-Based Learning

Despite its increasing adoption, WBL faces several persistent challenges that affect its implementation and outcomes.

1. Inequality of Access

Access to WBL opportunities is often inequitable, with socioeconomic, geographic, and cultural factors limiting some students' participation (Hora et al., 2021). Students from marginalized communities may lack the networks or financial resources needed to secure placements, leading to a "WBL opportunity gap". In countries with large rural populations, the geographic distribution of WBL programs can further exacerbate inequality (Park & Inocencio, 2020). Dual education systems have proven effective in many countries, but their implementation outside Europe faces a number of challenges. In some developing countries, for example, the lack of infrastructure and effective cooperation between industry and educational institutions can be a barrier (Khamis et al., 2021). The lack of financial support to develop education systems that involve internships and on-the-job training is also often a major obstacle. Many vocational education institutions in Indonesia, especially those in rural or remote areas, experience limitations in terms of infrastructure and training facilities. Inadequate laboratories, training aids, and practical equipment can hinder effective learning processes. In certain sectors such as technology and manufacturing, modern and sophisticated facilities are needed to produce a competent and work-ready workforce.

2. Alignment between Educational Institutions and Industry

One of the most significant challenges is ensuring alignment between academic curricula and the evolving needs of the labor market. Studies reveal that in many cases, there is a mismatch between what is taught in classrooms and the skills required by employers (Cappelli, 2015; Somers et al., 2019). This disconnect can result in underprepared graduates and frustration among industry partners. One of the biggest challenges in Indonesia is the mismatch between the curriculum taught in educational institutions and the real needs in the workplace (Ali et al., 2020; Suharno et al., 2020). Many vocational education programs do not fully reflect technological changes and rapidly evolving industry demands, especially in sectors such as information technology, modern manufacturing, and renewable energy. As a result, graduates often struggle to adapt to the demands of more specific, technically skilled jobs.

3. Quality Assurance and Standardization

The quality of WBL programs varies considerably, both within and across industries. A major issue is the lack of standardization in how WBL is delivered and assessed, particularly in countries where regulations are weak or inconsistent (Perusso & Wagenaar, 2022). Poor-quality internships and apprenticeships, where learners perform menial tasks without proper supervision or mentorship, undermine the educational

value of WBL (Shi & Bangpan, 2022). The quality of WBL programs can vary greatly between industry sectors. For example, the technology or healthcare industries often have more structured internship programs, with more in-depth mentorship and opportunities to develop technical skills. In contrast, other sectors, such as hospitality or retail, may offer a more limited experience, with interns more often performing administrative or manual labor tasks, without direct involvement in business processes or technical skill development.

4. Sustainability of WBL Programs

The sustainability of WBL programs is often tied to economic conditions and labor market demand (Plasman & Thompson, 2023). During economic downturns, WBL opportunities may decline as companies reduce hiring and training budgets. Furthermore, some industries face cyclical challenges that affect their ability to consistently offer WBL placements (Wang et al., 2024). The sustainability of the WBL program also depends heavily on ongoing collaboration between educational institutions and the industrial sector. The sustainability of the WBL program requires a mutually beneficial relationship between the world of education and the world of industry, where both parties feel that they gain clear benefits from the program. The ever-changing job market and rapid technological developments make it critical to adapt WBL programs to ensure their relevance and sustainability.

Future Directions for Work-Based Learning Research and Practice

1. Enhancing Accessibility and Equity

To address access inequalities, policymakers and educational institutions must develop targeted interventions that improve WBL opportunities for underrepresented groups (Lasrado et al., 2024). Potential strategies include providing financial incentives, creating partnerships with local businesses in underserved areas, and fostering more inclusive recruitment practices. Future research should examine the effectiveness of such interventions across different cultural and socioeconomic contexts.

2. Strengthening Partnerships between Education and Industry

Collaboration between educators and industry is critical to the success of WBL programs. Research should focus on developing sustainable models of partnership that balance the needs of both sectors (Louche et al., 2021). Co-designing curricula with industry stakeholders ensures that learners gain relevant skills, while also benefiting employers by producing more qualified graduates (Manwaring et al., 2020). Work-

Based Learning (WBL) thrives on strong, collaborative partnerships between educational institutions and industries. These partnerships are critical for aligning educational outcomes with the demands of the labor market, ensuring that students gain the skills, knowledge, and experience needed for success in their careers. However, fostering and maintaining such partnerships requires deliberate strategies and actions from both education providers and employers. To create a successful partnership, educational institutions must align their curricula with the evolving needs of industry.

