Collective_X

Unleashing digital skills, together

A practical guide for Work-Integrated Learning

thecollectivex.org

Effective practices to enhance the quality of digital skills training

Introduction

This practice guideline's purpose is to create an appreciation for the importance of Work-Integrated Learning (WIL) and a common understanding of its practical application in building quality digital skills to enable the employment of entry-level talent in digital roles.

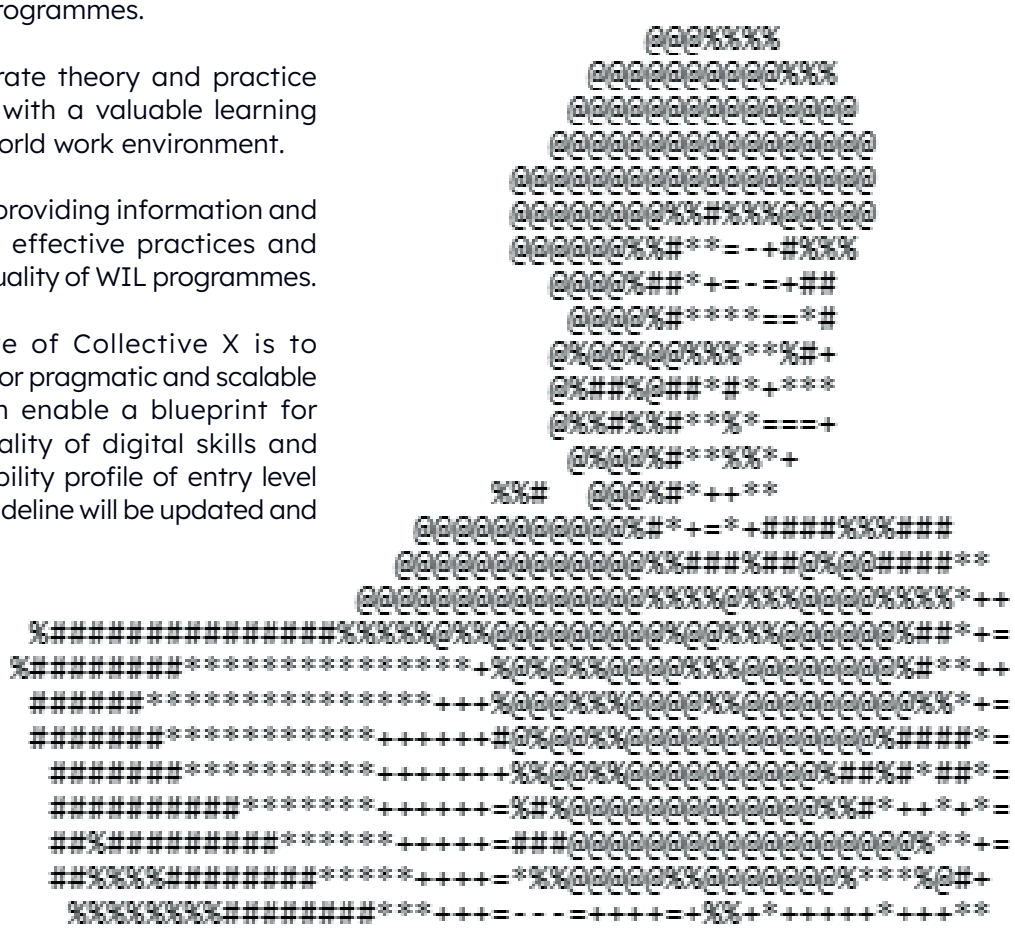
This document serves as a resource for all stakeholders involved in developing, facilitating and evaluating WIL programmes.

WIL intends to integrate theory and practice and provide learners with a valuable learning experience in a real-world work environment.

This guide focuses on providing information and recommendations on effective practices and ways to enhance the quality of WIL programmes.

The overall objective of Collective X is to innovate and solution for pragmatic and scalable WIL models that can enable a blueprint for strengthening the quality of digital skills and increase the employability profile of entry level talent. This practice guideline will be updated and strengthened as we gain more valuable insights and learnings from our ecosystem partners.

This practice guide specifically focuses on providing WIL in the PSET (Post-School Education & Training) environment through partnerships with corporates that will employ the learners in entry-level digital roles.



Problem Statement

There is an insufficient supply of relevant digital skills to fill the number of jobs available in the employment market. This negatively impacts the productivity and competitiveness of high-growth technology companies and affects the ability of businesses to be competitive, grow, and scale up their operations. Furthermore, the shortage of ICT skills poses significant constraints on the South African economy.

