

WORK-INTEGRATED LEARNING QUALITY FRAMEWORK, AAA★

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ABSTRACT

In many parts of the world, including Canada, there are calls for an increase in the number of work-integrated learning (WIL) opportunities for post-secondary students. As attention is paid to increasing the quantity of WIL programs, it is critically important to ensure that attention is also paid to the quality of WIL experiences for key partners. This paper presents an updated AAA★ WIL quality framework.

Since AAA★ was first published in 2018, the nature of work has undergone rapid transformation. In response, WIL has expanded and evolved, with new challenges emerging. It is important that our perceptions of quality in WIL also adapt to match these changes and to address the challenges currently facing the WIL landscape. This paper provides an overview of the WIL quality landscape, explores important changes to the WIL ecosystem, and presents an updated WIL quality framework: AAA★.

The AAA★ framework, and the remainder of the paper, is comprised of five sections:

1. Concepts and terminology used in the framework.
2. The *aims* of each of the WIL partner groups.
3. The *actions* required by each partner to ensure success.
4. The *achievements* of each of the partner groups.
5. A continuous improvement process for WIL programs.

This work will enable those responsible for WIL programs to identify potential gaps in providing quality WIL as well as providing a list of potential outcomes and measures that can be used to evaluate WIL programs.

INTRODUCTION

QUALITY IN HIGHER EDUCATION

While the term quality is frequently used, there is no universally accepted definition. It is a multidimensional and evolving concept that must be interpreted within the broader educational, economic, political, and social landscape (Schindler et al., 2015). Within organizations, quality often describes the desired end-state of products or services. The aspiration to offer quality products and services has led organizations to examine and articulate the processes that contribute to quality outputs. Quality assurance and quality improvement frameworks exist to guide organizations towards a culture of quality in support of meeting the organization's mission and vision. These frameworks can also support a continuous improvement process, aid with identification of priorities and with resource allocation.

Within higher education, post-secondary institutions strive for excellence. They aspire to offer quality learning experiences that will lead to positive outcomes for their graduates. In addition to describing the elements that lead to quality education, quality assurance frameworks within higher education can also help prospective students choose a course of study; allow faculty and administrators to monitor and improve courses and programs; help institutions benchmark and market their performance; and allow governments and other organizations to make decisions regarding funding, policy development, and accountability regarding post-secondary education (Barbato et al., 2022; Coates, 2005).

The benefits of quality assurance frameworks are numerous, but given the challenges around defining quality, the question arises, how is quality measured within the context of post-secondary education? Despite the lack of consensus on a definition of quality, common themes emerge across definitions. Quality can be conceptualized as purposeful, exceptional, transformative, and accountable (Harvey & Green, 1993; Schindler et al., 2015). Knowing what quality is becomes important when considering its measurement. Much like quality itself, there is no agreed upon definition of quality assurance (Ryan, 2015; Schindler et al., 2015). However, many existing definitions discuss quality assurance as a set of processes, policies, or actions, with increasing demand for an emphasis on aspects of quality that pertain to continuous improvement (Schindler et al., 2015). In this paper, we will apply these conceptualizations of quality assurance in higher education to work-integrated learning (WIL). We will begin with a discussion of the importance of an ecosystem approach when exploring quality in WIL. We will then explore current conceptualizations of quality in WIL before discussing recent developments in the WIL landscape, highlighting emergent topics that require inclusion in any WIL quality framework. Finally, we will present an updated AAA★ quality framework.

AN ECOSYSTEM APPROACH TO QUALITY WIL

Activity theory offers a framework for understanding learning (Engeström, 2001). It stresses the importance of considering learning as embedded in social, cultural, and historical contexts. The learner does not exist in isolation, instead they shape and are shaped by their environment (Engeström, 1987, 2001). Activity theory has been used to further our understanding of learning in WIL (Keating et al., 2016; Khampirat & McRae, 2016; McRae, 2014, 2015; McRae & Woodside, 2023) and has been applied as a theoretical foundation for exploring quality in WIL (Keating et al., 2016; Khampirat & McRae, 2016), highlighting the importance of the multi-component activity systems required to support WIL programs (Keating et al., 2016; Khampirat & McRae, 2016; McRae, 2014). It argues that learning is not the result of isolated actors but rather emerges from the interactions within a broader ecosystem (Engeström, 1987; McRae & Woodside, 2023). To fully explore quality in WIL and ensure a transformative learning experience, we must consider the wider landscape of contextual influences (McRae, 2014, 2015; Rose, 2023). We cannot focus on individual WIL components, instead, we need to think of WIL as being part of a dynamic, interdependent system: a learning ecosystem.

Although the concept of a learning ecosystem is challenging to define (Economist Impact, 2022), several definitions have emerged in the literature. Learning ecosystems are comprised of purposeful connections between diverse groups (e.g., schools, cultural organizations, businesses, community organizations, government agencies) to create learning opportunities and pathways to success (Clayton & Shafique, 2025; Hannon et al., 2019). Other definitions of learning ecosystems emphasize the interconnectedness and interdependence of these groups (Organization for Economic Co-operation and Development [OECD], 2017b; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2025). These definitions fit well with the concept of learning in WIL and the interconnectedness of the various WIL partners. Recent research also points to the value of applying the concept of learning ecosystems to our understanding of WIL (Dorland et al., 2020; Fergusson et al., 2021; McRae & Woodside, 2023).

Both activity theory and the learning ecosystems approach emphasize the contextual nature of learning and view learning as emerging from a complex, interdependent system. They offer a useful lens with which to examine quality in the context of WIL. Throughout the AAA★ framework, we adopt this ecosystem approach and explore the aims, actions, and achievements of the interconnected partners making up the WIL ecosystem. The framework also considers contextual elements of the ecosystem, and

we encourage the reader to apply their own contextual orientation when applying the framework within their own local context.

We have applied the AAA★ framework in practice over the last seven years to examine quality in the development and assessment of WIL programs. Since its original publication, the framework has been widely cited in the literature and has been used in diverse contexts. For example, it has been employed to assess the quality of WIL programs (Mukuria, 2022), to inform the establishment of new quality frameworks (Campbell & Pretti, 2023), and as a guide to incorporate intercultural effectiveness into WIL programs to improve quality (McRae et al, 2023). Researchers have also highlighted the value of considering contextual factors when using the framework (Rose, 2023) and stressed the importance of stakeholder input in the continuous improvement process (Armitage & McRae, 2024).

Our own uses of the framework and those of our colleagues have further highlighted the importance of taking an ecosystem approach, considering the vital role of each partner in the WIL experience, and the context that the WIL program finds itself in.

In doing so, the AAA★ framework offers an adaptable tool for assessing quality, helping ensure that WIL programs remain sustainable as the world of work continues to evolve.

Before turning our attention to an overview of the framework and its update, we will first explore other work on quality in WIL and recent developments in the WIL landscape.

QUALITY IN WIL

While attention has been paid to quality standards and quality assurance processes for post-secondary education (Tran et al., 2025), these quality standards often neglect WIL (Yorke & Vidovich, 2014). WIL combines classroom learning with time working in or with industry, public or community organizations. WIL programs are often seen by governments, academic institutions, students and parents as a way of preparing students with the skills and experience they need to be successful (Dewi & Velasquez, 2023; Peters et al., 2014; Sattler & Peters, 2012, 2013). Industry, public and community organizations see WIL programs as a way to develop the next generation of talent and meet the short-term needs of their organizations (Sattler & Peters, 2012).

Several good practice guides have been developed to support WIL, providing guidance on key elements of quality WIL programs (e.g., Business/Higher Education Roundtable [BHER], 2016; Council on Higher Education, 2011; Martin et al., 2011; Orrell, 2011; Sachs et al., 2017; Stirling et al., 2016, 2024; Winchester-Seeto, 2019). While these guides offer valuable insights, they do not allow institutions and WIL partners to directly assess the quality of their WIL programming. Prior to the publication of the AAA★ in 2018 (McRae, Pretti, & Church, 2018), few quality frameworks for WIL existed. Smith (2012) developed a quality framework for the evaluation of WIL curriculum which can be used across multiple types of WIL, but it is limited in that it only examines the WIL curricula from the student perspective, and it doesn't link the processes involved in developing and offering WIL programs to the desired student outcomes. The AAA ★ framework was developed based on the PPOA quality standards framework, which describes the purpose, process, outcome and assessment for key stakeholder groups across three time periods (before, during and after the WIL experience) to support quality outcomes (Khampirat & McRae, 2016). AAA★ extends on the foundation of this framework by exploring quality WIL at the program level.

Since the original publication of AAA★ in 2018 (McRae, Pretti, & Church, 2018), the focus on quality in WIL has grown, with quality becoming a prominent issue in the WIL literature (Ferns & Arsenault, 2023; Peters & Shewan, 2024; Zegwaard & Pretti, 2023a). Reflecting this trend, additional WIL quality frameworks have been developed since 2018. For example, Smith et al. (2022) updated their quality framework, but again the focus is on curriculum rather than examining quality across the entire WIL program. Campbell et al. (2019) developed a framework to ensure the institutional quality of WIL. While more extensive in nature, encompassing the student experience, curriculum design, institutional requirements and stakeholder engagement, this model focuses on actions that the institution can take to ensure quality WIL without consideration of other partners in the WIL experience (e.g., students, host organizations, educators, government). The World Association for Advancing

Co-operative and Work-Integrated Education (WACE) developed the WACE global quality framework (WACE, 2024). This framework synthesizes global perspectives on WIL quality but limits its focus to students, institutions, and host organizations.

