Integrating Entrepreneurship and Work-Integrated Learning to Enhance Graduate Employability in South Africa: The I-EWIL Framework

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ABSTRACT

South African higher education institutions are expected to prepare graduates for a labour market characterised by persistent unemployment, skills mismatches, technological change and increasingly fluid career pathways. Work-Integrated Learning (WIL) provides an established mechanism for connecting academic learning with workplace practice, yet its employability orientation may not fully address the entrepreneurial capabilities required for graduates to create and respond to opportunities. This conceptual article examines how entrepreneurship education and WIL can be intentionally integrated to strengthen graduate employability. Drawing on Experiential Learning Theory and entrepreneurial learning literature, the article undertakes a structured literature review and thematic synthesis of scholarship on WIL, entrepreneurship education, entrepreneurial competencies and graduate employability. Three interrelated themes underpin the proposed Integrated Entrepreneurial WIL (I-EWIL) Framework: authentic workplace learning, entrepreneurial competency development and experiential reflection. These are connected through a cyclical I-EWIL Integration Process comprising Observe, Identify, Reflect, Create, Test and Apply, and Learn and Adapt. The framework further incorporates continuous mentoring, coaching, industry feedback, peer learning and networking, together with institutional and ecosystem enablers. The conceptual contribution lies in repositioning entrepreneurship as a graduate capability that can operate across formal employment, intrapreneurship and entrepreneurship, rather than treating entrepreneurship as an alternative to employment. The article proposes that I-EWIL provides a theoretically grounded basis for future empirical research into how workplace learning can develop entrepreneurial capability and, in turn, support more adaptable and sustainable graduate career pathways in South Africa.

Keywords: WIL, Entrepreneurial WIL, graduate employability, entrepreneurship education, entrepreneurial competencies, experiential learning, South Africa

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1. INTRODUCTION

Work-Integrated Learning (WIL) is widely recognised as an educational approach that connects academic learning with practical workplace experience. By creating opportunities for students to apply disciplinary knowledge in authentic settings, WIL can strengthen professional competence, career development and graduate employability (Jackson 2015; Jackson and Collings 2018; Kiruthika et al. 2024). Its importance is particularly evident within Universities of Technology (UoTs) and professionally oriented qualifications, where workplace exposure is intended to form a meaningful part of the learning experience.

However, the employability challenge facing graduates has become more complex than the transition from higher education into a first job. Labour markets are characterised by technological change, changing organisational structures, uncertainty and competition for entry-level positions (Jackson and Collings 2018; Mageza-Mokhethi and Adekanmbi 2024). Graduates are therefore expected to demonstrate not only disciplinary knowledge and technical competence, but also adaptability, problem-solving, initiative, resilience and the ability to identify and respond to opportunities (Jackson and Collings 2018; Mageza-Mokhethi and Adekanmbi 2024). This raises a question for WIL: whether workplace exposure should remain primarily a mechanism for work readiness, or whether it should also deliberately develop capabilities that enable graduates to create and respond to opportunities.

Entrepreneurship education provides one possible response. Contemporary entrepreneurship scholarship increasingly treats entrepreneurship as a set of capabilities associated with opportunity recognition, innovation, experimentation, problem-solving and value creation rather than solely as the establishment of a new business (Eisenstein and Raz, 2021; Pretti et al. 2020). Importantly, these capabilities are relevant within organisations as well as in new ventures. Experiential entrepreneurship pedagogy has been associated with entrepreneurial competencies and employment-related outcomes, including intrapreneurial and entrepreneurial activity (Kozlinska et al. 2023).

The convergence of these two educational fields has produced Entrepreneurial Work-Integrated Learning (E-WIL). Eisenstein and Raz (2021) describe E-WIL as the intersection between WIL pedagogy and entrepreneurship education, in which WIL is used to deliver entrepreneurial learning outcomes. Related work on experiential entrepreneurship WIL demonstrates how authentic workplace and professional-community experiences can develop entrepreneurial mindsets and graduate agency in uncertain labour markets (de Villiers Scheepers et al. 2018). Supervised entrepreneurial WIL further highlights the role of structured internships, reflection and supervision in learning through entrepreneurship (Eisenstein et al. 2021).

The South African context gives this integration particular significance. In the second quarter of 2026, the official unemployment rate for people aged 15–34 was 47.4%, while graduate unemployment stood at 12.4% (Statistics South Africa 2026). At the same time, South African research continues to identify the need for stronger links between entrepreneurship education, experiential learning, institutional support and employability (Botha and Teles Amaral 2025; Liebenberg et al. 2026; Shange et al. 2026). These conditions suggest that preparing graduates only to compete for existing jobs may be insufficient; higher education also needs to develop graduates who can contribute to innovation, identify opportunities and create value within different forms of work.