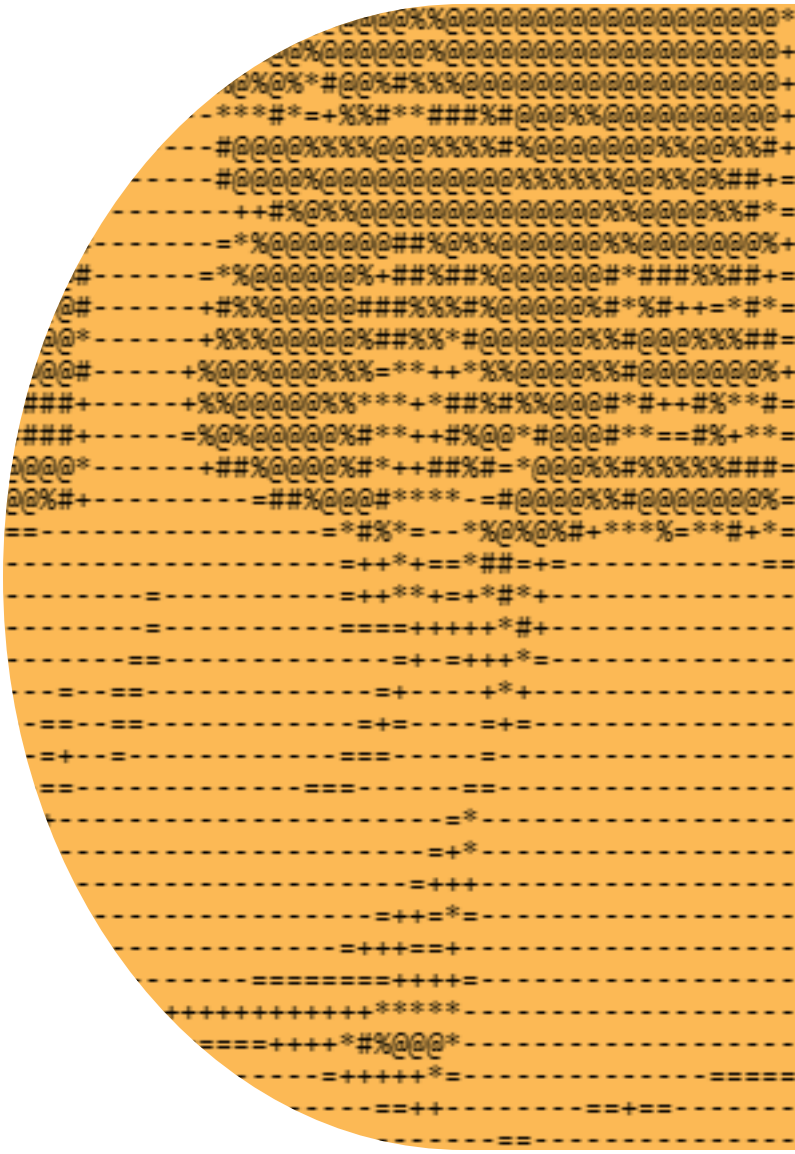
One of the primary reasons for this undersupply of digital skills is the mismatch between the competencies delivered by formal education and training systems and those required at the workplace. There is also an oversupply of skills in some areas and an undersupply of skills in other areas, which contributes to the supply and demand mismatch.

Without developing relevant, fit-for-purpose digital skills and competencies within a coordinated, collaborative, quality-driven ecosystem, the return on investment (ROI) and economic potential of investment in digital skills are unlikely to be realised. Fragmented, sub-scale projects are already contributing to employer disillusionment and fatigue. Corporates have turned to India, Eastern Europe and other countries to outsource digital work. This is despite geo-political experts advocating for global corporations to diversify their ICT centres of delivery and Business Process Outsourcing (BPO) supply chain operations.

Digital skilling has become an integral part of business strategy, and employers are raising the bar when hiring job seekers for digital roles. Essential ingredients of the route to competency include a) adopting competency standards that will result in consistently high-quality outputs, b) WIL, and c) skills such as critical thinking, problem-solving, teamwork and communication.

In this context, WIL emerges as one of the vital pathways to employment, offering unemployed youth the essential experience and attributes needed to signal work readiness and attain crucial employability skills. The benefit of mentorship, coaching, and supervision in a controlled environment builds confidence. It offers entry-level youth a stepping stone/softer landing to prepare for the pressures of the world of work.

Incorporating WIL into the route to competency pathway is not just advantageous; it is imperative to prepare learners for success in high-complexity digital roles.