The AAA★ framework is unique in that it focuses on quality at the program level, and emphasizes the entire WIL ecosystem, rather than isolated parts. The framework recognizes that for WIL to be effective, it needs to be supported by an interconnected system of five key partners:



While recent frameworks have included students, host organizations and academic institutions, the AAA★ is unique in also considering the roles of educators and government in the WIL ecosystem. Within this ecosystem, maintaining quality requires a delicate balancing act. Each partner brings unique aims, expectations, and contributions to the WIL experience and these need to be balanced to ensure a high-quality WIL experience. The AAA★ framework can help to maintain that balance. Maintaining quality is an evolving process achieved only through balanced partner relationships.

Finally, Campbell and Pretti (2023) brought together the institution-level focus of Campbell et al.'s (2019) quality framework with the stakeholder focus of AAA★ to propose a model intended to guide the development of a global WIL quality framework. While the model incorporates key elements from the earlier frameworks, it remains a preliminary step. It does not yet offer a fully developed quality framework, and it doesn't incorporate emerging themes in the WIL literature in its update. For example, the original AAA★ and this new model do not consider how WIL programs might navigate technological changes including the rise in AI and remote work and their impact on quality WIL. These are key developments that are currently influencing the WIL landscape (Peters & Pizarro Milian, 2024; Peters & Shewan, 2024). WIL quality standards are dynamic (Peters & Shewan, 2024), and it is imperative that they continue to evolve to reflect changing WIL practices.

RECENT DEVELOPMENTS IN THE WIL LANDSCAPE

In recent years, the world of work has experienced rapid transformation with globalization, changing demographics, and rapid technological advancements reshaping the labour market (Jappie, 2022). The COVID-19 pandemic further accelerated these changes, normalizing remote and hybrid work, and placing a greater emphasis on flexibility. In response, WIL has had to adapt to ensure students are equipped with the skills they need to thrive in the constantly changing employment landscape.

> **As WIL continues to evolve, we must ensure that the quality of WIL experiences is maintained.**
>
> Dean & Campbell, 2020

To achieve this, we need to revisit and update quality frameworks, such as AAA★ to reflect recent developments in WIL. To identify emerging topics that would contribute towards ensuring a quality WIL experience, we reviewed recent developments in the WIL landscape and the future of work. This resulted in the identification of five key topics highlighted in the literature as essential for the future of WIL that were not prominently featured in the original AAA★.

These topics include equity, diversity, inclusion, and accessibility (EDIA), the importance of preparing students for the future of work, including advances in technology and the rise of remote work, the importance of professional development for WIL practitioners, the importance of student support with a focus on wellbeing, and the importance of adequate training and support for WIL supervisors. A justification for the inclusion of these topics in the updated AAA★ can be found in Figure 1.

After identifying the five new topics to be incorporated into the updated AAA★ framework, we conducted a review of the WIL literature on each topic. For the topics identified as key contemporary issues in WIL (Ademuyiwa et al., 2024 – EDIA, remote WIL, practitioner development, and student support), we reviewed all

relevant articles published in the International Journal of Work-Integrated Learning (IJWIL) since 2018. We also examined recent publications exploring the current WIL landscape (e.g., Peters & Pizarro Milian, 2024; Zegwaard & Pretti, 2023c) and reviewed the reference lists of these articles and books to identify additional relevant literature. For newer and less established topics, such as artificial intelligence (AI) in WIL, we performed searches in academic databases using relevant keywords. All literature was reviewed with the aim of identifying actionable recommendations to support high-quality WIL experiences. These recommendations have been integrated throughout the updated framework. References throughout the framework have also been updated to incorporate more recent research in the field of WIL.

Figure 1:
Emerging WIL Topics and Justification for their inclusion in the AAA★ Framework

Equity, Diversity, Inclusion, and Accessibility (EDIA)

- EDIA has been identified as a key topic and challenge currently facing the WIL ecosystem.[a, b, c]
- It has been argued that a consideration of EDIA should feature in all WIL quality frameworks.[d, e]
- This topic is included in three of the recent WIL quality frameworks published since 2018.[f, g, h]

Future of Work Preparation (i.e., remote WIL, advances in technology)

- Remote WIL,[a, i] navigating technological change,[b] and the application of artificial intelligence[i] in WIL have been identified as key developments in WIL in recent years.

Practitioner Development

- Practitioner development has been identified as a key development and issue currently facing the WIL landscape.[a, i]
- This topic is included in three of the recent WIL quality frameworks.[f, g, h]

Student Support with an Emphasis on Wellbeing

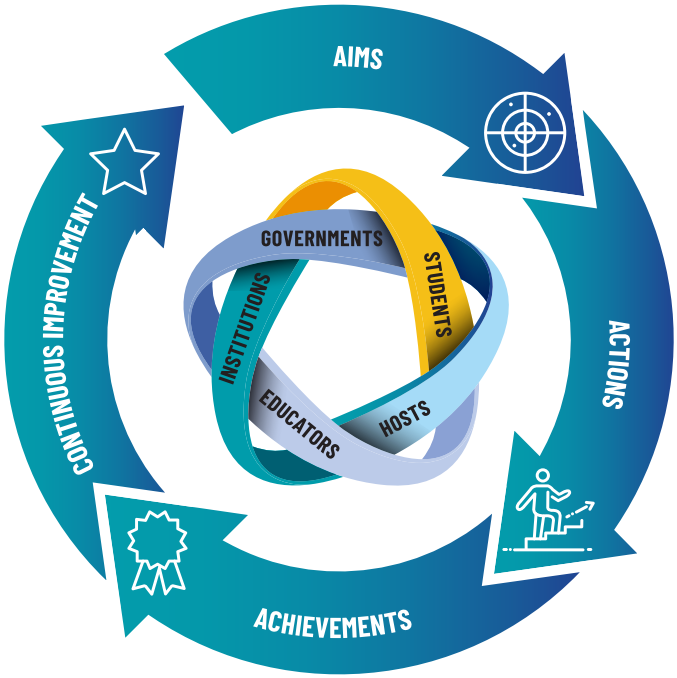
- The topic of student support and the importance of wellbeing has been identified as a key challenge currently facing the WIL landscape.[a, c]
- The topic of student support is included in three of the recent WIL quality frameworks.[f, g, h]

Supervisor Support

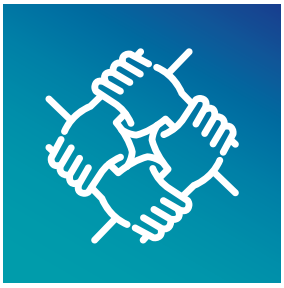
- The topic of ensuring supervisors have support and adequate training has been identified as an important gap in the WIL literature.[j]
- This topic is included in two of the recent WIL quality frameworks.[g, h]

[a]Ademuyiwa et al., 2024. [b]Peters & Shewan, 2024. [c]Zegwaard & Pretti, 2023a. [d]Ferns & Arsenault, 2023; [e]Winchester-Seeto, 2019, [f]Smith et al., 2022; [g]Campbell et al., 2019: [h]WACE, 2024; [i]Peters & Pizarro Milian, 2024. [j]Fannon et al., 2024.

INTRODUCING THE AAA★ FRAMEWORK



There are five main sections to the framework:



SECTION 1

Provides the foundation by defining concepts and terminology that will be used in the framework. It also introduces the five primary partner groups: the students, the host organizations/employers, the educators, the academic institutions and governments.



SECTION 2

Highlights the literature on the Aims of the five partner groups for participating in or supporting WIL programs, answering the question of "What are the WIL goals for each partner group?"



SECTION 3

Describes the Actions that have been identified in the literature as critical for the quality of WIL programs for the primary partner groups. This section will address the question of "How is success enabled for each of the partner groups?"



SECTION 4

Outlines the expected Achievements answering the question, "What are the outcomes, impacts, measures and key performance indicators that capture achievements for each of the partner groups?"



SECTION 5

Synthesizes what has been laid out in Sections 1 to 4 and outlines a continuous improvement process for WIL programs which will "Articulate Aims", "Accomplish Actions" and "Assess Achievements".