This article therefore examines E-WIL as a mechanism for strengthening graduate employability and proposes the Integrated Entrepreneurial WIL (I-EWIL) Framework. The central argument is not that entrepreneurship should replace employment preparation. Rather, entrepreneurial capability should be treated as a transferable graduate attribute that

complements professional competence and enables graduates to navigate employment, intrapreneurship and entrepreneurship. The article contributes a conceptual integration of these elements and specifies a cyclical learning process through which workplace experience may be transformed into entrepreneurial capability and career adaptability.

2. LITERATURE REVIEW

2.1 WIL AND GRADUATE EMPLOYABILITY

WIL is an umbrella term covering educational approaches that intentionally integrate theory and practice within a curriculum (Eriksson and Hattinger 2015). It can include workplace-based placements, cooperative education, practicums, simulations and industry-based projects. A defining feature is the purposeful relationship between academic learning and workplace experience, supported by collaboration among the student, higher education institution and host organisation (Jacobs and Teise 2014; Eisenstein and Raz, 2021).

The employability value of WIL is well established. WIL can support the development of professional skills, confidence, career awareness and workplace competence, while providing students with opportunities to apply knowledge in contexts that resemble or constitute professional practice (Jackson 2015; Sattler 2011; Sattler and Peters 2013; Wilton 2012). Graduate follow-up evidence has also linked WIL participation with stronger perceptions of qualification–employment alignment and career preparedness (Peters et al. 2014; Wilton 2012). From an employer perspective, WIL can contribute to talent pipelines by allowing organisations to engage with emerging graduates before completion of their studies (Drewery et al. 2020).

The effectiveness of WIL, however, depends on how deliberately the experience is designed. Meaningful learning requires defined learning outcomes, appropriate supervision, authentic engagement and opportunities for reflection; placement alone does not guarantee learning or employability development (Winberg et al. 2011; Jackson 2015). This distinction is important for the present argument. If WIL is designed mainly around exposure to routine workplace tasks, it may reproduce existing occupational expectations without sufficiently developing students' agency to identify problems, challenge existing practices or create value.

The implication is not that traditional WIL is inadequate. Rather, changing labour-market conditions create a rationale for extending its purpose. WIL can remain a mechanism for developing professional competence while also becoming a context in which students learn to recognise opportunities, experiment with solutions, work with uncertainty and reflect on the value they can create.

2.2 WIL AND THE SOUTH AFRICAN HIGHER EDUCATION CONTEXT

Within South Africa, WIL is particularly important because of the strong applied orientation of Universities of Technology and the continuing need to improve the alignment between higher education and labour-market requirements. WIL provides a structured opportunity for students to connect academic learning with workplace practice and for institutions and employers to engage around graduate capability (Winberg et al. 2011; Jackson 2015). Recent evidence from a South African University of Technology confirms the continuing role of WIL as a skills-acquisition mechanism, while also highlighting the importance of the quality and organisation of the learning experience (Magagula et al. 2026).

The broader labour-market context reinforces this need. South Africa faces persistent unemployment alongside skills shortages and changing employer expectations. Recent research on employability in the 4IR context highlights the interaction between abilities, self-efficacy and WIL effectiveness, suggesting that employability cannot be reduced to technical skills alone (Mageza-Mokhethi and Adekanmbi 2024). Similarly, research on entrepreneurial mindsets in South African higher education argues for institutional support and educational approaches that encourage graduates to consider innovation and opportunity creation alongside conventional employment (Ibrahim and Adeniyi, 2024).

These developments point towards a more expansive understanding of WIL. The question is no longer simply whether students receive workplace exposure, but what students are enabled to learn from that exposure and how those learning experiences contribute to their future career agency.

2.3 ENTREPRENEURSHIP EDUCATION AND GRADUATE EMPLOYABILITY

Entrepreneurship education has traditionally been associated with business start-up and self-employment. Increasingly, however, entrepreneurship is conceptualised as a set of transferable competencies that include opportunity recognition, creativity, innovation, problem-solving, adaptability, resilience and value creation (Eisenstein and Raz, 2021; Pretti et al. 2020). These capabilities can be relevant to individuals who establish businesses as well as to employees who identify opportunities and innovate within established organisations.

Experiential approaches are particularly relevant because entrepreneurial capability develops through doing, testing, reflecting and adapting rather than through knowledge acquisition alone. Kozlinska et al. (2023), for example, found that experiential entrepreneurship pedagogy was associated with the development of entrepreneurial competencies and examined how these competencies related to graduate employment status. In the South African context, Botha and Teles Amaral (2025) similarly identify work placements and other experiential approaches as important considerations for entrepreneurial education.

Entrepreneurship education should therefore not be framed as a choice between becoming an entrepreneur and obtaining employment. Entrepreneurial competencies can strengthen employability by enabling graduates to respond proactively to workplace challenges, recognise opportunities and contribute to organisational value creation. This broader interpretation is central to the I-EWIL Framework.