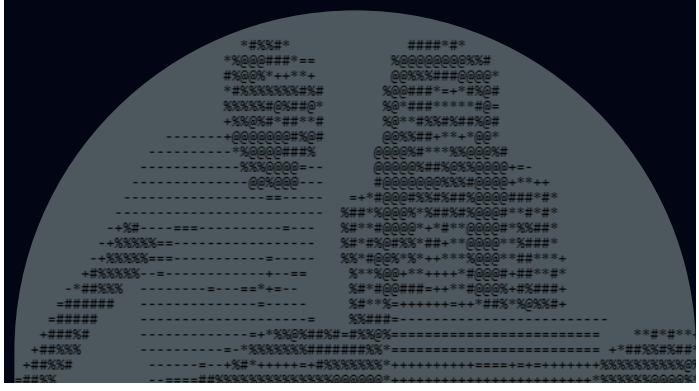


Defining Work-Integrated Learning

There are several definitions of WIL offered in the literature. Collective X has adopted the definition of WIL presented in The Routledge International Handbook of Work-Integrated Learning (2023), which is:

What does this mean to us?

An educational approach involving three parties - **the learner, educational institution, and an external stakeholder** - consisting of authentic work-focused experiences as an intentional component of the curriculum. Learners learn through active engagement in purposeful work tasks, which enables the integration of theory with meaningful practice that is relevant to the learners' discipline of study and/or professional development.



An educational approach:
intentionally supports learning through a range of practice models.

Involving three parties:
the learner, the educational institution, and an external stakeholder: all three stakeholders are engaged in the experience, where the external stakeholder, or host organisation, can be an employer, client, community organisation, government agency, or an educational institution (where the educational institution is an employer or client).

Authentic work-focused experiences:
tasks undertaken by the learner are related to activities expected at a place of practice (e.g. a workplace, a community, or remotely online with an external stakeholder).

Intentional component of the curriculum:
either curricular or co-curricular but not extracurricular. By definition, in curricular and co-curricular the learner's learning outcomes must be assessed.

Learners learn:
there is an emphasis on learning through doing while engaging with the tasks.

Active engagement in purposeful work tasks:
the learner is an active participant (i.e., not an observer) within the context of the place of practice to which the tasks are intended to be purposefully applied.

Integration of theory with practice:
applying, critiquing, and forming opinions about principles, theories, and knowledge learnt through formal teaching to authentic practice.

Meaningful practice:
the tasks are work-based, relevant to the learner and have relevant purpose for the external stakeholder, where the learner engages with their tasks in a similar way to that expected of a working professional.

Relevant to the learners' discipline of study and/or professional development:
the experience supports and correlates to the learner's knowledge and skill development requirements as part of their study and/or career interests.

Planning and designing WIL experiences

The WIL experience aims to provide learners with practical work experiences that connect theoretical concepts with relevant business tasks. In doing so, learners design effective applications to solve pertinent issues, apply various perspectives, exercise thoughtful judgement, reflect on their learnings and take risks if it will assist them in reaching their goals.

The workplace experience can be designed so that the learners partake in a combination of simulated project implementation and workplace participation:

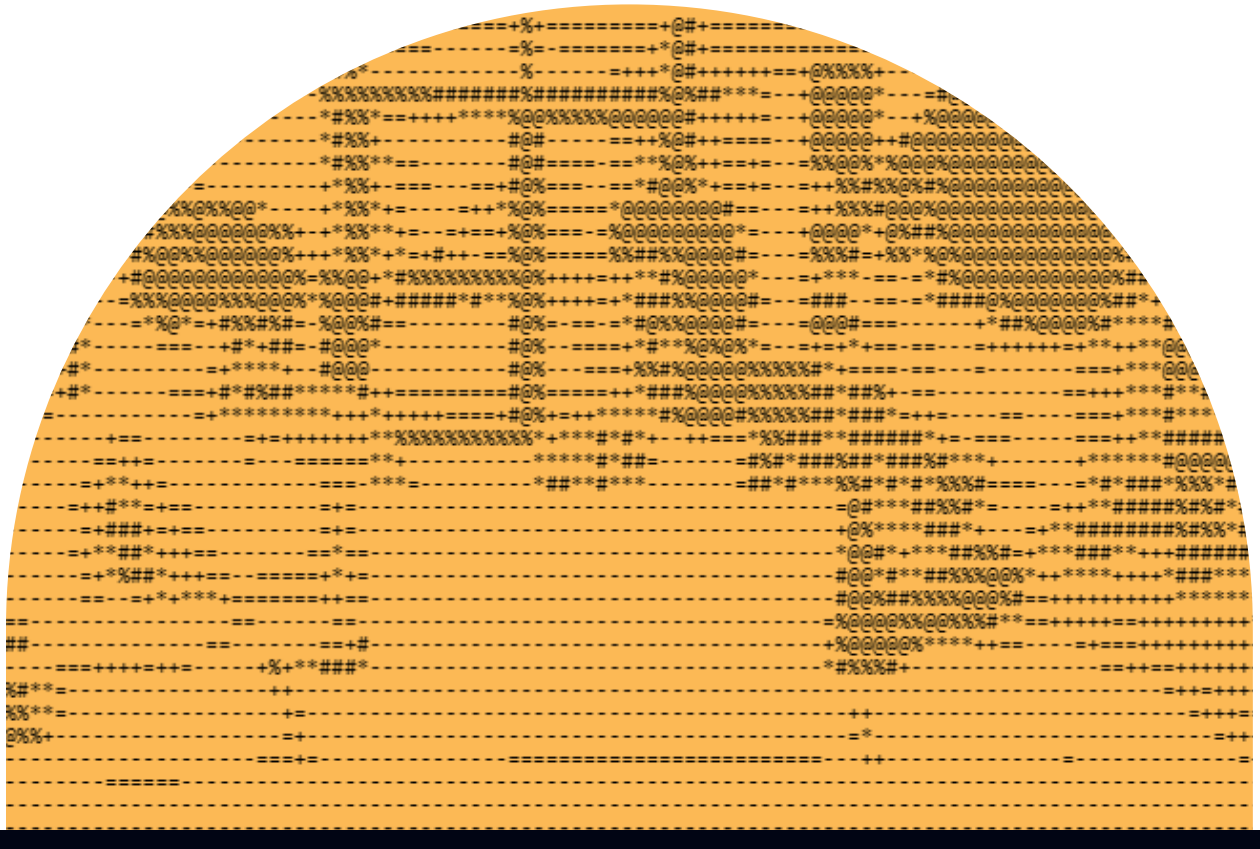
a. Simulated project implementation – when learners design, deliver, manage or evaluate a specific project as part of their work experience.