SECTION 1

DEFINITION, CONCEPTS AND TERMINOLOGY

Before describing the framework, it is important to first define WIL and to introduce the various forms of curricular WIL that exist in many post-secondary institutions. While it is easy to get caught up in debates on definitions and taxonomies for WIL (McRae & Johnston, 2016; Sattler, 2011), this framework uses the following definition, which was designed to capture current understanding of what constitutes WIL:

An educational approach involving three parties – the student, academic 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, pg. 39



This definition and the original AAA★ framework use the term stakeholder to refer to the key parties involved in the WIL ecosystem. In the updated AAA★ framework, we move away from this terminology. Rather than using the word stakeholder, we use the term partner to describe these core groups. There are two reasons underscoring

this change in terminology. First, we are no longer using the term stakeholder as part of our commitment to EDIA. Language is constantly evolving to reflect the principles of EDIA, and we are changing our terminology to ensure that it aligns with inclusive communication practices. Second, we also believe that the term partner is a better fit for the ecosystem approach of the AAA★ framework. The term conveys a sense of collaboration, active participation, and mutual benefit. The term reflects the interconnected nature of the WIL ecosystem, where students, educators, academic institutions, host organizations/employers and government all work together to create meaningful, quality learning experiences.

TYPES OF WIL AND COMMON CHARACTERISTICS

In the Canadian context, Co-operative Education and Work-Integrated Learning Canada (CEWIL) have defined and adopted nine types of WIL (CEWIL, 2021):

Internships	Co-operative education	Apprenticeship
Applied research projects	Entrepreneurship	Service learning
Field placement	Work experience	Mandatory professional practicums

Each WIL type has its own unique characteristics, yet they all align with the core definition of WIL. While the terminology used here is grounded in the Canadian context, the AAA★ quality framework is designed to be applicable more broadly, offering a tool to evaluate the quality of WIL programs globally. Over the past seven years we have applied the original AAA★ framework internationally to support the development of high-quality WIL programs. Through this practical application, we realized the importance of considering WIL as an interconnected ecosystem. Our experience has confirmed the importance and relevance of the Canadian WIL ecosystem as a model for international contexts.

For a quality framework to be effective on a global scale and across the many different types of WIL, it is essential to recognize the ecosystem nature of WIL and to focus on the shared attributes that define quality WIL programs.

The common characteristics that define quality WIL programs are (McRae & Johnston, 2016):

1. Meaningful experience in a workplace setting.
2. Curricular integration of workplace learning and academic learning.
3. Student outcomes that lead to employability.
4. Reflection.

These four characteristics can be reframed using **P.E.A.R.** which identifies the key components for quality WIL as **pedagogy, experience, assessment, and reflection**.

P



Pedagogy

WIL needs to be integrated into the overall curriculum. When it occurs, for how long, and how it will be taught are considerations that need to be factored into any curricular planning. Will there be one or many instances of experiential learning? At what stage in the student's curriculum will the learning occur? How does the experience weave in and through the other courses in the curriculum?

E



Experience

A number of logistical considerations are necessary for successful experiential learning. These might include how the experiences will be funded, the location of the experiences, any associated risks, and the mitigation and management of those risks. Processes around student selection, site selection, and supervision need to be factored

into plans for the experience.

The experience itself needs to allow for the development of the outcomes and capabilities. This includes not only the object of the experience but also the environment in which the learning is situated. The environment should be supportive of the student as a learner and forgiving of inexperience, establishing conditions for a positive educational experience (Hay & Fleming, 2021; McRae, 2015). The learner needs opportunities to have direct involvement and make important contributions within the host organization in ways that are meaningful to the learner's academic, personal, and career goals (McRae & Johnston, 2016).

The host organization must also set the conditions for the learner by providing resources such as equipment, space, supervision, cooperative team members, and a role that is suited to the learner's capabilities (McRae, 2015). These are critical components of a successful experience.

A



Assessment

The assessment of the experiences requires the establishment of learning outcomes. These learning outcomes should align with program and even institution-level learning outcomes. In the case of WIL, these learning outcomes relate to the development of skills and attributes that are relevant to the workplace context and develop the learner's capacity to contribute as a member of a workplace, as an entrepreneur, and as a member of ethical civic society (McRae & Johnston, 2016).

R



Reflection

A critical component of learning from experiences is reflection. Quality experiential programs support critical self-reflective practices in, on, and for each experience (Schön, 1987). The purpose of this reflective WIL process is

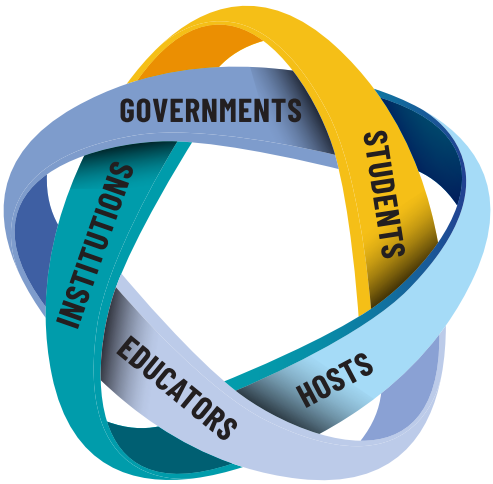
to encourage critical, analytical, and systems thinking (Martin & Rees, 2019). It also facilitates the learner's understanding of their skills, knowledge, attributes, and capacity to contribute as well as facilitating the integration of learning from the workplace and academic program (McRae & Johnston, 2016). Critical self-reflection on disorienting events that the learner may have experienced can lead to transformative learning (Mezirow, 1998). Transformative learning results in a shift in beliefs and worldviews and contributes to the capacity of the learner to contribute further (McRae, 2014, 2015).

When all four elements—**pedagogy, experience, assessment, and reflection**—are in place, the groundwork has been set for quality WIL. When designing and delivering WIL, a consideration of the field of career development learning can also be very useful to ensure high quality experiences (McRae & Woodside, 2023). Every WIL experience should ensure genuine career development learning opportunities are available to students (McIlveen et al., 2011).

WIL PARTNERS

WIL is a collaborative endeavor, and the perspectives of multiple partners need to be incorporated to ensure the quality of WIL outcomes (Green et al., 2023).

This framework will describe the aims, actions, and achievements for five primary partner groups: students, host organizations/employers, educators, academic institutions, and governments.



Students participate in WIL courses and programs; host organizations or employers work with institutions to offer WIL opportunities to students; educators work with students and host organizations to design and support WIL experiences; and academic institutions and governments provide the necessary conditions to support students, host organizations and educators in their WIL participation. The academic institution category originally included educators, but as the framework progressed, when considering their aims, actions, and achievements, the educator partner emerged as a distinct entity and is thus considered as a separate partner. This educator partner also includes other staff involved in the WIL program, such as WIL practitioners. These are individuals involved in facilitating the WIL experience, playing roles in various elements of the WIL process including relationship building, organizing WIL experiences, and the assessment of learning during those experiences (Zegwaard et al., 2019).

Each of these partners has a connection to quality WIL as described by the key aspects identified by P.E.A.R.

P



PEDAGOGY

Educators need to design curriculum to allow students and host organizations to make the most of the experience and students need to engage with the curriculum.

E



EXPERIENCE

Educators need to verify that the opportunity aligns with the educational goals of the course/program, host organizations need to provide opportunities for meaningful and substantial contributions, and WIL students need to fully engage with the host organization to make the experience valuable for them and the organization.

A



ASSESSMENT

Assessments need to be designed by the educator with input from the student and host organization.

R



REFLECTION

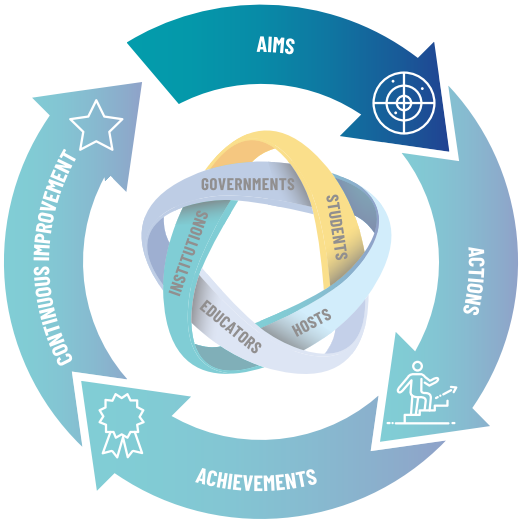
Prompts need to be provided by the educator to facilitate reflection on the experience for the student and the host organization ensuring maximum learning gains from the experience.

In addition to the five primary partners for WIL, there are some additional partners that fall into an "Advocates" group. The mandates for these groups include supporting one or more of the primary WIL partners. In the Canadian context, there are several active advocates in the WIL space. National Associations, like CEWIL Canada, act as advocacy groups for WIL educators, institutions, and hosts (Kay et al., 2023). The Business Higher Education Roundtable (BHER) is an example of an advocacy group acting on behalf of host organizations and institutions. The Canadian Alliance for Student Associations is an advocacy group for students. Universities Canada, Colleges and Institutions Canada (CICan), and Polytechnics Canada are advocacy groups for post-secondary institutions. The Canadian Chamber of Commerce and the Canadian Federation of Independent Business (CFIB) are advocacy groups for small and medium-sized businesses. The collection of industry associations participating in the federal government's Student Work Placement Program (SWPP) would be examples of advocacy groups for host organizations/employers.

SECTION 2

AIMS

WHAT ARE THE WIL GOALS OF EACH PARTNER?