2.4 ENTREPRENEURIAL WIL

E-WIL provides an important bridge between entrepreneurship education and WIL. Eisenstein and Raz (2021) position E-WIL as the application of WIL pedagogy to entrepreneurship learning, while Eisenstein et al. (2021) demonstrate how supervised entrepreneurial WIL can combine internships, experiential activities and structured reflection. De Villiers Scheepers et al. (2018) similarly propose an experiential entrepreneurship WIL model in which authentic professional experiences support entrepreneurial mindset development and graduate agency.

This literature establishes that WIL can be used to develop entrepreneurial learning. It also identifies several design requirements, including authentic experience, supervision, reflection, professional engagement and opportunities for students to act on real problems. The present article builds on this literature but seeks to make the integration more explicit by specifying the relationships between workplace experience, entrepreneurial competencies, reflection and employability outcomes.

The proposed contribution is therefore not to claim that E-WIL is an entirely new educational phenomenon. Rather, it is to consolidate existing insights into a South African conceptual framework that explains how entrepreneurial learning can be deliberately embedded throughout the WIL experience and connected to multiple graduate career pathways.

Table 1 illustrates the distinctions between traditional WIL, Entrepreneurial WIL and the proposed I-EWIL Framework.

TABLE 1: COMPARISON OF TRADITIONAL WIL, ENTREPRENEURIAL WIL AND THE PROPOSED I-EWIL FRAMEWORK

Dimension	Traditional WIL	Entrepreneurial WIL (E-WIL)	Proposed I-EWIL
Primary focus	Workplace competence and work readiness (Kolb, 1984; Pretti et al., 2020).	Entrepreneurial learning through workplace experience (Eisenstein et al., 2021; Botha & Teles Amaral, 2025).	Integrating workplace learning, psychological resources and entrepreneurial competencies.
Learning process	Applying academic knowledge in authentic work settings.	Developing entrepreneurial capabilities through practical experience and reflection.	Connecting workplace experience, reflection and opportunity recognition with entrepreneurial competency development.
Psychological resources	May develop through workplace experience but are not necessarily explicitly modelled.	May be addressed, depending on programme design.	Explicitly considers self-efficacy and resilience as potential influences on learning and action.
Intended outcomes	Professional competence and employability.	Entrepreneurial capabilities and potential venture creation.	Employability, intrapreneurship and venture creation through an integrated developmental pathway.

I-EWIL also differs from simply adding an entrepreneurship module to a WIL programme. It locates entrepreneurial learning within the workplace experience itself: students learn from the workplace, about the workplace and, where appropriate, through supervised attempts to improve a process or create value. The approach builds on existing E-WIL scholarship rather than claiming that these practices are absent from earlier models (Eisenstein et al. 2021; Botha and Teles Amaral 2025).

2.5 RESEARCH GAP

Three interrelated gaps emerge from the literature. First, WIL and entrepreneurship education have frequently been discussed as complementary but distinct educational domains. WIL literature tends to emphasise workplace competence and the transition into employment, while entrepreneurship education often emphasises entrepreneurial intention, venture creation and entrepreneurial competencies. Entrepreneurial Work-Integrated Learning (E-WIL) provides an important bridge between these fields.

Second, literature provides scope for a more integrated conceptualisation of how entrepreneurial learning can be embedded throughout the WIL cycle rather than introduced as a separate educational activity. Exposure to an organisational problem during a workplace placement does not necessarily result in opportunity recognition, experimentation, reflection or value creation. These processes require intentional educational design, structured reflection, appropriate feedback and opportunities to apply learning in authentic contexts. A conceptual framework that connects these processes may help explain how workplace experiences can be translated into entrepreneurial competencies.

Third, the South African context highlights the importance of considering the institutional and ecosystem conditions that support the relationship between WIL, entrepreneurship education and graduate development. Relevant South

African scholarship identifies the importance of integrating employability, entrepreneurship, experiential learning, mentorship, university–industry collaboration and institutional support (Botha and Teles Amaral 2025; Liebenberg et al. 2026; Shange et al. 2026). These dimensions suggest the need for a contextually relevant framework that considers not only students' learning experiences but also the educational and institutional conditions that enable entrepreneurial development.

In response to these gaps, the proposed Integrated Entrepreneurial Work-Integrated Learning (I-EWIL) framework seeks to make the relationships between authentic workplace learning, psychological resources, entrepreneurial competency development and graduate employability more explicit within a unified conceptual structure. Its proposed contribution is to connect the learning processes embedded in WIL with psychological resources, particularly self-efficacy and resilience, that may influence how students respond to workplace challenges and translate experience into action. The framework also positions entrepreneurial competencies as potentially relevant to multiple graduate pathways, including employment, innovation within existing organisations and new venture creation.