b. Workplace participation – learners engage in and contribute to the day-to-day activities of the workplace.

The selection of appropriate forms of WIL depends on the nature and purpose of the qualification, programme objectives and outcomes, institutional capacity to provide WIL opportunities, and the structures and systems that are in place within professional settings and sites of practice to support learners through the WIL journey.

Determining the learning emphasis of the WIL programme is critical to ensuring quality outcomes. Clear articulation of the learning outcomes, assessment, and the learning plan prior to developing the work integration learning activities has the greatest impact on the quality of the structured work experience.

The table below provides high-level guidelines and considerations when planning and designing the WIL experience.



	PROCESS STEP	GUIDELINES	COLLECTIVE X CO-FUNDED PROJECTS CONSIDERATIONS
1	**Theoretical / Technical Training**	• Learners can gain the theoretical knowledge and skills before and during the WIL programme.	• For the co-funded initiatives programme, learners will need to gain the theoretical knowledge and skills prior to the commencement of the WIL programme. • The programme is structured to accommodate 6 months theoretical training and 6 months WIL.
2	**Employer Partnership**	• Placements of the learner for WIL activities requires the training provider to collaborate closely with the employer partner to co-create and co-ordinate the WIL experience for the learner. • Developing and maintaining good relationships with business supervisors/mentors is vital for the success of WIL programmes. • The workplace supervisor/mentor is the host, and knows best what the business is trying to achieve. • The training provider and the workplace supervisor should co-create the WIL objectives and outcomes and jointly participate in the assessment process. • View the integration of theory and practice as the shared responsibility of facilitators, learners and the workplace supervisor/ mentor. • Agree on realistic but challenging real-world situations that the learners should experience in a simulated environment and/or in the work environment.	• The learners are employed by the employer partner during the WIL period. • Training providers will be required to define lines of responsibility and authority with the employer partner. • Training providers will be required to familiarise themselves with the employer's policies and procedures • and mitigate risk by ensuring learners are familiar with all policies and procedures through a well- structured induction programme.
3	**Learning Contract**	• The learning contract should stipulate the objectives, tasks, outcomes, and assessments of the WIL experience. • The learning contract should stipulate the roles and responsibilities of the facilitator, learner and workplace supervisor/mentor.	• A learning contract outlining the WIL programme should be prepared by the training provider and signed off by the employer partner.
4	**Define the Purpose**	• Determining the purpose and learning emphasis of the WIL programme is critical for ensuring quality outcomes that are aligned to employer expectations. • There can be multiple purposes across the different activities - examples include but are not limited to: a) generating awareness b) surfacing implicit issues c) testing ability d) providing practice to test application of theory e) testing communication, teamwork, decision making, conflict resolution skills.	• It is recommended that the purpose / learning emphasis is developed in partnership with the employer partner.