This section introduces the five primary partners involved in WIL programs and articulates a collection of goals that, depending on the type of WIL, each may have related to their involvement and investment in WIL programs. Separate aims for the advocate partners are not listed, since they are working to support the aims of their relevant primary partner(s).

STUDENTS

Students participate in WIL programs for several reasons which may include:

- To determine their "fit" with a potential career or industry (Jackson & Cook, 2023; Patrick et al., 2008; Peters et al., 2014; Sattler & Peters, 2013).
- To add meaning to their academic program and career goals (McRae & Johnston, 2016; Patrick et al., 2008).
- To gain skills, attributes, and knowledge that are relevant to the workplace context (Bates, 2005; Jackson & Cook, 2023; McRae & Johnston, 2016; Peters et al., 2014; Sattler & Peters, 2013).
- To enhance their resumés (Patrick et al., 2008; Sattler & Peters, 2013).
- To apply classroom theory and skills to the workplace (Anderson et al., 2012; Bates, 2005; Jackson & Cook, 2023; Sattler & Peters, 2013).
- To develop professional networks (Gribble & McRae, 2017; Jackson & Cook, 2023; McRae & Gribble, 2016; Patrick et al., 2008; Sattler & Peters, 2013).
- For financial benefits to participating in WIL (Bates, 2005; Jackson & Cook, 2023).
- To contribute in productive ways within the host organization and as members of a responsible, ethical, civic society (McRae & Johnston, 2016).

HOST ORGANIZATIONS/ EMPLOYERS

WIL programs are advantageous to host organizations in the following ways:

- They allow for pre-screening of potential new hires (Bates, 2005; Fleming et al., 2023; Patrick et al., 2008; Sattler & Peters, 2012).
- They allow the opportunity for students to motivate employees (Bates, 2005).
- They help develop the workforce skills needed for their industry or profession (Ho, 2023; Patrick et al., 2008; Sattler & Peters, 2012).
- They provide a cost-effective method for new employee training and recruiting (Braunstein et al., 2011; Fleming et al., 2023; Sattler & Peters, 2012).
- Students can bring fresh and innovative ideas to the organization (Fleming et al., 2016, 2023).
- Students provide access to a short-term, flexible source of labour (Braunstein et al., 2011; Sattler & Peters, 2012).
- Supervision of a WIL student provides employees with the opportunity to receive professional development on staff supervision and support (Bates, 2005; Brewer et al., 2021; Fleming et al., 2023).
- WIL students can help in creating an organizational brand with the next generation of talent (Braunstein et al., 2011; Sattler & Peters, 2012).
- As academic institutions enroll more international students, their WIL programs provide host organizations with increased access to a global talent pool and increase the opportunity for greater diversity and inclusion in the workplace (Metzger, 2004; Rao et al., 2024), which has been linked to increased innovation (Mohammadi et al., 2017) and organizational performance (Khassawneh & Mohammad, 2025).
- WIL programs provide a mechanism by which host organizations can "give back" to the community (Duder et al., 2022; Fleming et al., 2023; Peters et al., 2014; Sattler & Peters, 2012).

EDUCATORS

Educators participate in WIL for a variety of reasons including:

- To enhance the overall learning experience for their students, enabling them to connect theory to practice and providing opportunities that will increase student engagement and motivation towards learning (Patrick et al., 2008).
- To stay current with issues or practices within an industry or profession (Bates, 2005; Crump & Johnsson, 2011; Peters et al., 2014).
- To strengthen their community engagement (Fleming et al., 2018; Patrick et al., 2008).

ACADEMIC INSTITUTIONS

For academic institutions, there are a variety of aims for offering WIL experiences and programs. Many of these goals correspond to the goals that students and educators have for WIL. For instance, an institution may want to improve its graduates' employability outcomes or enhance its students' academic experience by giving them opportunities to connect theory and practice (Aprile et al., 2023; Patrick et al., 2008). There are also a variety of additional reasons that academic institutions offer WIL, including:

- As a strategy for student engagement and retention (Anderson et al., 2012; Patrick et al., 2008).
- To develop an institutional brand and attract students (Bates, 2005).
- To develop or strengthen relationships with community and industry partners (Aprile et al., 2023; Fleming et al., 2018; Patrick et al., 2008; Peters, 2012).
- To respond to identified business and/or community needs and address global issues (Peters, 2012).
- To receive feedback regarding the quality of their programs and degrees (Bates, 2005).



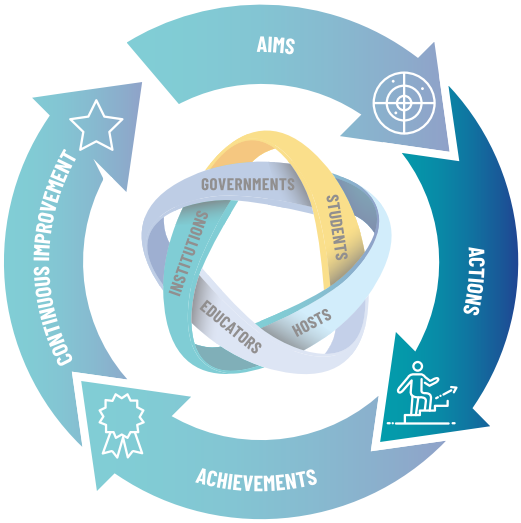
GOVERNMENTS

Governments are interested in WIL for a number of reasons. With a significant responsibility for post-secondary education, governments want to ensure that financial investments in education yield maximum returns. Government interest in WIL also relates to its oversight of the economy and labour markets. Governments want to support policies and practices that will contribute to a strong economy and ensure that the labour market has access to the talent it needs to be successful (Afolabi & Medu, 2023). Thus, an aim of governments for WIL is that academic institutions, in partnership with host organizations, prepare students to be future-ready with the skills they need to be productive and engaged citizens (Patrick et al., 2008). WIL programs provide a strategy for governments to prepare a highly skilled workforce that can drive the economy of the future (Government of Ontario, 2018), thus acting as a mechanism to address economic challenges and skills shortages (Patrick et al., 2008; Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities, 2018).

SECTION 3

ACTIONS

HOW IS SUCCESS ENABLED FOR EACH PARTNER?



Following the description of the potential aims of the partners with respect to WIL, this section describes the actions required by each group to ensure success. A significant piece of work was published in 2016 by Khampirat and McRae that described a quality standards framework for CWIE (Co-op and Work-Integrated Education). The framework describes the processes, procedures, outcomes, and assessment (PPOA) activities that should occur for three partner groups (student, employer, and institution) at three distinct times within the cycle of a WIL experience (before, during, and after). The process aspect of the PPOA (Khampirat & McRae, 2016) will provide the foundation for the description of partner actions for quality WIL.

STUDENTS

There are some actions that students need to take to ensure a quality WIL experience, and these actions happen during three main phases, before the WIL experience, during the WIL experience, and after the WIL experience.

BEFORE THE WIL EXPERIENCE

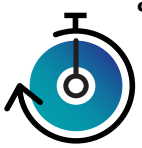
The first phase involves preparation in advance of the WIL experience (Winchester-Seeto & Rowe, 2023). Depending on the type of WIL, students may be searching for and/or applying to potential WIL experiences. They are responsible for engaging in the curriculum that has been prepared to ensure they are ready for the experience. This may involve job searching exercises,

understanding the expectations of the host organization, and setting learning outcomes or goals for the WIL experience (Martin et al., 2012). This preparation phase may also include workshops covering topics related to quality WIL including EDIA (Goldman et al., 2023), and student wellbeing (Hay & Fleming, 2025b; Knapp & Drewery, 2025; Konstantinou et al., 2023). After completing these workshops, students should be able to demonstrate intercultural competencies, understand workplace dynamics, and be able to apply principles of EDIA in the workplace (Arthur & Guy, 2020; Chatoor & Kaufman, 2023; Goldman et al., 2023). They should know their rights, be prepared for the stressors and challenges they are likely to face and be able to identify and access available support and resources (Boye, 2024; Goldman et al., 2023; Hay & Fleming, 2025b; Konstantinou et al., 2023). If the WIL experience is remote or hybrid, students may need targeted preparatory resources covering topics like cybersecurity, technology use, and how to be successful in remote WIL (Bell et al., 2022; Bowen, 2020; Chatoor, 2023; Kaider et al., 2021). Effective preparation by the student is vital to a successful, quality WIL experience.



DURING THE WIL EXPERIENCE

During the experience, the student needs to contribute to the host organization by completing the assigned responsibilities and engaging with others in the organization in an effective and positive manner. There is evidence that students who engage in proactive behaviours, asking questions and identifying ways to help, have more positive outcomes for the experience than those who meet the base expectations the hosts have for them (Drewery et al., 2017; Ngonda et al., 2022). The student also needs to meet curricular responsibilities as required by their academic program (Henderson & Trede, 2017).



AFTER THE WIL EXPERIENCE

At the end of a quality WIL experience, students have met the expectations of their host/employer and reflected on their learning and growth during the experience. Reflection helps them unpack what they have learned from the experience, promoting deeper learning and fostering personal and professional development (Stirling et al., 2024; Wingrove & Turner, 2015). During the WIL experience, students have developed specific skills that, through reflection, they are better able to articulate (Pretti & Fannon, 2018; Wingrove & Turner, 2015). They have also learned about the context they were in: elements of their role, the team that they worked on, the organization, and the sector/industry itself (BHER, 2016).