The originality of I-EWIL therefore lies in its proposed integration of these dimensions into a single developmental framework, rather than in introducing WIL, entrepreneurship education or experiential learning as new concepts. Its specific contribution is to articulate a cyclical pathway through which authentic workplace experiences may be translated into entrepreneurial learning and capabilities, while identifying psychological resources and institutional support as relevant conditions and linking capability development to multiple graduate career pathways. This contribution is conceptual and requires empirical investigation.

3. PURPOSE AND OBJECTIVES OF THE ARTICLE

The purpose of this article is to develop a theoretically sound conceptual framework explaining how entrepreneurial learning can be intentionally integrated into WIL to strengthen graduate employability in South Africa.

The article seeks to:

- critically synthesise literature on WIL, entrepreneurship education, entrepreneurial learning and graduate employability;
- identify the conceptual relationships that underpin Entrepreneurial WIL;
- develop a cyclical process through which authentic workplace experiences can be converted into entrepreneurial learning and capability; and
- propose the I-EWIL Framework as a basis for future empirical investigation across South African higher education contexts.

4. RESEARCH STRATEGY

This article adopted a conceptual research design informed by a structured literature review and thematic synthesis to develop an Integrated Entrepreneurial Work-Integrated Learning (I-EWIL) framework. The purpose of the review was to identify, examine and synthesise relevant theoretical perspectives and scholarly evidence concerning work-integrated learning (WIL), graduate employability, entrepreneurship education, entrepreneurial learning, experiential learning and entrepreneurial competencies.

The literature search strategy used five academic databases and search platforms: Scopus, Web of Science, ERIC, EBSCOhost and Google Scholar. These platforms were selected for their coverage of multidisciplinary research, education, management, entrepreneurship and higher education scholarship. The search focused on publications from 2015 to 2026, while earlier foundational publications were retained where necessary to establish the theoretical basis of the framework, particularly Kolb's (1984) Experiential Learning Theory.

Search terms were developed around the central concepts informing the study and combined using Boolean operators. These included “work-integrated learning”, “work-based learning”, “experiential learning”, “entrepreneurship education”, “entrepreneurial learning”, “entrepreneurial competencies”, “graduate employability”, “employability skills”, “self-efficacy”, “resilience”, “opportunity recognition” and “innovation”. Search strings were adapted to the requirements of the individual platforms, combining related terms with AND and OR operators.

The review considered peer-reviewed journal articles, scholarly books and book chapters, conference proceedings, higher education reports and relevant policy documents. Sources were considered for inclusion when they made a substantive contribution to at least one of the article’s principal conceptual domains, provided relevant theoretical or empirical evidence, or informed the proposed relationships within the I-EWIL framework. Particular attention was given to literature connecting authentic workplace experiences, entrepreneurship education, experiential learning, entrepreneurial competency development and graduate employability. Foundational theoretical publications were retained where they provided an essential conceptual basis for the framework. Sources were excluded when they fell outside the article’s scope, addressed the focal concepts only incidentally, duplicated material already identified, or did not provide a sufficiently clear scholarly, theoretical or policy contribution.

The selection process involved assessing titles and abstracts, followed by closer examination of potentially relevant sources. Full-text material was considered where necessary to assess its relevance and conceptual contribution. The selected literature was then analysed thematically. Relevant concepts, theoretical propositions and reported findings were compared and synthesised into recurring themes, including authentic workplace learning, experiential learning and reflection, opportunity recognition, innovation, entrepreneurial competencies, adaptability, resilience and employability. These themes were examined in relation to one another to identify plausible conceptual connections and inform the structure and proposed relationships of the I-EWIL framework.

The review was undertaken to support conceptual synthesis rather than as a systematic review intended to produce a statistically exhaustive record count. The framework was developed through purposive selection and thematic comparison of sources meeting the stated relevance and contribution criteria. This approach limits claims about the completeness of the literature search and is consistent with the article’s conceptual purpose.

The resulting framework represents a theory-informed conceptual synthesis rather than an empirically validated model. Its proposed relationships are grounded in the literature informing the article and are intended to explain how entrepreneurial learning opportunities embedded in WIL may support the development of entrepreneurial competencies and graduate employability.

5. THEORETICAL FOUNDATIONS

5.1 EXPERIENTIAL LEARNING THEORY

Kolb's (1984) Experiential Learning Theory provides the principal learning-process foundation for I-EWIL. The theory conceptualises learning as a cyclical process involving concrete experience, reflective observation, abstract conceptualisation and active experimentation. WIL naturally provides concrete workplace experiences, but the educational value of those experiences depends on opportunities to reflect, conceptualise and act on learning.

The I-EWIL Integration Process extends this logic into a workplace-entrepreneurship context. Students are encouraged to observe the workplace, identify problems or opportunities, reflect on what they have observed, create possible responses, test and apply those responses, and learn and adapt from feedback. The process therefore translates experiential learning into an intentional entrepreneurial learning sequence.