	PROCESS STEP	GUIDELINES	COLLECTIVE X CO-FUNDED PROJECTS CONSIDERATIONS
5	**Define Learning Outcomes** "After completing the work activity, learners will be able to...."	• Define the WIL outcomes and use them to guide the integration of theory and practice. • The learning outcomes are used to select the appropriate form and design of the structured work experience: o The intended outcomes will inform the nature of the partnership between the training provider and the employer partner. o The intended outcomes will inform the matching of the learner to the right workplace supervisor /mentor. o The intended outcomes will direct if the WIL activity should be a simulation-based activity in the academy or in the actual workplace. • Target learning outcomes to the proper level. Ensure they are designed to move learners to the next level of understanding but are not too complex to break learner confidence and commitment to the programme. • The following criteria should be considered when developing the WIL outcomes: o Foundational knowledge – what learners need to remember and understand o Application - what actions the learners need to be able to perform as a result of completing the WIL experience o Cognitive skills – problem solving, logical reasoning, analytic reasoning, critical thinking, visual processing o Personal skills – teamwork, adaptability, resilience, conflict resolution, creativity, time management, communication, leadership, ethics o Integration – ability to connect theory with application o Ongoing learning – inquiring, self-directed learning	• It is recommended that the learning outcomes are developed in partnership with the employer partner. • It is important to ensure the WIL learning objectives are aligned with the overall learning objectives of the course - how do the outcomes of the broader programme align with the expectations of the workplace supervisor / mentor?
6	**Determine Final Outputs and Learning Assessments** "How will you measure whether learners have successfully met the learning outcomes?"	• The final output and assessment of WIL activities should link back to the purpose and the learning outcomes determined. • The learning assessment should achieve the following objectives: a) measure that outcomes have been achieved against the required level and quality standards b) reinforce the learning outcomes and c) provide a foundation to ensure that all stakeholders (learner, workplace supervisor / mentor, instructor) share the same learning emphasis and are working towards the same learning goals. • Assessment activities can include, but are not limited to: o Written and practical tests	• It is recommended that the workplace supervisor / mentor participates in the assessment process (where practical). • On successful completion of the technical training, learners will receive a **Knowledge Badge** which can only be issued by a SFIA approved training provider. • After the WIL training has been completed, each learner will complete the SkillsTX competency assessment. The SKillsTX assessment is aligned to the SFIA competency framework and will be conducted by

