

Leveraging quality standards for enhanced work-integrated learning outcomes in the 21st century: An African perspective

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This study examines the critical role of quality standards in improving work-integrated learning (WIL) outcomes in Africa. As higher education institutions increasingly adopt WIL to enhance graduate employability, inconsistencies in quality assurance frameworks and limited industry collaboration hinder their effectiveness. Using a systematic literature review of WIL practices across Africa, the study explores how quality standards shape learning experiences and employability outcomes. Findings reveal regional disparities in WIL implementation, driven by the digital divide and weak industrial partnerships, particularly in rural settings. Key strategies identified include developing national quality assurance frameworks, strengthening industry-academic linkages, and adopting digital platforms to support virtual placements. The study recommends institutionalizing WIL quality standards, investing in digital infrastructure, and promoting inclusive access to ensure equitable and high-quality learning experiences. These measures can better equip African graduates for an evolving 21st-century workforce.

Keywords: Work-integrated learning, Africa, higher education, employment

Work-integrated learning (WIL) has emerged as a strong educational tool to connect academic knowledge with practical ability and thus enhance student employability. In Africa, where youth unemployment is an ongoing challenge, WIL holds significant potential to close critical skills gaps and better align academic curricula with industry needs. Zegwaard and Pretti (2023) argue that the development and implementation of WIL programs, guided by rigorous quality standards, is essential to ensure that programs remain relevant and effective in preparing graduates for the rapidly changing 21st century workplace shaped by the Fourth Industrial Revolution (4IR).

The African landscape presents various opportunities and challenges for WIL implementation. Growing sectors such as manufacturing, technology, and agriculture create numerous prospects for WIL that combines academic insights with work experiences (Björck, 2021). Yet, disparities in technological access, infrastructure, and educational resources are barriers to scaling up WIL programs, especially in the remote and underprivileged regions (Fleming & Haigh, 2017a). There is a need to develop and implement quality standards that ensure consistent, equitable, and quality WIL experiences across the continent (Ferns & Arsenault, 2023; Zegwaard & Pretti, 2023). This must collaboratively be done by academic institutions, governments, and industry to maximize WIL benefits.

In response to the global need for standardization and best practices in WIL, the World Association for Cooperative Education (WACE) developed the *Global Quality WIL Framework* in 2024. This framework provides a structured approach to ensuring quality WIL by outlining key responsibilities and practices across three core phases, including before, during, and after the WIL experience. It emphasises stakeholder collaboration, inclusive access, reflective assessment, and institutional governance, making it highly relevant for African contexts where policy and implementation frameworks are still evolving

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(WACE, 2024). Integrating such global quality benchmarks offers African institutions an opportunity to elevate the design and impact of their WIL programs while ensuring alignment with both international standards and local developmental priorities.

This paper examines how leveraging quality standards can improve WIL outcomes in the 21st century, particularly within African contexts. It explores the role of policy frameworks, industrial collaboration, and education reforms in ensuring that WIL programs remain adaptive to global trends and local needs (Ferns & Comfort, 2014). It further highlights the importance of adopting appropriate digital tools and technologies to mitigate barriers such as digital divides, to increase access and equitability of WIL opportunities across the continent. This study explores how leveraging quality standards can enhance WIL outcomes in the 21st century, with a specific focus on African contexts. The next section presents the problem statement.

PROBLEM STATEMENT

Changes in 21st century workplaces are driven by globalization, improved technology, and evolving labor market demands (C. Adams & Jones, 2022). Presently, due to the continued startlingly high rates of youth unemployment in Africa, there is a need to equip graduates with the knowledge and competencies required to thrive in this rapidly changing world. WIL is one proposed intervention. However, inconsistent program quality, few industry connections, and unequal access to learning opportunities, especially in rural and under-resourced areas, often compromise the efficacy of WIL in Africa (Ajjawi et al., 2022).

One major challenge to implementing WIL in Africa is the lack of standardized quality standards that regulate the development, delivery, and evaluation of such programs. WIL projects are often fragmented and involve industry partners demonstrating variable degrees of commitment and engagement (Björck, 2021). Such inconsistencies in students' experiences make it hard to ensure that WIL programs consistently prepare graduates to meet the needs of the modern workplace. Furthermore, it is unclear whether the intended outcomes of WIL initiatives are achieved because most do not have monitoring and evaluation mechanisms (Billett, 2015).

Infrastructure deficiencies and the digital divide disproportionately affect students from rural and economically disadvantaged areas, thus exacerbate the challenges. Consequently, most students cannot participate in meaningful WIL experiences to prepare them to enter careers in digitally driven industries because they have not had adequate access to modern technical tools and platforms. According to J. D. Adams et al. (2019), this disparity has widened the employment gap between students from urban and rural areas, therefore perpetuating existing inequalities.