5.2 ENTREPRENEURIAL LEARNING

Entrepreneurial learning provides the second theoretical foundation. Rather than treating entrepreneurship as a discrete occupational destination, entrepreneurial learning emphasises learning through experience, uncertainty, experimentation, opportunity recognition and interaction with real-world contexts. E-WIL research demonstrates the relevance of authentic workplace environments for this form of learning (de Villiers Scheepers et al. 2018; Eisenstein et al. 2021; Eisenstein and Raz, 2021).

Bringing experiential learning and entrepreneurial learning together provides the conceptual logic for I-EWIL: authentic workplace experience becomes the stimulus for observation and opportunity recognition; reflection supports meaning-making; experimentation allows students to test responses; and feedback enables adaptation. Entrepreneurial capability is thus developed through a process rather than presented as a set of abstract attributes.

6. THE INTEGRATED ENTREPRENEURIAL WIL (I-EWIL) FRAMEWORK

6.1 CONCEPTUAL CONTRIBUTION

The central conceptual contribution of I-EWIL is the intentional integration of three dimensions that are often addressed separately: authentic workplace learning, entrepreneurial competency development and experiential reflection. The framework proposes that these dimensions should operate as mutually reinforcing components rather than as independent activities.

First, authentic workplace learning provides the context in which students encounter real organisational practices, constraints, customers, technologies, problems and opportunities. Second, entrepreneurial competency development provides the capability to interpret those experiences through opportunity recognition, innovation, problem-solving, adaptability, resilience, self-efficacy, communication, collaboration and value creation. Third, experiential reflection allows students to make meaning from what they observe and to reconsider assumptions, actions and possible alternatives.

The novelty of the framework lies primarily in the proposed integration and sequence. It does not claim to invent WIL, entrepreneurial learning or experiential reflection. Instead, it specifies how these existing educational resources can be deliberately connected so that workplace experience is not only used to demonstrate existing knowledge but also to stimulate opportunity-oriented learning and action.

A further contribution is the treatment of entrepreneurship as a transferable graduate capability rather than an alternative to employment. The framework therefore recognises three interconnected career pathways: formal employment, intrapreneurship within existing organisations and entrepreneurship through new ventures or other forms of independent value creation. This positioning is consistent with evidence linking experiential entrepreneurship pedagogy and entrepreneurial competencies with different forms of graduate employment and entrepreneurial activity (Kozlinska et al. 2023).

6.2 I-EWIL Framework Components

The I-EWIL Framework consists of five interacting components: context and enablers; Traditional WIL experience; the I-EWIL Integration Process; entrepreneurial capabilities developed; and graduate outcomes and career pathways. Continuous support mechanisms operate across the framework