HOST ORGANIZATIONS/ EMPLOYERS

There are a number of actions that host organizations need to take to ensure a quality WIL experience. These actions also happen during three main phases: before the student arrives, while the student is in the organization, and after the student leaves.

BEFORE THE WIL EXPERIENCE

The preparation phase for host organizations includes identifying the roles and responsibilities that the student will have during their WIL experience and ensuring adequate supervision is available for the student when they arrive. The roles and responsibilities of the student may be communicated to the WIL educator and student through a job or role description and the host may be involved in screening and selecting a WIL student for the experience. Host organizations should ensure that WIL supervisors have formal training on how to mentor and support WIL students (Ambrosetti et al., 2014; Campbell et al., 2019; Drewery & Pretti, 2025; Fannon et al., 2024; Giebelhaus & Bowman, 2002; Keating, 2012; Malone et al., 2017; Martin et al., 2011; McRae, 2015; Orrell, 2011; Spector & Infante, 2020; Winchester-Seeto, 2019). This training should cover topics vital to a quality WIL experience including how to onboard, support, and evaluate co-op students (CEWIL, 2023), how to support student wellbeing (Grant-Smith et al., 2017; Soniassy et al., 2025; Tudor et al., 2025), and how to ensure an accessible and inclusive WIL experience (Ademuyiwa et al., 2023; Arthur & Guy, 2020; Boye, 2024; Chatoor & Kaufman, 2023; Gair et al., 2015; Goldman et al., 2023; Hay & Fleming, 2024; Lawlis et al., 2024; Mallozzi & Drewery, 2019; Thakur, 2021; Winchester-Seeto et al., 2015). Host organizations should work together with academic institutions in this training process, with institutions providing resources to assist host organizations in preparing their employees for their supervision roles (CEWIL, 2023). WIL supervisors play a key role in supporting student learning (Fleming et al., 2021) and in enabling a transformative learning experience (McRae, 2014), so it is important that we prepare them adequately to ensure a quality WIL experience. Before the student arrives, host organizations must also ensure that expectations are communicated clearly between the host, the educator, and the student (BHER, 2016; Brewer et al., 2021; Fleming & Haigh, 2017; Fleming et al., 2018; Henderson & Trede, 2017; Jeffries & Milne, 2014; Rowe et al., 2012). This is a key factor in the success of the WIL experience.

DURING THE WIL EXPERIENCE

During the experience, the WIL host needs to provide appropriate work and support for the student. Research shows that students are looking for opportunities to learn, to make a meaningful contribution to the host organization, and to find relevance in their work to their academic or future career interests (Drewery, Nevison, Pretti, Cormier, et al., 2016). Identifying responsibilities and/or projects for the student that are valuable and important to the organization but also allow the student to learn is the goal for quality WIL. Additionally, it is important that there are people available at the host organization that the student can learn from and reach out to for support during the experience, this may include the supervisor (Fleming, 2015; Gillett-Swan & Grant-Smith, 2018; McBeath et al., 2018; Nevison & Pretti, 2016; Pennaforte, 2016).

AFTER THE WIL EXPERIENCE

As the WIL experience is ending, it is important that the host provide feedback on the WIL experience. This involves both an assessment of student learning and performance, but also the WIL experience as a whole. The assessment of student learning and performance provides important feedback to students on areas of strength and areas for improvement from the perspective of their host (Peach et al., 2014). Students can use this feedback as part of their post-experience self-reflection activities. The feedback on the WIL experience overall enables the host to reflect on what worked well and not-so-well which will foster a culture of continuous improvement around their involvement with WIL (Fleming et al., 2018; Henderson & Trede, 2017).

EDUCATORS

The actions that educators need to take to ensure quality WIL can also be described in the phases of before, during, and after the WIL experience.

BEFORE THE WIL EXPERIENCE

For educators, before students go on the WIL experience, there is a great deal

of work that needs to be done. Educators need to develop and deliver the curriculum and resources needed to support students in the pre-experience phase (Winchester-Seeto et al., 2016). In doing so, educators should incorporate inclusive curriculum design and teaching practices into their WIL courses (Campbell et al., 2019; Goldman et al., 2023; Stirling et al., 2024; Valencia-Forrester et al., 2019; Winchester-Seeto et al., 2015). This may include applying the principles of universal design for learning (UDL) (Goldman et al., 2023; Rao et al., 2024; Stabenow & Anderson, 2024) or partnering with students as co-creators in the curriculum design process (Mackaway et al., 2024). In relevant contexts, Indigenous educational philosophies should also be considered, with Indigenous content, culture and knowledge incorporated into the WIL program (Arney, 2022; Cameron & Rexe, 2022; McRae, Ramji, et al., 2018; Ramji et al., 2021). Before the WIL experience, educators may also have a role to play in finding potential host organizations to take students. Whether or not they are involved in finding and designing the specifics for each host organization, they have a role to play in ensuring that the experience is appropriate for the broader learning outcomes.



DURING THE WIL EXPERIENCE

The day-to-day actions of the WIL educators during the WIL experience may be substantially less than the actions involved for the student and the host themselves during this phase. However, the educator plays a critical role in supporting both the host and the student in achieving a quality WIL experience (Winchester-Seeto et al., 2016). This may involve periodic check-ins initiated by the educator (in person or online) or it may be providing support to the student and/or host if a workplace issue arises. Additionally, the educator is responsible for designing and delivering any required curricular components that take place during the WIL experience (Winchester-Seeto et al., 2016).



AFTER THE WIL EXPERIENCE

Following the WIL experience, the educator supports students and hosts in reflecting on the WIL experience and what they can learn from it. This can be done through conversations and/or providing prompts or surveys that elicit the desired information. The solicitation of this information not only leads to positive outcomes for the students and hosts in considering the impact of the experience but also leads to positive outcomes for the WIL program. Through this information, the educators gain an understanding of the ways the program can be improved as well as how students are/aren't developing through their WIL experience and/or meeting the needs of host organizations which could lead to curricular reform within the academic institution (Cedercreutz & Cates, 2011).

ACADEMIC INSTITUTIONS

For institutions, the actions they contribute towards quality WIL are not specific to the same phases as for students, hosts, and educators. However, there are important actions that they must take in support of quality WIL. WIL programs are not easy or quick to set up and they need to continuously evolve, requiring an ongoing effort to maintain strong relationships with hosts and relevant curriculum for students (Sovilla & Varty, 2011). WIL programs need to stay attuned to changes in the employment landscape with programming being continuously updated to reflect the changing world of work (CEWIL, 2023; Pretti & McRae, 2021). This will ensure that students are prepared for the employment conditions they will encounter. With the rise in remote work, institutions must ensure that students, educators, and host organizations have the necessary support and resources to succeed in remote environments (Bell et al., 2021; Chatoor, 2023; Jeske, 2019; Maietta & Gardner, 2022). Remote work is different and presents unique challenges for WIL, especially around skills development (Chatoor, 2023), so specific training is required to ensure quality is maintained. WIL partners will also require ongoing support from institutions as advances in technology continue. For example, relevant resources should be provided to students, educators, and host organizations to help them reflect on appropriate and relevant uses of generative AI during WIL experiences (Barbieri & Nguyen, 2025; Dean et al., 2025; Nulton & Fenton, 2024).

Academic institutions should ensure that support is available to educators, host organizations/employers, and students throughout the WIL experience.

EDUCATORS & WIL PRACTITIONERS

For educators, institutions should provide access to training on key issues such as EDIA, including topics like anti-racism, cultural awareness, Indigenous cultural safety training, unconscious bias, reconciliation, and allyship (Boye, 2024; Chatoor & Kaufman, 2023; CEWIL, 2023; Goldman et al., 2023; McRae, Ramji, et al., 2018; Nielsen et al., 2022; Thakur, 2021; Winchester-Seeto et al., 2015). Institutions should also ensure that WIL staff have access to policies and

resources needed to implement inclusive principles and guidelines (Winchester-Seeto et al., 2015).

For WIL practitioners, institutions should ensure access to relevant professional development opportunities, which are often lacking (Hoskyn et al., 2018; Kay et al., 2023). Given the recent shift towards the professionalization of WIL practitioners (Peters & Pizarro Milian, 2024), and the specific set of skills that these individuals must possess (Zegwaard et al., 2019), there is a clear need for additional professional development opportunities to ensure quality WIL experiences (Campbell et al., 2019; Ferns et al., 2022; Kay et al., 2018; McRae, 2015; Orrell, 2011; Patrick et al., 2014; Peters & Shewan, 2024; Smith et al., 2022; WACE, 2024; Zegwaard et al., 2019). Institutions should consider offering mentorship programs, institutional communities of practice, and webinars, and they should encourage practitioners to join national WIL associations (CEWIL, 2023; Zegwaard & Pretti, 2023b). While institutions play an important role in ensuring WIL practitioners have access to professional development opportunities, another WIL advocate, national associations, share in this responsibility (Kay et al., 2023; Zegwaard et al., 2019). It is important for national WIL associations around the world to provide networking and professional development opportunities to ensure WIL practitioners remain informed about the latest research on important topics in the evolving WIL landscape (Kay et al., 2023). WIL practitioners need the opportunity to learn about the theories and models of WIL that underlie best practices (Hoskyn et al., 2016; McRae, 2014). Such opportunities are provided in the global WIL modules offered by WACE (Ferns et al., 2022; Hoskyn et al., 2016; Kay et al., 2018; Zegwaard et al., 2016). Institutions should encourage WIL practitioners to engage in these kinds of professional development opportunities to ensure the field remains adaptable, continuing to respond to the changing world of work (Kay et al., 2023).