This requires constant dialogue and feedback between educators and industry representatives to ensure that WBL programs are developing skills that match current job market requirements. Strong partnerships rely on effective, ongoing communication between educational institutions and industry. Successful partnerships are based on mutual trust, with both education providers and industry partners committed to long-term collaboration. This requires transparency, accountability, and shared responsibility in the WBL process. For WBL programs to be successful, it's important that the right students are matched with appropriate industry placements.

Collaborative efforts between educational institutions and employers can streamline the recruitment and selection process, ensuring that students with the relevant skills and interests are placed in WBL opportunities that suit their career goals. Mentorship is a critical component of WBL, providing students with guidance and feedback throughout their work placements. Strengthening partnerships involves creating robust mentorship programs where industry professionals play an active role in student development. Digital tools can enhance collaboration between educational institutions and industry partners, especially when geographic constraints or busy schedules make face-to-face meetings difficult. Technology can also improve the quality and accessibility of WBL programs. For WBL to be effective, both educational institutions and industries need to invest in the necessary resources and infrastructure. This includes facilities, equipment, and the human capital required to support students during their placements.

3. Embracing Digital Innovations in WBL

As digital tools continue to evolve, WBL programs must adapt to incorporate virtual learning environments, simulations, and online collaboration tools. Future research should assess the long-term impact of digital WBL on student outcomes, particularly in fields that require hands-on experience (Wang et al., 2024). Virtual reality (VR) and artificial intelligence (AI) hold promise for transforming WBL by offering immersive, interactive learning experiences (Aithal & Maiya, 2023).

4. Developing Comprehensive Evaluation Frameworks

Comprehensive evaluation frameworks are necessary to measure the effectiveness of WBL programs across different industries and educational contexts. These frameworks should go beyond technical skills and include soft skills, employability, and long-term career progression (Kotsiou et al., 2022). Longitudinal studies tracking WBL participants over time will be key to understanding the lasting impact of these programs on career outcomes (Plasman & Thompson, 2023).

5. Policy Development and Support

Policy development plays a vital role in promoting and sustaining WBL by creating the regulatory, financial, and operational frameworks that ensure effective collaboration between educational institutions and industries (Autsadee & Phanphichit, 2024). Policies support the integration of WBL into national and regional education systems, provide incentives for businesses, and protect the rights and responsibilities of all stakeholders. Without a supportive policy environment, the expansion and quality of WBL programs may be hindered. Governments at all levels (national, regional, and local) play a crucial role in establishing policies that enable and promote WBL. Effective policies provide a structured framework within which educational institutions and employers can collaborate, ensuring that WBL programs meet both academic and labor market needs. Effective WBL policies require the input and collaboration of both education providers and industry stakeholders. Governments must work closely with schools, colleges, universities, and employers to develop policies that reflect the needs and realities of the workforce and the educational system.

Financial policies are essential for incentivizing participation in WBL programs, especially for businesses. Without the right financial support, many companies may be reluctant to take on the responsibilities of training students or interns. Governments can provide several types of financial support to make WBL more appealing for both employers and students. Government policy is critical in shaping the future of WBL. Policies that incentivize employer participation, standardize quality assurance, and provide funding for WBL programs will play a central role in expanding and improving access to WBL opportunities (Jackson, 2024). Future research should focus on evaluating the effectiveness of various policy initiatives in different regional and national contexts.

Policy development and support are essential for the success and expansion of Work-Based Learning (WBL) programs. By creating clear regulatory frameworks, offering financial incentives, ensuring quality, and addressing legal issues, governments can

foster strong partnerships between educational institutions and industry. These policies help create a workforce that is prepared for the demands of the modern labor market, while also ensuring that students receive meaningful, high-quality learning experiences. As WBL continues to grow, ongoing policy development and support will be crucial for sustaining and scaling these programs across different sectors and regions.

D. Conclusion

Work-Based Learning is a vital component of modern education systems, offering significant benefits to learners, educational institutions, and employers. However, challenges related to access, quality, and alignment with industry needs must be addressed to fully realize its potential. This systematic literature review has identified key trends in the evolution of WBL, highlighted existing challenges, and proposed future research directions. By enhancing the accessibility, quality, and relevance of WBL programs, stakeholders can better prepare learners for the demands of the contemporary workforce and contribute to the ongoing development of a skilled and adaptable labor force.

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