Furthermore, the potential for WIL programs to respond to Africa's broader socioeconomic concerns is hampered by the absence of integration frameworks that establish an all-rounded quality benchmark. To truly actualize sustainable development, WIL requires robust quality assurance systems that ensure all students, irrespective of their various geographic or socio-economic backgrounds, have access to excellent, industry-relevant learning opportunities (Brewer et al., 2020). To improve employability and economic opportunities for Africa's youth, it is essential to address the existing gaps by linking WIL outcomes with the skills and competencies in demand in today's workforce. The subsequent section discusses the aim of the study.

AIM OF THE STUDY

This study examines how the implementation of quality standards can enhance WIL outcomes in African higher education institutions. It explores the alignment of WIL programs with industry needs, the role of accreditation and assessment frameworks, and the impact of structured quality assurance measures on student employability and skill development. It further identifies best practices and challenges in ensuring high-quality WIL experiences that contribute to workforce readiness in the 21st century.

The main research question is "How do quality standards in WIL programs influence student employability and skills development in African higher education institutions, and what best practices ensure quality and inclusivity amid regional and infrastructural disparities?"

The related secondary research questions are as follows:

1. What are the dominant quality standards followed in WIL programs, with particular reference to African higher education institutions?
2. How do these quality standards influence the outcomes of WIL for students in terms of employability and skills development?
3. What are the challenges and barriers experienced in implementing quality standards in WIL programs within Africa?
4. What are the emerging best practices that ensure quality and inclusivity in the WIL programs?

SIGNIFICANCE OF THE STUDY

This study provides insights into how quality standards can be utilized to improve outcomes in WIL across Africa. The strategies for improving quality standards can address the challenges in WIL implementation develops more systematic and coherent approaches to WIL, enhancing students' work readiness. Additionally, this study informs policymakers, educators, and industry partners on how to strengthen WIL collaborations to ensure that WIL programs meet both academic and industry expectations. The findings, are thus, valuable for shaping policies aimed at enhancing employability, skills development, and the overall quality of higher education in Africa.

LITERATURE REVIEW

WIL is gradually gaining recognition in both academic and professional circles for its potential to address the issue of graduate employability through authentic, work-based learning (Dean et al., 2023). In light of the persisting problems of youth unemployment and skills mismatches in the region, linking higher education outputs to labor market demands is key in Africa (Campbell & Pretti, 2023). Literature on WIL identifies quality standards as core to ensuring that WIL programs are valued learning experiences and prepare graduates for the challenges in the 21st century workforce (Carpendale & Mitchell, 2023).

The Role of Work-Integrated Learning in Enhancing Employability

WIL is considered an effective method for enhancing employability outcomes, especially in contexts where professional competence cannot be established through theoretical knowledge alone (Carpendale & Mitchell, 2023). A key advantage of WIL is that it provides students with a great opportunity to develop both hard and soft skills (Dean et al., 2023). According to Zegwaard and Pretti (2023), problem-solving, cooperation, and communicative skills are vital in contemporary work

environments where modern workers are expected to manage complicated tasks within diverse teams. The WIL programs can bridge the gap between the education system and the labor market in Africa, where formal employment opportunities are limited (Dean et al., 2023). This is made possible through providing practical work experience for students during their school time before graduation (Zegwaard & Pretti, 2023). However, the quality of these experiences will determine the success of WIL in making students employable.

Studies demonstrate that poorly designed or poorly managed WIL placements have minimal impact on the development of skills and therefore result in poorer student outcomes (African Union, 2021). This justifies the development of regulated quality frameworks that guide the design, implementation, and assessment of the WIL programs. Where such standards are nonexistent, WIL risks being a mere token activity rather than a serious teaching and learning intervention.

Quality Assurance in Work-Integrated Learning Programs

WIL programs should be established based on quality assurance frameworks to ensure that they address industry as well as academic requirements. Ferns and Arsenault (2023) that for any WIL program to be considered effective, it should have clearly defined goals and roles for the academic institution, students, and business partners involved. These should also align with broader learning outcomes so that students can build upon conceptual knowledge by applying it to enhance their practical abilities (WACE, 2024). Quality standards should also specify how student performance is assessed to ensure consistency and fairness across the different placements (Ferns et al., 2014).