HOST ORGANIZATIONS

For host organizations/employers, institutions should provide support and training materials to ensure an inclusive WIL experience for students (Ademuyiwa et al., 2023; Arthur & Guy, 2020; Boye, 2024; Chatoor & Kaufman, 2023; CEWIL, 2023; Goldman et al., 2023; Hay & Fleming, 2024; Lawlis et al., 2024; Mallozzi

& Drewery, 2019; McRae, Ramji, et al., 2018; Nielsen et al., 2022; Ramji et al., 2021; Thakur, 2021; Winchester-Seeto et al., 2015). Institutions should work together with host organizations to build inclusive WIL capacity, offering advice, resources, and support to help hosts better support WIL students (Thakur, 2021; Winchester-Seeto et al., 2015). This may involve training sessions, or the creation of tip sheets for host organizations covering topics like EDIA hiring practices, microaggressions, pronouns, etc. (Goldman et al., 2023).



STUDENTS

For students, WIL programs should take time to critically reflect on the program level barriers that exist for students from equity deserving groups (CEWIL, 2023) and specific support and resources should be made available to students to address those barriers (CEWIL, 2023; Orrell, 2011; Thakur, 2021; Winchester-Seeto et al., 2015). For example, many students face financial barriers to participating in WIL and the academic institution has a responsibility to address those barriers (Goldman et al., 2023; Itano-Boase et al., 2021; Stirling et al., 2021; Valencia-Forrester et al., 2019). Institutions should consider keeping WIL participation costs low and having bursary or scholarship opportunities for WIL students (Goldman et al., 2023; Stirling et al., 2021). Institutions should also ensure clear communication and transparent guidelines on the process of requesting accommodations (CEWIL, 2023; Goldman et al., 2023; Stabenow & Anderson, 2024) and addressing and reporting workplace issues (Arthur & Guy, 2020; Stirling et al., 2021; Winchester-Seeto et al., 2015).

The wellbeing of WIL students is another important consideration for institutions. WIL students report experiencing high levels of stress while participating in WIL programs (Grant-Smith et al., 2017; Knapp & Drewery, 2025; Tudor et al., 2025; Zegwaard & Adams-Hutcheson, 2025) and it has been shown that a supportive environment, including support from the academic program and workplace are important to ensuring a transformative learning experience (McRae, 2014, 2015). Given this, institutions should provide support and resources to help students safeguard their wellbeing during their WIL experiences (Konstantinou et al., 2023; Smith, 2012; Winchester-Seeto, 2019;). The provision of wellbeing supports is an important component of quality WIL programming.

Institutions also contribute to quality WIL through recognition of WIL as a curricular component of students' education (Sovilla & Varty, 2011). Institutions can provide mechanisms to open doors to existing relationships with industry or community that can create additional WIL opportunities for students. Lastly, at the institutional level, embracing the use of data collected through WIL programs about student learning as well as host organizations' reports of student performance enables curricular reform that strengthens the quality of WIL programs across the institution (Sovilla & Varty, 2011). The institution should ensure systematic, and regular input from WIL partners as this continuous feedback cycle is needed to ensure the WIL ecosystem remains adaptive to the changing employment landscape (Armitage & McRae, 2024).



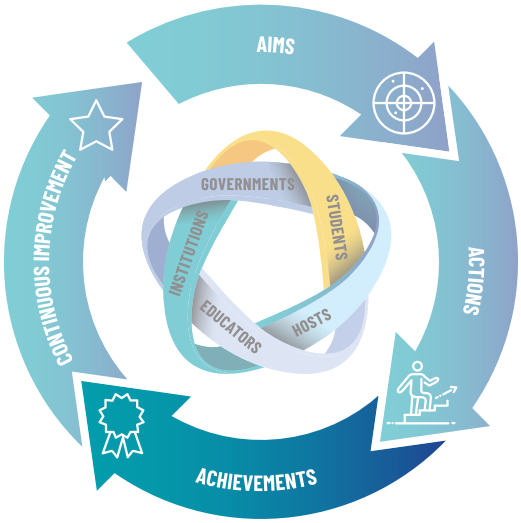
GOVERNMENTS

As was the case with institutions, the actions needed by governments to support quality WIL are not related to specific phases but are critical for the success of the overall system. WIL courses and programs are resource-intensive, so governments need to recognize that and provide sustainable, predictable and inclusive funding for institutions to create and support WIL programs (Peters & Shewan, 2024; Sovilla & Varty, 2011). Another action that governments can take is to provide resources in the form of wage subsidies or tax credits to employers to assist with the overhead costs of hiring WIL students. Further, governments can assist in creating the conditions for quality WIL by developing and revising laws and policies that support students, host organizations, and institutions involved in WIL programs (Turcotte et al., 2016). This should include policies that reflect the principles of EDIA, such as ensuring academic institutions and WIL hosts are offering appropriate accommodations to students engaged in WIL experiences (Gatto et al., 2021). Governments should work closely with academic institutions to provide thought leadership and standards that emphasize the importance of inclusion and access for quality WIL (Chatoor & Kaufman, 2023).

SECTION 4

ACHIEVEMENTS

WHAT ARE THE OUTCOMES AND MEASURES THAT CAPTURE ACHIEVEMENTS FOR EACH PARTNER?



This section of the quality framework describes the potential achievements of the WIL experience or program from each partner's perspective. To be successful with WIL, the achievements of the various partners should meet or exceed the aims that each had for their participation. For each partner, this section includes the set of possible WIL-related outcomes and the types of measures that can be used to assess the achievement of those outcomes.

STUDENTS

STUDENT OUTCOMES

The outcomes for students who participate in WIL experiences can be grouped under three sets of outcomes. The categories for student outcomes are: outcomes that relate to academics, professional outcomes, and personal outcomes for WIL students (Cooper et al., 2010). **Academic outcomes** include students' ability to integrate theory with practice (Fleming & Haigh, 2017; Jackson & Cook, 2023; Sattler & Peters, 2013; Wingrove & Turner, 2015), improved academic performance (Jackson & Cook, 2023), improved student experience (Jackson & Cook, 2023), clarity about academic goals (Purdie et al., 2011; Reddan, 2015) and academic motivation (Drysdale & McBeath, 2018). **Professional outcomes** for students include developing key workplace competencies (Fleming & Haigh, 2017; Jackson, 2013, 2015; Jackson & Cook, 2023; Jackson & Wilton, 2016; Peters et al., 2014; Sattler

& Peters, 2013), professional identity development (Jackson & Cook, 2023); understanding workplace culture (Fleming & Haigh, 2017), clarity about career goals (Drewery, Nevison, & Pretti, 2016; Fleming & Haigh, 2017; Jackson & Wilton, 2016; Sattler & Peters, 2013; Wingrove & Turner, 2015), building a professional network (Fleming & Haigh, 2017; Gribble & McRae, 2017; Jackson & Cook, 2023; Jackson & Wilton, 2016; McRae & Gribble, 2016; Sattler & Peters, 2013), increasing success with post- graduation employment (Blicblau et al., 2016; Jackson & Cook, 2023; Sattler & Peters, 2013), and the ability to tackle ongoing changes in the world of work (Stevens et al., 2020). Lastly, the set of **personal outcomes** that students have the opportunity to develop are the ability to determine strengths and weaknesses (Reddan, 2015), increased maturity (Sattler & Peters, 2013), increased confidence (Bates, 2005; McRae, 2014; Purdie et al., 2013; Sattler & Peters, 2013), increased earnings (Peters et al., 2014), productive and responsible citizenship skills (Sattler & Peters, 2013), lifelong learning skills (Drysdale & McBeath, 2018; Fleming & Haigh, 2017; Peters et al., 2014) and enhanced wellbeing, with an increased sense of belonging to a profession and improved understanding of work-life balance (Jackson & Cook, 2023).

STUDENT MEASURES

Once key outcomes that align with the Aims have been identified, then appropriate measures need to be selected. There are many ways that outcomes can be measured, and it will be important to select measures that capture the appropriate data needed to evaluate the outcomes. There is also an element of practicality in measuring outcomes, what and how much is reasonable to collect (Zegwaard et al., 2003). These factors may influence decisions made in selecting measures for the identified WIL outcomes.