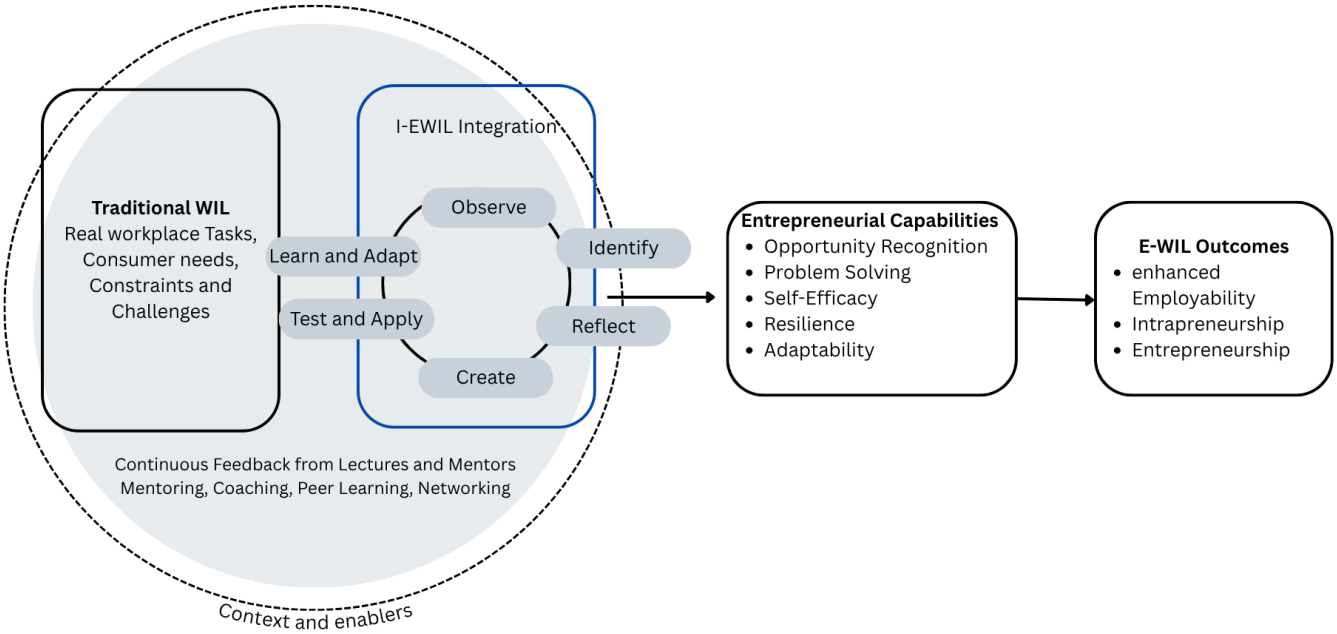

FIGURE 1. INTEGRATED ENTREPRENEURIAL WIL (I-EWIL) FRAMEWORK FOR ENHANCING GRADUATE EMPLOYABILITY IN SOUTH AFRICA.

6.2.1 Context and Enablers

I-EWIL operates within a broader higher education and labour-market environment shaped by graduate unemployment, skills shortages, technological change, artificial intelligence and changing employment patterns. The framework therefore cannot be implemented solely through student activity. Higher education institutions, industry partners, SETAs, government and entrepreneurial support structures have complementary responsibilities in creating the conditions for meaningful learning. Recent South African scholarship similarly emphasises institutional capacity, experiential learning, mentorship, university–industry collaboration and ecosystem support in strengthening employability and entrepreneurship (Liebenberg et al. 2026; Shange et al. 2026).

6.2.2 Traditional Workplace Learning

Authentic workplace learning is the entry point into the framework. Students engage with real or realistically simulated workplace situations in which they encounter tasks, organisational routines, customers, technologies, constraints and problems. The purpose is not simply exposure but active engagement with the workplace as a source of learning. Authenticity creates the conditions for students to recognise that workplace practices can be analysed, questioned and improved (de Villiers Scheepers et al. 2018; Eisenstein et al. 2021).

6.2.3 I-EWIL Integration Process

The I-EWIL Integration Process is cyclical and consists of six stages:

- **Observe:** Students deliberately attend to workplace practices, behaviours, processes, customer needs and organisational conditions.
- **Identify:** Students identify problems, unmet needs, inefficiencies, opportunities or areas where value could be created.
- **Reflect:** Students critically examine what they observed, question assumptions and connect workplace experience with academic and entrepreneurial knowledge.
- **Create:** Students generate possible responses, innovations, improvements, products, services or processes.
- **Test & Apply:** Students test or apply ideas in real or simulated contexts, subject to appropriate supervision, organisational constraints and ethical considerations.
- **Learn & Adapt:** Students use feedback, outcomes and reflection to refine their understanding and adapt their ideas or actions.

The process reflects Kolb's (1984) emphasis on experience, reflection, conceptualisation and experimentation, while adding an explicit opportunity-oriented dimension. It also aligns with experiential entrepreneurship research demonstrating the value of authentic experience, experimentation and reflection in developing entrepreneurial capabilities (de Villiers Scheepers et al. 2018; Eisenstein et al. 2021; Kozlinska et al. 2023).

6.2.4 Entrepreneurial Capabilities Developed

The framework proposes that repeated engagement with the integration process can support the development of entrepreneurial capabilities. These include opportunity recognition; problem-solving; creativity and innovation; adaptability and resilience; self-efficacy; leadership; communication and collaboration; and value creation. These capabilities complement disciplinary and professional competencies rather than replace them. The emphasis is on capability development through experience, reflection and action.

Self-efficacy is particularly relevant because students must develop confidence in their ability to interpret uncertain situations and act on possible solutions. Research on WIL and employability in the 4IR context highlights the relevance of self-efficacy alongside abilities and WIL effectiveness (Mageza-Mokhethi and Adekanmbi 2024). The framework consequently treats confidence and agency as part of the pathway between workplace experience and career action.

6.2.5 Continuous Support

Continuous support operates across all stages of I-EWIL. Mentoring, coaching, industry feedback, peer learning, networking and reflective support can help students interpret experiences and make informed decisions. Supervised entrepreneurial WIL research demonstrates the importance of structured support and reflection in enabling students to learn through workplace-based entrepreneurial experiences (Eisenstein et al. 2021). South African research similarly highlights mentorship and university–industry collaboration as important elements in strengthening entrepreneurship education and employability (Liebenberg et al. 2026).

6.2.6 Graduate Outcomes and Career Pathways

The proposed outcome of I-EWIL is not a single employment outcome. Instead, the framework anticipates strengthened work readiness and professional competence alongside career adaptability, entrepreneurial mindset, confidence and value-creation capability. These capabilities may be expressed through formal employment, intrapreneurship within existing organisations or entrepreneurship. This broader outcome orientation reflects the changing relationship between employment and entrepreneurship and avoids positioning self-employment as the only indicator of entrepreneurial learning.