However, many regions in Africa are still in the early stages of developing such frameworks (Ferns & Comfort, 2014). Many WIL programs depend on informal agreements between institutions and businesses rather than formal requirements that delineate the quality of these programs (Zegwaard & Pretti, 2023). In the absence of a structured approach, inconsistencies in the learning opportunities are likely; some students may be subjected to quality programs while others may be denied assistance or guidance. Consequently, several African educational institutions have therefore begun to develop their quality assurance processes to bridge this gap (Du Plessis & Majola, 2020). However, more adequate and detailed, nationally accepted standards are still required (Smith et al., 2022).

Infrastructure problems, industrial collaborations, and socioeconomic inequalities are some of the major limiting factors for the successful integration of WIL across Africa (Dean et al., 2023). Of these, the most staggering is the digital divide that prevents students in rural or less privileged areas from effectively participating in work and educational opportunities dependent on technology (Ferns & Arsenault, 2023). For example, most African educational institutions are not at the level where students can be enrolled in WIL programs that require remote placements or the use of certain tools (Ferns & Comfort, 2014). This creates an uneven playing field, with WIL benefits more likely to accrue to students from cities than those from rural areas.

Another challenge relates to the need for industry partners who are prepared and capable of providing good WIL work-field placements (Smith et al., 2022). Sectors such as manufacturing, finance, and technology that have traditionally provided WIL opportunities most African countries, are usually based in the metropolitan areas (Fleming & Haigh, 2017a). This puts the burden of absorbing large numbers of WIL students on a few cohorts of businesses and limits access for students in rural areas (Fleming & Haigh, 2017b). While many of these sectors are less organized and cannot offer the same level of professional exposure, a number of institutions have bypassed this

by developing alternative WIL placements within the public and non-profit sectors (J. D. Adams et al., 2019).

Challenges of Applying OECD Work-Integrated Learning Quality Frameworks in African Settings

Quality assurance frameworks for WIL have largely been developed within organisations for economic co-operation and development (OECD) countries, particularly in regions such as Australia, Canada, and the United Kingdom. While these frameworks, such as those developed by Universities Australia, Co-operative Education and Work-Integrated Learning Canada (CEWIL Canada), and the Quality Assurance Agency for Higher Education (United Kingdom), offer well-structured approaches to integrating academic and experiential learning, they often rest on assumptions that may not hold in non-OECD contexts like Africa.

One key assumption embedded in many OECD-derived frameworks is the existence of mature industry-academic partnerships, where host organisations are willing and able to provide structured placements that align closely with academic goals (Jackson, 2016). However, in many African countries, formal collaboration between universities and industry remains underdeveloped, with limited private sector capacity to absorb large numbers of students for WIL experiences (Billett, 2015). This makes it difficult to implement models that rely on consistent, large-scale employer participation.

Another belief is the availability of institutional resources and digital infrastructure. OECD-based frameworks often recommend digital tracking of learning outcomes, online placement management systems, and student self-assessment tools, all of which presuppose access to stable internet, learning management systems, and administrative staff (Patrick et al., 2008). In contrast, many African institutions face infrastructural deficits, underfunding, and high student to staff ratios, making such frameworks impractical or only partially implementable (Fleming & Haigh, 2017b).

Furthermore, these frameworks tend to emphasise individual student agency in setting goals, reflecting, and engaging with host organisations (Rowe et al., 2012). While valuable, this focus can overlook contextual challenges faced by African students, such as limited exposure to professional environments, language barriers, or cultural expectations that constrain open dialogue in the workplace.

The *WACE Global Quality WIL Framework* attempts to mitigate some of these limitations by providing a more adaptable structure, with a focus on inclusive access and responsiveness to local contexts (WACE, 2024). However, even global models like WACE's must be critically localized. For instance, while the framework advocates for reflection and student goal setting, African institutions may need to develop pre-placement orientation programs to help students unfamiliar with workplace expectations.

Quality WIL frameworks from OECD countries offer valuable guidance but are often shaped by assumptions of robust infrastructure, industry capacity, and institutional maturity. Without adaptation, these models risk becoming aspirational rather than practical for non-OECD regions. Therefore, African stakeholders must critically assess and contextualize these frameworks, aligning them with local economic realities, technological infrastructure, and cultural norms to ensure relevance and impact. The following section presents research methodology.