For the potential list of student outcomes above, there are a few general ways that these can be measured. One way many of these outcomes can be measured is through items or scales on a self-report survey. For example, a survey might ask students questions to examine the extent to which the WIL experience increased their motivation toward their academic program, helped them build a professional network, or increased their clarity on what career they wish to pursue. Another set of student outcomes, e.g. the development of workplace competencies, might be measured through assessments completed by the host organization or the educator (Henderson & Trede, 2017). Student work or reflections is another source of outcome measurement as a rubric could be used to evaluate students' achievement of specific outcomes. For example, a rubric could be applied to students' work term reflections which assesses students' lifelong learning skills (Drewery

& Pretti, 2023; Drewery et al., 2018). Lastly, there may be specific key performance indicators (KPIs) that can be used to assess the achievement of specific outcomes, for example, the post-graduate employment rate tracked by Statistics Canada, or on provincial and national graduate surveys (Canadian University Survey Consortium, 2018; Finnie & Miyairi, 2017).



HOST ORGANIZATIONS/ EMPLOYERS



HOST ORGANIZATION/EMPLOYER OUTCOMES

For host organizations or employers, there are many potential outcomes for their involvement in WIL programs. Some report that they achieve productivity gains through their access to short-term labour (Braunstein et al., 2011; Sattler & Peters, 2012). They report that WIL students infuse their organization with innovation, suggesting new and better ways to do things (Braunstein et al., 2011; Crump & Johnsson, 2011; Fleming et al., 2023; Sattler & Peters, 2012). Participating in WIL programs and accessing a wide range of talent from post-secondary institutions can help organizations increase the diversity of their workforce (Metzger, 2004). Host organizations report that participating in WIL programs enables them to create awareness about their organization to future recruits (Braunstein et al., 2011; Fleming et al., 2023; Sattler & Peters, 2012) and also that students who have participated in WIL programs with their organization and are hired after graduation have higher levels of performance and are promoted faster than new recruits who were not WIL students (Braunstein et al., 2011). Host organizations may also develop additional connections to post-secondary institutions through their engagement with WIL programs, leading to research partnerships and access to specialized equipment and research knowledge (Fleming et al., 2023).



HOST ORGANIZATION/EMPLOYER MEASURES

There are several measures that can be used to evaluate the outcomes that host organizations have achieved through their participation in WIL. Surveys and/or assessments can be designed for and administered with both host organizations and students to capture the students' contribution during

the WIL experience. These questions can include both quantitative and qualitative measures to understand the productivity and innovative impact of the student. With respect to helping organizations increase the diversity of their workforce, the number of employees, including students, from diversity groups can be calculated. To measure the outcome of increasing awareness of future recruits for their organization, a few different approaches could be taken. In the case of WIL programs where students apply for roles, they could monitor the number of applications they receive. They could do the same with post-graduation roles to see if there is an increase in applicants from the post-secondary institution where they are partnering to offer WIL experiences. Another measure of outcomes for hosts is the conversion rate that they have with WIL students.

Data can be tracked to see how many students who undertake a WIL opportunity with an organization return to that organization for employment after graduation. Additionally, tracking WIL participation through the host organization's HR systems enables them to measure and monitor the success of WIL grads as compared to non-WIL grads they hire post-graduation. Within post-secondary institutions, systems that track all community and industry engagement can demonstrate how WIL experiences may be connected to higher rates of other engagement with the institution.



EDUCATORS



EDUCATOR OUTCOMES

Many of the WIL outcomes for educators are described in the sections on student and host organization outcomes. That is, for educators, some of the most significant outcomes for WIL are that students and host organizations are achieving what they had hoped to achieve through participation in WIL. That said, there are also some outcomes specific to the WIL educator. These outcomes include increased student demand for the course or program (Crump & Johnsson, 2011), increased student retention (Jaeger et al., 2008), sustained and increased interest from host organizations (Sattler & Peters, 2012), increased student motivation in the course or program (Drysdale et al., 2016), and curricular renewal (Crump & Johnsson, 2011).

EDUCATOR MEASURES

A number of the outcomes specific to WIL educators can be measured through KPIs. Institutional data could include the number of enrolments for a course or program, the demand for those courses or programs, and the retention rates for students in WIL courses or programs. These rates might be examined in contrast with other comparable courses or programs. One note of caution regarding the retention rate for students in WIL programs: there is evidence to suggest that early exposure to workplace experience can help students realize that they are not in the right program. Switching to another program before too much time and money have been invested should be seen as a successful outcome for that educator and student, not a failure, as might be seen if examined through the attrition rate from the program. One way to address this would be to complement the retention KPI with data collected from students who leave WIL programs which includes their reasons for leaving. Another KPI useful for measuring the outcomes for educators is the retention and increased interest from host organizations to take WIL students.

In addition to KPIs, there are other measures for WIL outcomes for educators. Student motivation for the course could be measured in multiple ways. It could be measured through self-reports of students or educators' observations of students' motivation. It could also potentially be measured through students' grades as a proxy. The outcome of curricular renewal could be measured by questions administered to students, host organizations, or educators. For students, the questions might be directed to the relevance of what they are learning in their academic course or how they could connect what they experienced in the workplace with what they are learning in the classroom. For host organizations, the questions might center around how prepared the student was and whether they could apply their academic skills in the workplace settings. For the educator, the focus of the questions might be on how the course has changed over time and how they draw on students' WIL experiences in the classroom.

ACADEMIC INSTITUTIONS

ACADEMIC INSTITUTION OUTCOMES

For institutions, there are some possible outcomes for offering WIL courses and programs. The outcomes related to students include: an increased retention rate (note the comment above about students switching programs), increased student engagement (Kuh, 2009), increased graduation rate, increased graduate employability (Jackson & Dean, 2023), and increased alumni satisfaction. The outcomes that relate to involvement with host organizations include increased community and industry engagement (Aprile et al., 2023) and an increased number of research partnerships. Overall, depending on the level of adoption and promotion, WIL programs can contribute to an institutional brand and demonstrate the institution's commitment to breaking down the ivory tower through its direct connections to the needs of the community/society.

ACADEMIC INSTITUTION MEASURES

Based on the list of potential institutional outcomes, many can be measured through sector-wide surveys, and KPIs collected regularly as institutional data. Sector-wide surveys such as the National Survey of Student Engagement, used widely across the United States and Canada, provide measures of student engagement. In the Canadian context, there are graduate and post-graduate surveys such as the graduate survey run by the Canadian University Survey Consortium every three years, and the National Graduates Survey run by Statistics Canada which surveys graduates 3 years after graduation. In Ontario, the Ontario University Graduate Survey (OUGS) collects employment data and alumni satisfaction data.

Sample questions include, "How closely was your work related to the skills you developed at university?", and "Would you recommend your program of study to someone else?" Existing institutional data would include KPIs such as retention rates and graduation rates. At an institutional level, there may be measures of community or industry engagements such as the number of students recruited, partnership agreements, and memoranda of understanding (MOUs) with communities or industries. Through

institutional research offices, there are likely metrics around research partnerships such as research projects, grants funded, and research collaborations. Additionally, there are global rankings, such as the QS Graduate Employability ranking that look at employers' views of reputation, alumni outcomes, and employer partnerships (QS World University Rankings, 2018). Many academic institutions have made a commitment to EDIA principles (Universities Canada, 2017) and the impact of these EDIA initiatives on WIL programs should also be measured (Goldman et al., 2023; Valencia-Forrester et al., 2019; Winchester-Seeto et al., 2015). This could involve collecting quantitative and qualitative data to explore who is accessing your WIL programs and who is not. Surveys administered at the end of the WIL experience to all WIL partners could assess the impacts and usefulness of initiatives like EDIA training. An EDIA committee could also be established to evaluate this element of the WIL program (Goldman et al., 2023).



GOVERNMENTS



GOVERNMENT OUTCOMES

The outcomes for governments that support quality WIL programs within higher education institutions are numerous. Many of the outcomes for governments relate to developing productive, future-ready graduates and citizens who can contribute to the labour market and economy (Peters et al., 2014). Additionally, research has shown that there are better student debt outcomes, due to students either not incurring as much debt through their post-secondary education, or to them being in a position to pay back their debt because of a smoother transition to the labour market (Downey et al., 2002; Haddara & Skanes, 2007). Graduates as successful and productive citizens lead to a better perception of post-secondary education (PSE) and the public investment of money in the educational system (OECD, 2017a). With the continual connection to current industry and community needs through quality WIL experiences, there should be increased confidence within the community and industry that PSE is working to meet labour market needs. Given the increasing population of international students within PSE, quality WIL experiences will help organizations and businesses

access global talent to retain after graduation to meet increasing labour market needs. As noted by the Advisory Council on Economic Growth in 2016, "international students meet the general preconditions for proven successful economic integration – youth, language proficiency, and education. After years of studying in Canada, they tend to have strong language skills and be acclimatized to Canadian society" (Advisory Council on Economic Growth, 2016, p.8).