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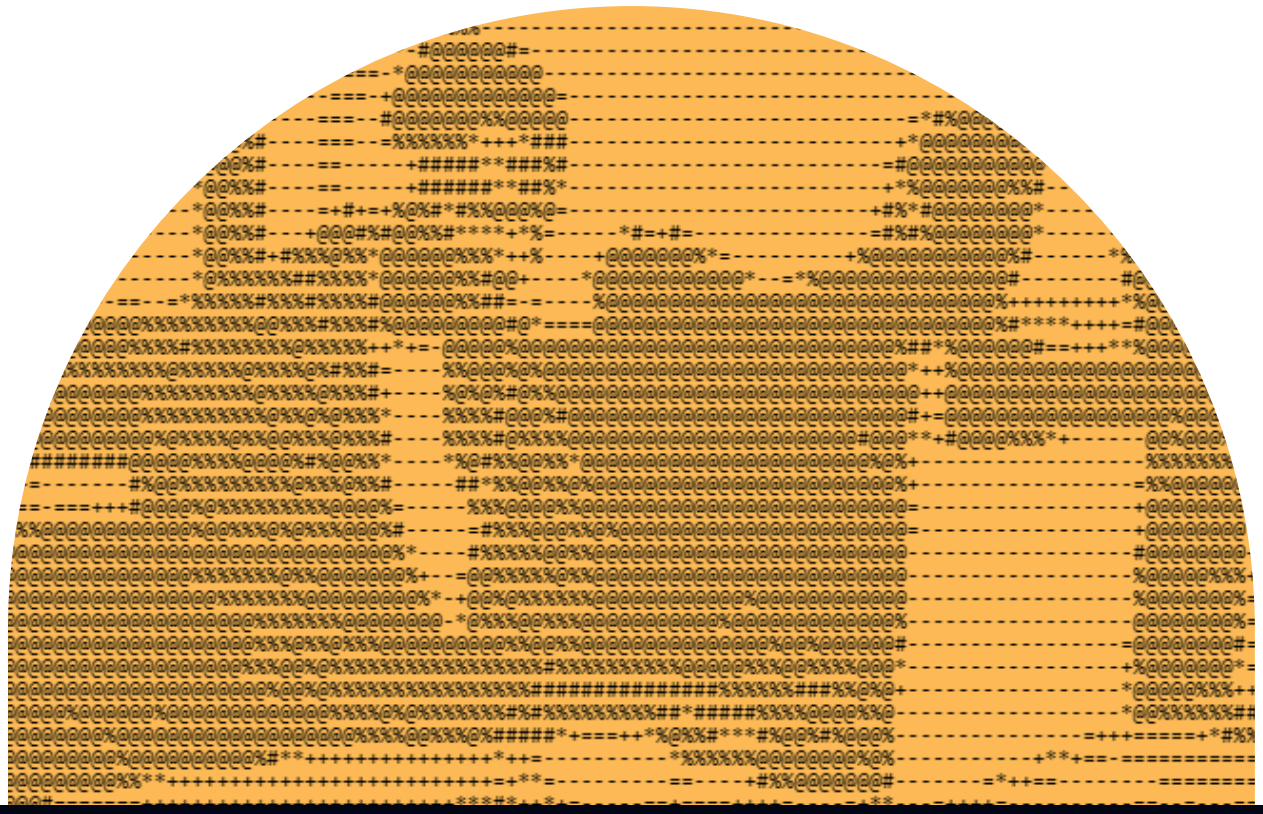
	o Assignments o Oral presentations o Portfolios of evidence o Direct observation o Project work (individual or in teams).	an accredited SFIA Assessor. • On completion of the WIL programme, the student is required to achieve a level 3 competency against the agreed outcomes. • Learners who are assessed at a SFIA level 3 competency in the role, will be issued with a **Proficiency Badge.** • Note: Shifting the skilling architecture is complex, multi-faceted and a medium-long term process. The intention therefore for conducting this assessment is NOT to screen learners out at the end of the RTC process, but rather to use it as a measure of success and guide how the solution will need to be strengthened in future initiatives to drive continuous improvement.
7 **Develop Learning Plans** "How will the learning be achieved?"	• A learning plan is the collection of tasks or activities that will assist the learner in meeting his/her learning outcomes. • A learning plan is generally developed in partnership between the learner, the instructor and the workplace supervisor/mentor. • Learners should also create their own individual learning plans, under guidance from the instructor and workplace supervisor/mentor using SkillsTX. • To assist in meeting the learning outcomes, the learning plans should include: o Clear, measurable and realistic learning outcomes o Tasks/activities that assist in reaching each learning outcome o Any applicable guidelines or expectations from the employer partner o Pre-determined evidence required to demonstrate success of the outcome o Methods and timeframes for achieving tasks and assessment of outcomes o Monitoring and assessment methods o Specific roles and responsibilities for integrating theory and practice o Guidelines for successful achievement of outcomes • In translating learning outcomes into specific workplace tasks, Cooper et al. (2010) suggest seven different approaches (as described in Reddan, 2011). Learning plans can draw upon one or more approaches that may be used to actualize learning outcomes in the WIL journey, including:	• Skills TX is an official assessment partner registered with the SFIA Foundation. **Training provider and learner registration on SkillsTX:** • Training provider and learner register online for access into the SkillsTX platform • Training Provider will create an initial profile on SkillsTX and a link sent to the learner to complete. • The SkillsTX learner profile creates a structured and real-time talent management tool for the learner, training provider, mentors and employer partner to actively assess gaps in the route to competency journey, implement appropriate interventions and track the achievement of key competency milestones and achievements. **Baseline Assessment** • On enrolment and commencement of the training programme the learner will be required to complete a baseline assessment on SkillsTX. • The assessment is aligned to the role and the SFIA competency framework. • The baseline assessment provides insight into what gaps need to be

	PROCESS STEP	GUIDELINES	COLLECTIVE X CO-FUNDED PROJECTS CONSIDERATIONS
		o The work required approach - learners work through an agreed-upon set of tasks while in the workplace. o The reflective assessment approach - learners observe day-to-day practice in the workplace and reflect on decisions made. This approach is often accompanied by the use of reflection exercises such as a reflective journal. o The work/learning contract approach - learners negotiate a set of workplace responsibilities with their supervisor to be achieved in a defined timeframe. o The project work approach: - learners are responsible for completing a specific project within a set time frame, concluding with a written report. o The critical incident analysis approach - learners record verbatim an incident in which they were involved. They discuss their response with their instructor / mentor and evaluate how their actions could have been more effective. o The case study - learners provide a study of an individual, feature or event in the workplace, with a plan for change or improvement. o The direct observation approach - learners are observed over time in the workplace. A record is maintained of observers' estimations of their performance in relation to specific learning outcomes.	closed to get the learner to a SFIA level 3 competency level.
8(a)	**Design Simulation-based Learning Tasks**	• Simulation-based learning is a form of experiential learning where learners are tasked to solve complex problems in controlled environments through "real-life scenarios". • Intentionally designed, authentic simulated experiences and integrated guided reflections promote a wide range of knowledge and skills. • The strength of scenario-based learning or project work is that several competencies can be taught during one session. • Simulation-based experiential learning allows learners to absorb knowledge and practice skills in a realistic but safe environment. • A simulated experience may be research or applied (project based): o The research project can address specific organisational needs for evaluation o Project development can be beneficial for fulfilling a practical need in the workplace, as well as enhancing learners' practical and project management skills	• WIL learning and reflection should be guided by facilitators and workplace supervisors / mentors.