RESEARCH METHODOLOGY

This study employed a systematic literature review (SLR) approach to understand how leveraging quality standards can contribute to improved WIL outcomes in the 21st century, with a particular focus on the African continent. The SLR method allows for a comprehensive, objective synthesis of existing research. It follows an organized process known as the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), which enables the identification, evaluation, and interpretation of relevant studies. PRISMA is a well-recognized protocol for conducting systematic reviews and is very helpful in structuring literature search and selection processes. PRISMA encourages transparency by the detailed reporting of the inclusion/exclusion criteria of studies, search strategy, and data extraction methods (Kitchenham & Charters, 2007). The SLR methodology enables the identification, evaluation, and synthesis of existing research on the topic to be rigorous, transparent, and replicable. It provides an overall understanding of the current status of WIL in Africa and an overview of emerging best practices and challenges related to quality standards. The SLR follows the guidelines laid out by Kitchenham and Charters (2007), which are widely adopted as a structured approach to undertake a review of the literature. The stages undertaken in the SLR process were therefore divided into five. These included the formulation of research questions, development of inclusion and exclusion criteria, comprehensive search, selection and appraisal of studies, and data synthesis. The review targeted peer-reviewed journal articles, conference papers, and relevant policy documents within the subject of WIL, employability, and quality assurance, specific to African context.

Research Questions

This SLR was therefore informed by the following research questions: What are the dominant quality standards followed in WIL programs, with particular reference to African higher education institutions?; How do these quality standards influence the outcomes of WIL for students in terms of employability and skills development? What are the challenges and barriers experienced in implementing quality standards in WIL programs within Africa?; What are the emerging best practice that ensure quality and inclusivity in the WIL programs, given regional and infrastructural disparities.

Inclusion and Exclusion Criteria

There were thus specific inclusion and exclusion criteria developed to guide the selection of relevant and high-quality studies. Studies published between 2010 and 2025, capturing recent developments about WIL and quality standards, were included. Publications included peer-reviewed journal articles, conference proceedings, and policy documents on WIL programs in Africa. Studies related to quality assurance frameworks, industry partnerships, employability outcomes, or skills development in WIL were also included.

Exclusion Criteria

The study excluded articles that did not explicitly focus on WIL, employability, and quality standards relevant to Africa. Non-English papers were not included to avoid potential bias from the translations. Also, non-peer reviewed sources, opinion editorials, and publication with no empirical data were excluded.

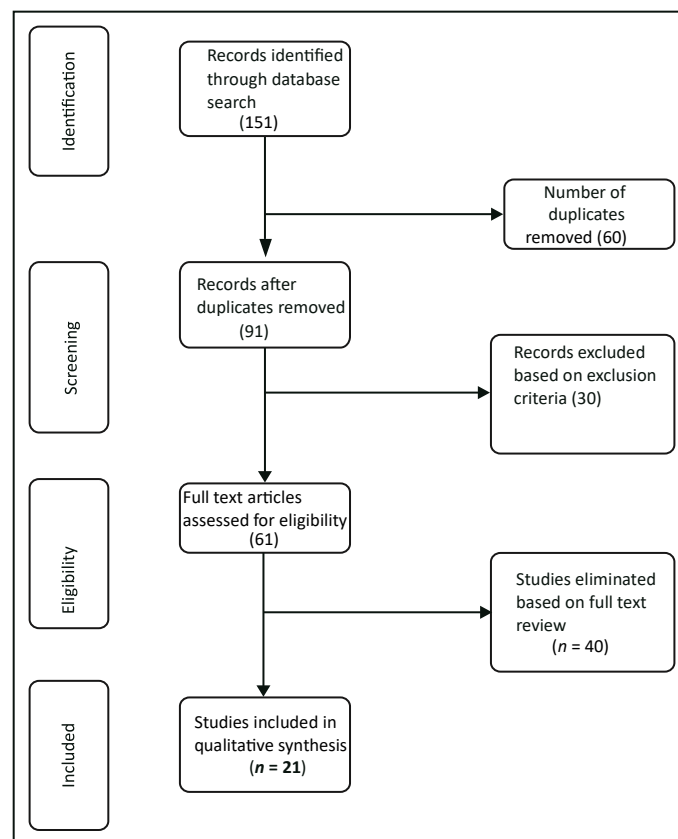
Search Strategy

An extensive search was done over a number of academic databases, including Google Scholar, Scopus, Web of Science, and ERIC (Education Resources Information Center). The following search terms were used: “Work-integrated learning in Africa,” “WIL quality standards,” “employability and WIL in Africa,” “challenges in WIL implementation Africa,” “digital divide and WIL in Africa,” and “public-private partnerships in WIL Africa.” In addition to truncation symbols, Boolean operators such as AND and OR were used to capture all relevant literature. The search was further refined to include qualitative and quantitative studies to comprehensively outline the topic.

Study Selection and Evaluation

An initial search yielded 151 articles from the database search. After removing duplicates, 91 articles remained. After the screening of the titles and the abstracts and the application of the inclusion and exclusion criteria, 61 remained for full-text review. The final synthesis included 21 articles as these addressed the research questions more directly. Forty articles were eliminated based on the full text review. The studies were assessed for clarity of research objectives appropriateness of research design, methods of data collection and analysis, and relevance to the African context. Figure 1 which follows, illustrates the PRISMA model adopted in this review.