In addition, according to the Canadian Bureau of International Education (CBIE), 57% of international students plan to apply for permanent residence in Canada (CBIE, 2024). Participating in WIL programs can ease the path to immigration (McRae & Gribble, 2016). WIL programs may also help increase diversity and inclusion within the labour market. Lastly, in some cases, there seems to be a connection between WIL programs and entrepreneurship (Pretti et al., 2020). More research needs to be done on this connection, but it is hypothesized that giving students early access to work experience and/or exposure to multiple workplace contexts over the course of their academic program stimulates innovative thinking that benefits their future workplaces and/or gives them ideas to create their own companies.

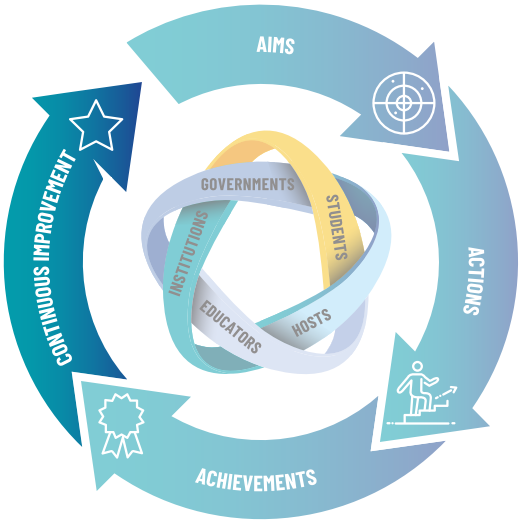
GOVERNMENT MEASURES

Some of the WIL outcomes for governments are quite easy to measure and others are much more difficult. Metrics that examine post-graduation labour market participation include existing surveys and can be linked to tax records (Finnie & Miyairi, 2017). There is data to show the debt load and repayment of student loans (Downey et al., 2002; Haddara & Skanes, 2007; Peters et al., 2014). There are also measures that can be examined to monitor trends to evaluate employers' satisfaction with the preparedness of students (Jiang et al., 2015). Another interesting data point might be to examine how many VISA students who come to Canada participate in WIL programs and stay in Canada following graduation (CBIE, 2024). More research is needed to identify potential measures for the impact of WIL programs on diversity and inclusion within organizations. Through tracking alumni, post-secondary institutions could better understand the entrepreneurial paths that graduates take (Andrade et al., 2018).

SECTION 5

★ CONTINUOUS IMPROVEMENT

WHAT IS THE PROCESS FOR CONTINUOUS IMPROVEMENT FOR WIL?



The fifth and final section of the WIL Quality Framework describes the continuous improvement process for WIL courses and programs.

The ongoing evaluation of the WIL program is important for ensuring a quality experience (Stirling et al., 2024) and a discussion of this process should be included in any WIL quality framework. The continuous improvement process for WIL involves articulating Aims, describing how Actions are accomplished, and assessing Achievements for the five primary partners.

ARTICULATING AIMS

The first step of a continuous improvement process is being sure to articulate the aims of the primary partners for participating in WIL. In Section 2, a set of potential aims, as described in the literature, was presented and may serve as a useful starting point to engage with partners to identify their goals for the WIL course/program. To be able to deliver a quality program, it is critical to understand and articulate the aims of each partner.



ACCOMPLISHING ACTIONS

The next step for a continuous improvement process is to examine the actions of each partner regarding the WIL course/program. Within this step, consider how the actions of each partner align with best practices as identified in the literature and described in Section 3 of the framework. In addition, it is important to examine how those actions are perceived by the partners. For example, do host organizations report that students seem prepared? Do students report that they are being given responsibilities that are meaningful and give them opportunities to learn? Are EDIA initiatives effective? As part of a continuous improvement process, it is important to document what is happening, how effective those actions are (as perceived by the relevant partner(s)), and where the gaps might be. This will facilitate ongoing improvements to the WIL program.



ASSESSING ACHIEVEMENTS

The final step for a continuous improvement process is assessing the achievements of the WIL program for each of the primary partners. For the assessment of achievements, it is important to align outcomes measurement with the aims of the various partner groups. Once key outcomes for each of the partner groups are selected, then associated measures should be identified and plans should be put in place to collect that data. For example, if one of the main aims of students for participating in a WIL program is successful employment after graduation, then to assess the achievements of the program, one should incorporate measures of post-graduation employment success. This might be added to an existing graduate or alumni survey or may be identified as an item already collected

through an existing survey. Identifying partners' key outcomes and determining the most appropriate measures will enable the assessment of achievements for WIL programs.

Following the assessment of achievements, the strengths of a WIL course/program, and the areas for improvement will emerge. This exercise will provide a road map for a continuous improvement process which will help identify specific actions to be added or adjusted for each partner group.

Embedding a continuous feedback cycle ensures that quality improvement is built into the WIL program in an ongoing and sustainable way.

Armitage & McRae, 2024

CONCLUSION

WIL programs continue to increase and expand in higher education, and the discussion of quality and need for effective WIL quality frameworks remains critical (Ferns & Arsenault, 2023; Zegwaard & Pretti, 2023a). There are many partners who are supporting the expansion of WIL because they believe in the positive outcomes that can be achieved. Each of those partners have a finite set of resources they can direct towards WIL, and they need to be intentional in how they allocate those resources.

These outcomes are not a guarantee, and for WIL to continue to be seen as an effective pedagogy that connects higher education with industry, public and community organizations, quality must be kept front and center.

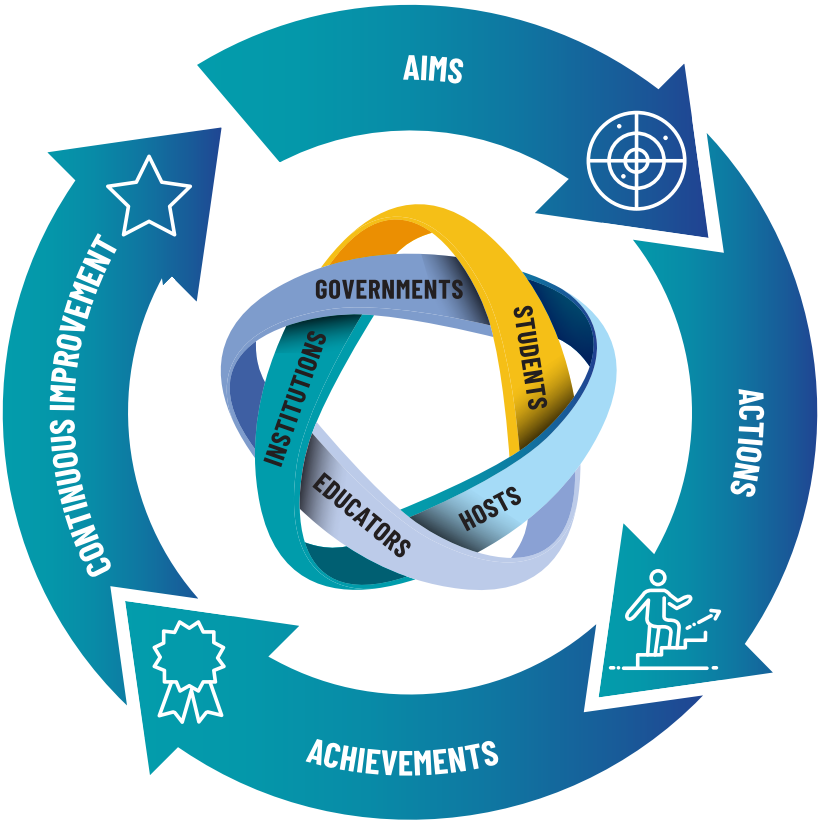
In this updated framework, we have added recommendations covering five emerging topics currently influencing the WIL landscape. This includes recommended actions that partners can take to ensure that:

- WIL programs are accessible and equitable; that they
- Adapt to changes in the employment landscape to appropriately prepare students for the future of work; and that
- Appropriate supports and resources are available to WIL practitioners, students, and supervisors to ensure a quality WIL experience.

It is important for the reader to note the interconnection of these topics across the five WIL partners. No single partner is responsible for addressing any one of these topics, it is a joint effort. A focus on supporting student wellbeing, for example, is likely to lead to enhanced WIL outcomes (Gillett-Swan & Grant-Smith, 2018), so it is important that all partners collaborate to ensure students maintain their wellbeing during the WIL experience (Hay & Fleming, 2025a; Taylor et al., 2023). Similarly, enhancing the quality of WIL experiences by focusing on EDIA is not the sole responsibility of any one partner. All partners need to embrace this philosophy and work collaboratively to achieve a mutually beneficial, quality WIL experience.

When examining quality, it is helpful to broaden one's view and consider the entire WIL ecosystem. At the heart of that ecosystem lies the concept of quality itself, and the strength of the ecosystem will either enhance or limit the quality of the WIL

experience (McRae & Woodside, 2023). Through the framework presented in this paper, it is proposed that to achieve a quality WIL program, you must consider the interconnected nature of all five key partners involved: students, host organizations/ employers, educators, academic institutions, and government.



Quality programs are achieved by articulating the aims, accomplishing the actions, and assessing the achievements of each of these partners and using that information to set a continuous improvement process in motion.

The framework is designed to support those involved in WIL programming by identifying quality gaps and providing a set of potential outcomes along with corresponding measures to evaluate WIL programs and ensure their continuous improvement.

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