	PROCESS STEP	GUIDELINES	COLLECTIVE X CO-FUNDED PROJECTS CONSIDERATIONS
		• The most impactful form of WIL are team projects. Team projects have the benefit of providing invaluable teamwork experience but can also be operationally scaled more easily than many other forms of WIL. A single employer project can be duplicated across many teams. It is recommended that learners should work in teams of no more than 6 - 8, with supervision, on a challenge defined by an employer. • Employers value collaborative effort and teamwork. Team or peer-based activities resemble the work environment and strengthen these necessary skills. • An additional strength of scenario- based project work is that several competencies can be taught during one session. • To assist in designing the simulation activities, the following should be considered: o Specific pedagogical practices that can enhance integration of theory and practice before, during and after the work experience. o Express high but realistic expectations for achievement of theory/practice integration. o Make both learning and behavioural expectations clear. o Include activities that develop trust, confidence, self-efficacy, risk management, and taking responsibility. o Provide well-organised learning activities that encourage learners to draw connections between theory and practice. o Provide opportunities for learners to be actively involved - interact and share with others, question, discuss, debate. o A project summary of key learnings and what could be done differently should be produced upon completion of the simulation activity.	
8(b)	**Design Workplace Participation Tasks**	• Work participation is when learners partake in and contribute to the regular day-to-day activities of the workplace. • The learners get exposed to the work environment in which they will be placed and develop professional skills and knowledge. • It is recommended that learners are exposed to workplace activities/meetings through virtual platforms if they are not able to be physically located in the actual work environment.	• WIL learning and reflection should be guided by facilitators and workplace supervisors / mentors. • Typically, WIL takes place in the actual business environment, however simulated activities can also be effective in the training academy environment. • Employer partners may not be geared to accommodate learners in their work environment. It is envisaged that most of the WIL will take place at the training providers' academy.

	PROCESS STEP	GUIDELINES	COLLECTIVE X CO-FUNDED PROJECTS CONSIDERATIONS
9	**Mentorship**	• Both the training facilitator and the workplace supervisor fulfil the role of mentors. • Mentors should encourage teamwork, foster positive attitudes about the work setting, facilitate reflection, encourage risk taking and support the transition from theory to practice. • Another way to facilitate a positive learning environment is through the involvement of peer mentors. Peer mentors have the ability to make learners feel more relaxed, comfortable and confident in the work setting, are able to provide guidance and support, and reflective interaction. • Peer mentors should not replace workplace mentors but can act as additional support for the learner during the WIL experience.	• The training facilitator/mentor will be the primary point of reference for the achievement of the WIL outcomes. • The workplace supervisor/mentor will be the primary point of reference within the organisation where the learner is employed.
10	**Reporting**	• The training provider, employer partner and COLLECTIVE X must agree on reporting templates and the timelines for report submission.	• A regular report of the learner's journey and progress against the learning contract should be submitted to the employer partner and COLLECTIVE X. COLLECTIVE X will provide reporting templates and make use of SkillsTX to support reporting.



The Experiential Learning Cycle

Experiential learning is a cyclical process that involves observation, reflection, and action. It occurs as a result of problem solving and requires thinking and reflection guided by facilitators, mentors, and supervisors. Similar characteristics define the pedagogical approach of WIL.

For simulations to constitute experiential learning, the simulation-based learning activity must be planned within an experiential learning framework, with guided and structured reflections and pre-brief and debrief meetings and with a workplace (or simulated workplace) connection.

Kolb's Experiential Learning Cycle

The most commonly used framework for guiding the design of experiential learning activities is Kolb's Experiential Learning Cycle. Kolb's theory understands learning as a holistic process where one continuously creates and implements ideas for improvement.

According to Kolb, effective learning can only occur when an individual completes the full cycle of the following four stages: concrete experience, reflective observation, abstract conceptualisation and active experimentation.