FIGURE 1: Identification, screening, eligibility, and inclusion phases for the reviewed studies.



Data Extraction and Synthesis

Data extraction for the chosen studies was completed on a standardized form, including information on authorship, year of publication, research title, objectives of the research, methodology adopted, findings presented, and conclusions reached. Data extraction, quality assessment, and analysis in SLR were carried out by two researchers. The first researcher carried out the initial screening of studies based on inclusion/exclusion criteria. The researcher was responsible for extracting relevant data from selected studies and assessing the quality of studies using predefined criteria. Also, the researcher was responsible for conducting preliminary data synthesis and analysis.

The second researcher independently reviewed the selected studies to validate data extraction. The researcher also performed cross-checks on quality assessments to ensure consistency and identifying discrepancies and discussed them with the first researcher. The researcher also assisted in the final synthesis and interpretation of findings.

Recognizing the potential for bias and the need for consistency, a structured, standardized approach was adopted to ensure accuracy and reliability throughout the review. To maintain a consistent approach to data collection, a standardized extraction form was developed containing the following fields:

1. Study identification: author(s), year, title, and publication source.
2. Study design and methodology: details of the research design, sample size, data collection methods, and analysis techniques.
3. Key findings and themes: major insights on leveraging quality standards for enhanced work-integrated learning, with particular emphasis on any themes arising from an African context.
4. Quality assessment: assessment criteria using established protocols, such as PRISMA or Kitchenham and Charters (2007), to gauge the methodological rigor of each study.
5. Limitations and contributions: comments about the limitations, potential biases, and unique contribution of each study to the research topic.

Quality assessment of each study was made for ensuring reliability and validity of findings by basing on the clarity of research questions, appropriateness of methodology, rigor of data analysis, and relevance to the research questions. Studies that reached a predefined quality threshold were included in the final synthesis. Thematic synthesis was used, identifying key themes and patterns from the literature reviewed. Data analysis focused on leveraging quality standards for enhanced WIL outcomes in Africa in the 21st Century. Finally, a comparison and contrast of the findings was made to achieve a comprehensive overview of the topic. The findings of the systematic literature review are summarized narratively, along with tables and figures, where applicable. The discussion interprets these findings from the point of view of the already existing knowledge by highlighting what was contributed to the field, the gaps in the research, and any kind of recommendations for further studies.

RESULTS AND DISCUSSION

The findings from the literature review identify important themes on how quality standards play an important role in enhancing the outcomes of WIL, more so within African settings. The results point to the challenges and opportunities to improving WIL programs so that they meet the demands of the workforce in the 21st century.

Variances in Quality Standards Across Work Integrated Learning Programs

The findings indicate inconsistency in the quality of various WIL programs across Africa. Many of the studies suggested that while some universities and industries have framed formalized WIL mechanisms, others depend on ad hoc arrangements characterized by huge variations in quality (Campbell & Pretti, 2023; Rowe & Winchester-Seeto, 2021; Ruskin & Bilous, 2022). This often results in disparate learning experiences among the students where some will receive well-organized and supervised work placements and others receive less support from industry partners.

In countries like South Africa, where guidelines for WIL have been developed at a national level, the situation has somewhat improved (Zegwaard & Pretti, 2023). The general absence of policy frameworks in most other African countries constrains systematic quality assurance approaches for these programs (WACE, 2024). The inconsistency means that WIL programs cannot reliably achieve consistency in the development of graduate skills and competencies valued most by employers, particularly in fields such as technology and finance, where standards are paramount (Jackson, 2015; WACE, 2024).

Quality delivery of any WIL program can be achieved by structuring the WIL components of the learning program in relation to the learning objectives, learning activities and assessments, and the coordination and monitoring of the student's learning processes and progress (Du Plessis, 2015; Schneider & Preckel, 2017).

Quality Standards Influence the Outcomes of Work-Integrated Learning for Students

Previous research suggests that, for quality delivery of WIL, there should be a WIL curriculum, that is, WIL should be designed as a separate module (Du Plessis, 2015). In doing so, students and facilitators will be provided with direction and understanding of each learning unit. WIL curriculum should focus on transferring knowledge and understanding of the practical application of learning units (Du Plessis, 2015). Thus, disciplinary knowledge should be aligned with professional practice in the market. The modules for WIL should train students on how to carry out sound research to tackle unfamiliar concrete or abstract problems.

Challenges and Barriers Experienced in Implementing Quality Standards

Based on the literature reviewed, three main themes related to challenges experienced in Africa in implementing quality standards for WIL programs were identified. These themes include digital divide and access to WIL, and challenges from industry partnerships.