The framework is deliberately cautious about causality. It proposes that I-EWIL may contribute to employability by strengthening the capabilities through which graduates navigate labour-market opportunities. Whether these capabilities translate into employment, entrepreneurial activity or improved career outcomes requires empirical testing.

6.2.7 Rationale for the Framework's Sequence

The five components were selected to represent the contextual, experiential, learning, developmental and outcome dimensions of entrepreneurial learning within WIL. Their sequence is a proposed developmental pathway rather than a deterministic chain. Context and enablers establish the conditions for meaningful learning; authentic WIL provides experiences and challenges to interpret; the six-stage integration process structures the movement from observation to action and adaptation; entrepreneurial capabilities represent potential developmental outcomes; and graduate outcomes and career pathways describe where those capabilities may subsequently be applied.

Authentic workplace exposure does not automatically produce opportunity recognition. Students may complete routine tasks without questioning existing practices or considering how value could be created. The Identify and Reflect stages therefore prompt students to examine what they have observed, consider stakeholder needs, connect experience with academic and entrepreneurial knowledge, and evaluate possible explanations before developing a response. Reflection is also required after testing: students compare intended and actual outcomes, consider feedback and adapt their approach. The cycle consequently includes reflection both before and after action rather than treating it as a single end-of-placement activity (Kolb 1984; Eisenstein et al. 2021).

Repeated engagement may provide opportunities to practise opportunity recognition, problem-solving and innovation. Self-efficacy may be supported when students experience progress, receive constructive feedback and develop confidence in taking appropriate action; resilience and adaptability may be exercised when initial responses do not work and students need to revise them. These capabilities are not guaranteed outcomes: their development depends on the quality of tasks, student participation, supervision, feedback and the wider organisational context. The

relationships are therefore framed as propositions for empirical investigation rather than established causal effects (Mageza-Mokhethi and Adekanmbi 2024; Pretti et al. 2020).

The components are also potentially reciprocal. Feedback from supervisors and workplace stakeholders can change how students interpret a problem, while learning outcomes may inform future placement design and institutional–industry collaboration. Continuous support therefore operates across the framework, not only at the beginning or end of the placement.

7. IMPLICATIONS AND RECOMMENDATIONS

7.1 HIGHER EDUCATION INSTITUTIONS

Higher education institutions should consider embedding entrepreneurial learning outcomes within WIL rather than treating entrepreneurship as a separate curricular or extracurricular activity. Learning outcomes and assessment strategies can include opportunity recognition, problem-solving, innovation, adaptability, resilience, self-efficacy and value creation alongside discipline-specific outcomes.

Academic staff should also work with industry partners to design placements and projects that expose students to authentic challenges rather than only routine observation. Structured reflection should be integrated before, during and after placement experiences so that students can move from observation to interpretation, action and adaptation. Such integration is consistent with emerging evidence supporting experiential and work-placement approaches in entrepreneurship education (Botha and Teles Amaral 2025).

7.2 INDUSTRY PARTNERS

Industry partners should be positioned as active co-creators of learning rather than simply providers of placement opportunities. Where appropriate, organisations can provide students with access to authentic problems, innovation activities, customer or operational challenges and opportunities to receive feedback from experienced practitioners. Mentoring and structured supervision can further strengthen the learning value of placements.

This does not require organisations to expose students to commercially sensitive information or to give students unrestricted authority. Rather, authentic learning can be carefully designed within appropriate organisational, ethical and supervisory boundaries.

7.3 PRACTICAL IMPLEMENTATION DURING A WIL PLACEMENT

I-EWIL can be embedded within an existing placement rather than requiring a separate entrepreneurship module. For example, a Marketing Management student may observe recurring delays in processing customer enquiries. The student identifies the problem, reflects on possible causes and stakeholder needs, discusses options with the supervisor, develops a feasible improvement (such as a tracking spreadsheet or revised procedure), and tests it where approval and workplace conditions permit. The student then reviews feedback and results, records what was learned and recommends refinements. The example illustrates the process; it is not evidence that I-EWIL has already been validated.