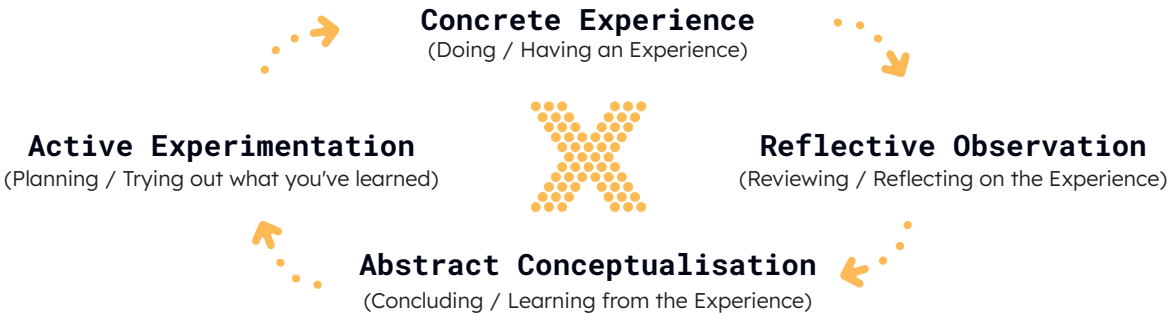


FIGURE 1: KOLB'S EXPERIENTIAL LEARNING CYCLE, KOLB AND FRY (1984)

The four stages can be applied to simulation-based experiential learning as follows:

Stage 1: Concrete Experience - when learners actively do the simulation exercise.

Stage 2: Reflective Observation - when learners are encouraged to reflect on their experiences with the simulation exercise.

Stage 3: Abstract Conceptualisation - where the learners will synthesise their learning from the simulation exercise and develop a theory, framework, hypothesis, or model that can help them to explain how the simulation exercise was conceptualised.

Stage 4: Active Experimentation - where learners identify ways in which they could test the theory, framework, hypothesis, or model that they identified previously in Stage 3.

In some cases, it may be more appropriate to start with Kolb's Experiential Learning Cycle at Stage 3 - with the development or identification of a theory, framework, hypothesis, or model and determine ways to test it. Learners may cycle through the stages more than once.

The table below provides high-level guidelines for designing the implementation of the WIL experience.

	PROCESS STEP	GUIDELINES
1	**Pre-Brief**	• The pre-brief prepares the learners for the simulation-based learning experience. • Suggestions for planning and facilitating effective pre-briefing sessions: o Present an overview of the simulated-learning experience and cover the following components: a) the goals and objectives of the simulation-based exercise b) logistical considerations about the activity, and c) introduction of all participants (learners, facilitators, supervisors, mentors). o Provide an overview of the learning environment / available resources. o An element of surprise can be factored into the simulation to reproduce the real-world environment accurately. This should be used with caution to avoid adding too much stress to the scenario. o Address the roles of the learner, facilitator and mentor. o Advise learners if they will be assessed for the exercise, and if so, discuss the assessment method and procedures. o Clarify any questions that learners may have.
2	**Concrete Experience**	• The concrete experience signifies where the process begins. • The key to learning lies in the learner's active participation to acquire new knowledge and learn the skill of applying the knowledge. • The experience could involve being exposed to a new task or a new way of executing a task/ project the learners are already familiar with.
3	**Reflective Observation**	• After engaging in an experience, learners should reflect on the task or activity. • Reflection activities should be guided by a deliberate connection between theory and practice. • This stage in the learning cycle should allow the learner to discuss the experience with others and ask questions. • Discussing the experience with others helps to ease the reflection process by introducing other points of view. • Reflection assists learners in thinking critically about their work experiences. • In addition, reflection can assist in the development of valuable life skills including, decision making, goal setting, problem solving, risk taking, the ability to integrate multiple concepts, teamwork, and communication. • The timing of the reflection is important. Facilitators should encourage continuous reflection both during and following the work experience.
4	**Abstract Conceptualisation**	• In this stage, learners form new ideas or alter their current understanding based on the reflections that arose from the previous stage. • Learners move from reflective observation to abstract conceptualisation when they begin to classify concepts and form conclusions on the events that occurred. • Abstract conceptualisation gives learners the chance to assess how their new ideas can be applied in the real world.
5	**Active Experimentation**	• This stage offers an opportunity for learners to test out their new ideas and the lessons gathered from the experience. • By actively experimenting with different concepts, individuals can learn how to associate what they have experienced with new ideas and innovations.

	PROCESS STEP	GUIDELINES
6	**Debrief**	• The primary objective of the debrief is to give learners the opportunity to reflect on the simulation- based exercise and maximise the learnings. • In addition, the debriefs could also be used to get learner feedback and recommendations for future iterations of the exercise. • It corresponds to Stage 2: Reflective cycle in Kolb's Experiential Learning Cycle and provides a base for Stages 3 and 4. • Suggestions for planning and facilitating effective debriefing sessions: o The primary objective of the debrief is to give learners the opportunity to reflect on their learning and professional development based on the simulation-based exercise. o It is helpful to use a structured approach to guide debrief sessions to make sure learners have the opportunity to learn from the reflections of the group. o The debrief should happen immediately after the end of the simulation. o The instructor/mentor can lead the debrief or have learners lead their own debriefs in groups. o The debrief should include a quick summary of the simulation and the learning objectives. o Learners' questions should be addressed before completing the debrief session.

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