Industry partnership challenges

The success of WIL is largely dependent upon industry partners who provide students with real work experiences (Zegwaard & Pretti, 2023). The literature identifies that a limited number of industries, especially in rural and under-resourced communities, are able or willing to provide meaningful WIL experiences for students (Rowe et al., 2022). This challenge is heightened in African countries where the economy is still developing and industry involvement in education remains low.

Most studies identified the mismatch between the skills required by industries and the knowledge provided by academic institutions (Ruskin & Bilous, 2020). This often results in a gap in industry investments in WIL programs, as industries might be reluctant to invest in these initiatives due to students not having acquired the appropriate skills (Jackson, 2015). The same urban-based industries

are normally swamped by requests for placements, with limited opportunities being made available for rural-based students (Rowe & Winchester-Seeto, 2021). However, the review has also yielded best practices wherein tight cooperation among academic institutions, government, and industries have been established. In this regard, one cited public-private partnership in South Africa developed national frameworks that encourage industries to engage in the WIL programs to ensure that more students benefit from such programs (Winchester-Seeto & Rowe, 2023).

The digital divide and access to work-integrated learning

The literature identifies that the digital divide grossly influences access to, and the quality of, WIL programs across Africa. In fact, a lack of digital infrastructure in most of these rural areas prevents students from accessing virtual or remote WIL opportunities that are increasingly relevant in the 21st century digital economy (C. Adams & Jones, 2022). It limits not only the students who can participate in WIL programs, but it also has been limiting industries that can provide placements, as many of these now require students to have basic digital literacy and competencies.

More developed regions also started to implement digital tools to enhance the WIL experience of their programs through online platforms that link students with mentors or industry professionals, for instance, virtual internships, that are more common in urban centers (Du Plessis & Majola, 2020). However, without major investments in digital infrastructure, the students coming from rural and underdeveloped regions will keep falling behind, promoting larger gaps in employability outcomes.

Challenges from industry partnership

Industry partnerships are a core determinant of WIL, as they provide students with opportunities to gain practical work experience. Indeed, the literature has identified several industries, especially in rural and underserved areas, that are either unwilling or unable to provide meaningful WIL placements (Winchester-Seeto & Rowe, 2023). This situation is worse in most African countries, where economies are less developed and industry engagement in educational matters is minimal or lacking (Sachs et al., 2019).

Many studies pointed to the mismatch between the required industrial skills and the knowledge imparted by the institutes (Rowe & Zegwaard, 2017). This gap creates situations where industry is reluctant to invest in WIL programs since the students would not meet the required expectations. In addition, urban-based industries are under heavy pressure with regard to taking up more and more placements, further leading to reduced opportunities for students in rural-based universities (Schneider & Preckel, 2017).

Conversely, the review also highlighted best practice where academia-government-industry partnerships have been formed (Ruskin & Bilous, 2022). For instance, public-private partnership initiatives in South Africa have led to the formulation of national frameworks to incentivize industries to participate in WIL programs so that more students benefit from these experiences (Smith et al., 2022).

BEST PRACTICE FOR WORK INTEGRATED LEARNING QUALITY ASSURANCE

Effective quality assurance in WIL is exemplified by how governments, businesses, and academic institutions collaborate in developing sustainable and inclusive WIL frameworks. Public-private partnerships are among the effective strategies adopted so far in the scaling-up of WIL initiatives (Ruskin & Bilous, 2020). For instance, WIL is treated as an integral feature of higher education in South Africa, where the Department of Higher Education and Training has integrated a National Skills Development Strategy into its framework (Council on Higher Education, 2019). This approach

has driven corporate involvement with WIL programs and the creation of national quality assurance requirements.

Despite the challenges, the literature highlights that there are a number of emerging best practices that offer potential solutions for enhancing WIL outcomes across Africa. One example is how governments, businesses, and academic institutions collaborate in developing sustainable and inclusive WIL frameworks. Public-private partnerships have proven to be effective strategies for scaling-up of WIL initiatives (Smith et al., 2022).

Another strategy has involved the development of formalized quality-assurance frameworks which stipulate the design, implementation, and evaluation standards of WIL programs (Cooper et al., 2010). This ensures that the standards and expectations for students and industry partners are aligned. Additionally, embedding indigenous knowledge and local contexts within WIL programs could further strengthen their relevance and impact (Van der Merwe, 2021). For example, WIL programs which are integrated into industry sectors at the local level, such as agriculture or small-scale manufacturing, can equip students with employable skills immediately upon completion while also contributing to the economic development of their communities (Rowe & Zegwaard, 2017).