TABLE 2: PROPOSED IMPLEMENTATION OF THE I-EWIL FRAMEWORK DURING A WIL PLACEMENT

Stage / activity	Student responsibility	Institution / academic coordinator	Industry supervisor	Possible evidence
Prepare	Understand learning outcomes and placement boundaries.	Align placement outcomes with the curriculum; prepare student and supervisor.	Identify suitable tasks and explain workplace expectations.	Agreed learning plan.
Observe and identify	Observe a process and define a specific problem or opportunity.	Guide the student to connect observations with academic concepts.	Provide access to an appropriate task and contextual information.	Workplace opportunity analysis.
Reflect and create	Consider causes, stakeholders and possible responses; develop an idea.	Prompt critical reflection and ensure the proposal is appropriate to the programme.	Discuss feasibility, risks and operational constraints.	Reflective log and improvement proposal.
Test, receive feedback and adapt	Test or evaluate the idea where permitted; record outcomes and revisions.	Review evidence and provide academic feedback.	Approve any trial, give feedback and protect confidential information.	Supervisor feedback, evaluation or portfolio.
Review learning	Explain what was learned and how it could transfer to future work.	Assess learning against agreed criteria and capture feedback for future placements.	Comment on demonstrated capabilities and areas for development.	Student presentation or placement portfolio.

7.4 ASSESSMENT OF ENTREPRENEURIAL LEARNING

Assessment should focus on the quality of the student's learning process and evidence of capability development, not on whether every idea is commercially successful or becomes a new business. Assessment can be embedded in existing WIL requirements and use a small set of complementary evidence sources. Criteria may include the clarity of the problem or opportunity identified, the use of relevant knowledge, the quality and feasibility of the proposed response, engagement with feedback, reflection on outcomes and evidence of adaptation. Assessment should be proportionate to the placement and should protect commercially sensitive information.

Suitable evidence may include a reflective journal, workplace opportunity analysis, innovation or service-improvement proposal, supervisor evaluation, short student presentation or portfolio. A common rubric could assess opportunity identification, reasoning and application, experimentation or evaluation, reflection and adaptation, and professional conduct. These are suggested assessment options for future implementation, not a validated I-EWIL measurement instrument.

7.5 APPLICATION OF I-EWIL TO RETAILING AND MARKETING

Retailing and marketing provide practical settings for I-EWIL because students may encounter customer needs, service encounters, merchandising, sales processes, promotions, digital channels, inventory decisions, customer complaints and operational inefficiencies. These activities can provide authentic opportunities to observe practice, identify unmet needs, reflect on evidence and develop possible improvements.

For example, a retail student could analyse recurring complaints about a checkout process, propose a service improvement, seek store-management feedback and evaluate the potential customer and operational value. A marketing student could identify an underperforming digital campaign or an underserved customer segment, develop an alternative approach and propose how its value could be evaluated. Any implementation would remain subject to organisational approval, ethical requirements and access to appropriate data. These examples illustrate how I-EWIL can be adapted to retail and marketing placements without changing its underlying framework.

7.6 FUTURE RESEARCH

The I-EWIL Framework requires empirical validation. Future studies should examine whether participation in intentionally designed I-EWIL experiences is associated with changes in entrepreneurial competencies, self-efficacy, career adaptability and employability indicators. Quantitative studies could test the proposed conceptual relationships, while qualitative and mixed-method studies could explore how students experience the Observe–Identify–Reflect–Create–Test and Apply–Learn and Adapt process.

Longitudinal research would be particularly valuable. Graduate outcomes should be examined over time to determine whether entrepreneurial capabilities developed through WIL are subsequently applied in formal employment, intrapreneurship or entrepreneurship. Comparative studies across disciplines, institutions and industry sectors could also identify which contextual conditions strengthen or constrain implementation.

Future research should develop and evaluate reliable measures of I-EWIL participation and outcomes. Studies could examine whether the proposed stages can be assessed consistently across disciplines and whether the evidence sources suggested above capture meaningful changes in entrepreneurial capability without reducing entrepreneurship to business-plan production.

8. CONCLUSION

This article has argued that the changing nature of graduate work requires WIL to be considered not only as a mechanism for workplace readiness but also as a potential context for entrepreneurial capability development. The I-EWIL Framework responds to this challenge by intentionally connecting authentic workplace learning, entrepreneurial competency development and experiential reflection within a cyclical learning process.

The framework's principal contribution is integrative: it specifies a proposed sequence connecting workplace experience, opportunity-oriented reflection, experimentation and adaptation with entrepreneurial capabilities. It also considers how these capabilities may be relevant across employment, intrapreneurship and entrepreneurship. This is a proposed conceptual contribution rather than a claim that the framework or its effects have been empirically established.

For South African higher education, this conceptualisation is particularly relevant in a labour market characterised by high youth unemployment, graduate unemployment, skills mismatches and technological change. Nevertheless, the framework remains a conceptual proposition. Its relationships, implementation process and potential employability effects must be empirically tested before claims about effectiveness or causality can be made. The I-EWIL Framework therefore provides a research agenda as much as a pedagogical proposal: future studies can test whether intentionally designed entrepreneurial workplace learning produces measurable differences in graduate capability and career outcomes.

If validated, I-EWIL could provide higher education institutions and industry partners with a structured way to embed entrepreneurial learning in WIL so that students learn not only to participate in work, but also to recognise opportunities, create value and adapt to changing work contexts.

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