Another best practice involves leveraging technology to improve access to WIL opportunities (Brewer et al., 2020). In cases where digital infrastructure permits, universities are turning to online platforms to facilitate WIL placements (Ruskin & Bilous, 2020). These offer students remote working experiences and connect them with industry professionals outside of their geographical location (Zegwaard & Rowe, 2019). These platforms also provide assessment tools that allow for more consistent and transparent student performance evaluations, addressing a key gap in many current programs in WIL.

RECOMMENDATIONS FOR IMPROVING WORK-INTEGRATED LEARNING OUTCOMES

Improving WIL outcomes in Africa requires a multi-faceted approach that draws on quality standards, industry partnerships, and digital infrastructure. Based on the findings presented from the systematic literature review, the following recommendations are proposed:

Establish Fully Developed National Frameworks for Quality Assurance in Work-Integrated Learning

National frameworks need to be developed through collaborations between governments and institutions to define industry partnerships, the nature of placements, and assessment practices (Campbell & Pretti, 2023). Industries should be encouraged to be actively involved in ensuring that academic curricula align with market needs (Carpendale & Mitchell, 2023). This will ensure that WIL programs always address labor market needs and offer high-quality learning experiences for students (J. D. Adams et al., 2019). Furthermore, standard means of assessing student performance and the overall quality of WIL programs should be established along with continuous monitoring mechanisms to evaluate the WIL outcomes (C. Adams & Jones, 2022).

Improve Partnerships Between Industry and Academics

In the design and delivery of WIL programs, universities should actively consult with relevant industries to ensure that learners acquire the skills that are required in emerging labor markets (Ferns & Arsenault, 2023). The system should also consider incentives for industries to offer WIL placement opportunities, particularly in the rural areas, and to participate in curriculum development.

Curriculum development at academic institutions should involve industry partners to ensure that students acquire relevant and in-demand skills (Smith et al., 2022). Additionally, governments and universities can offer tax incentives, grants, or recognition programs to industries that consistently provide high-value WIL placements, especially in rural or underserved areas. Long-term agreements with industry partners can help to secure a stream of WIL opportunities for guaranteed sustainable and mutually beneficial collaborations (Rowe & Winchester-Seeto, 2021).

Invest in Digital Infrastructure for Virtual Work-Integrated Learning Opportunities

It is incumbent upon governments and institutions to invest in digital infrastructure to bridge the digital divide between rural and under-resourced areas and give students from those places access to virtual WIL opportunities (Smith et al., 2022). This will not only increase WIL participation rates but also prepare students for life in the digital economy. To address this digital divide challenge, governments, universities, and private stakeholders must invest in the necessary digital infrastructure to support online WIL programs (Dean et al., 2023). Governments should prioritize expanding access to broadband internet in underserved communities to make online WIL opportunities accessible to students from rural backgrounds. Universities can then create online platforms allowing for virtual internships, remote mentorship, and online project collaborations with industry partners (Jackson, 2015). These platforms will also provide resources for assessment and feedback to help maintain the quality of online WIL. Academic institutions should make sure that digital literacy is at the heart of their WIL programs so that students can meet the demands of the modern workforce (Schneider & Preckel, 2017).

Tailor Work-Integrated Learning Programs That can be Adapted to Suit Local Industries and Contexts

WIL programs must be designed with careful consideration to ensure that students from a rural or disadvantaged settings have access to quality placement opportunities (Ajjawi et al., 2022). This tailoring is important to meet the needs of the local industry and communities and address the gaps to achieving sustainable development (Smith et al., 2022). The WIL curricula should be linked to the local industries of agriculture, small-scale manufacturing, and entrepreneurship to ensure that students gain appropriate employment opportunities within their economic environment (Ajjawi et al., 2022). Integrating local and indigenous knowledge systems into WIL programs can further enhance the relevance and applicability of training, especially in rural settings dominated by traditional industries (Brewer et al., 2020). Students should be encouraged to work on community projects that seek to resolve some of the local challenges while fostering social responsibility and contributing to local economic development (Zegwaard & Pretti, 2023). By intentionally designing WIL to cater to local contexts, higher education institutions can better assure graduate employability and contribute to sustainable regional development (Cooper et al., 2010).

Embed Diversity and Inclusion in Work-Integrated Learning to Ensure Inclusive Access

African Higher education institutions must ensure that every student benefits in WIL programs by providing them with scholarships and financial aid (Smith et al., 2022). The governments and universities should support students from low-income families through providing financial aid to access WIL without financial barriers (Campbell & Pretti, 2023). Promoting gender equity in WIL is also important (Ruskin & Bilous, 2022). Targeted initiatives should be implemented to increase the participation of women and underrepresented groups WIL programs, especially in fields traditionally dominated by men, such as engineering and technology (Brewer et al., 2020). Furthermore, institutions should design outreach programs specifically targeting students in rural and underserved areas,

ensuring that they have access to career counseling, WIL opportunities, and mentorship. This inclusiveness will ensure that WIL programs close the skills and employment gap in Africa by guaranteeing equal opportunities for all (Fleming & Haigh, 2017a).

Increase Government and Policy Support for Work-Integrated Learning

Governments should put in place policies that make WIL part of the higher education curricula and its implementation (Jackson, 2015). Funds should be allocated to the universities to establish WIL offices, train faculties, and support industry partnerships (Zegwaard & Pretti, 2023). Governments can facilitate the necessary partnerships between public educational institutions and private industries to enhance collaboration and ensure that WIL programs meet the needs of both sectors (Smith et al., 2022). Government support is vital for creating the infrastructure and resources required to scale up WIL programs sustainably across African countries (Ferns et al., 2014).

LIMITATIONS OF THE STUDY

The study employed an SLR approach, ensuring a rigorous and systematic review of the literature. However, several limitations should be acknowledged. First, focused literature on WIL issues within the African context is scant therefore this may limit the generalizability of the findings. This also highlights the need for more context-specific research in the future. Another limitation is that the review, by design, relied on published, peer-reviewed studies and, as a result, potentially excluded valuable insights from grey literature or unpublished studies. Also, only English language publications were included in this review, thus excluding potentially relevant studies published in other languages.

CONCLUSION

WIL has the potential to narrow the gap between higher education and employability in Africa, especially in a context marked by high levels of unemployment and rapidly changing labor market demands. However, the reality is that WIL programs on the African continent face challenges such as inconsistent quality standards, limited industry engagement, and unequal opportunities, particularly in rural areas with inadequate access to modern technologies. This article identifies key strategies for enhancing WIL, namely, leveraging quality standards to improve WIL outcomes, robust national quality assurance frameworks, strengthened industry-academic partnerships, and investment in digital infrastructure. To fully realize the potential of WIL in Africa as well as ensure equity and quality in WIL experiences, a collaborative approach involving governments, educational institutions, industries, and technology providers is essential. Moreover, there is a pressing need to create opportunities for equal access to WIL, especially in underrepresented regions, and to adapt programs to meet the needs of local industries.

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About the Journal

The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues related to Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE).

In this Journal, WIL is defined as:

An educational approach involving three parties – the student, educational institution, and an external stakeholder – consisting of authentic work-focused experiences as an intentional component of the curriculum. Students learn through active engagement in purposeful work tasks, which enable the integration of theory with meaningful practice that is relevant to the students' discipline of study and/or professional development (Zegwaard et al., 2023, p. 38).*

Examples of practice include off-campus workplace immersion activities such as work placements, internships, practicum, service learning, and cooperative education (co-op), and on-campus activities such as work-related projects/competitions, entrepreneurship, student-led enterprise, student consultancies, etc. WIL is related to, and overlaps with, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal's aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, WIL practitioners, curricular designers, and researchers. The Journal encourages quality research and explorative critical discussion that leads to the advancement of quality practices, development of further understanding of WIL, and promote further research.

The Journal is financially supported by the Work-Integrated Learning New Zealand (WILNZ; www.wilnz.nz), WACE (www.waceinc.org), WIL Australia (www.acen.edu.au), and the University of Waikato (www.waikato.ac.nz).

Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL are primarily in two forms: 1) *research publications* describing research into aspects of WIL and, 2) *topical discussion* articles that review relevant literature and provide critical explorative discussion around a topical issue. The journal will, on occasions, consider good practice submissions.

Research publications should contain; an introduction that describes relevant literature and sets the context of the inquiry. A detailed description and justification for the methodology employed. A description of the research findings - tabulated as appropriate, a discussion of the importance of the findings including their significance to current established literature, implications for practitioners and researchers, whilst remaining mindful of the limitations of the data, and a conclusion including recommendations.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical and scholarly discussion on the importance of the issues, critical insights into how to advance the issue further, and implications for other researchers and practitioners.

Good practice and program description papers. On occasions, IJWIL seeks manuscripts describing an example of good practice, however, only if it presents a particularly unique or innovative practice or it was situated in an unusual context. There must be a clear contribution of new knowledge to the established literature. Manuscripts describing what is essentially 'typical', 'common' or 'known' practices will be encouraged to rewrite the focus of the manuscript to a significant educational issue or will be encouraged to publish their work via another avenue that seeks such content.

By negotiation with the Editor-in-Chief, the Journal also accepts a small number of *Book Reviews* of relevant and recently published books.

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