A Practical Guide for Work-integrated Learning

2ND EDITION

Effective and Inclusive Practices to Enhance the Educational Quality of Structured Work Experiences Offered through Colleges and Universities

Higher Education Quality Council of Ontario

An agency of the Government of Ontario

Lead Authors

Ashley Stirling
Gretchen Kerr
Jenessa Banwell
Ellen MacPherson
Amanda Heron

Advisory Committee Members

Melissa Berger
Tracey Bowen
Maria Cantalini-Williams
Lisa Chambers
Ruth Childs
Rick Ezekiel
Lori Goff
Robyne Hanley-Dafoe
Pamela Healey
William R. Holmes
Duncan MacDuff
John Marris
Jane McDonald
Eileen O'Connor
Julie Peters
Mary Preece
Judene Pretti
Georgia Quartaro
Rod Skinkle
Jennifer Storer-Folt
Lisa Whalen
Richard Wiggers

2nd Edition Editors

Nia Spooner
Lena Balata

Design Credits

Hambly & Woolley Inc.

A Practical Guide for Work-integrated Learning

Effective and Inclusive Practices to Enhance the Educational Quality of Structured Work Experiences Offered through Colleges and Universities

2ND EDITION

Higher Education Quality Council of Ontario
An agency of the Government of Ontario

ewc

Dear Readers,

When it was first published in 2016, *A Practical Guide for Work-integrated Learning* (WIL) provided a framework for WIL program development and served as an important resource for the sector. Since then, higher education has prioritized its focus on equity, diversity and inclusion (EDI). Postsecondary education institutions have also given new consideration to program redevelopment and building more inclusive institutional policies and practices. To ensure that learning experiences remain relevant and accessible for all students, this new edition provides a second look at WIL with special attention to EDI.

In addition to the continued use of Kolb's (1984) theory as a guiding framework for experiential learning, it is also important to incorporate theories that contextualize and enhance quality WIL experiences for all students. Quality WIL must include students from historically, persistently or systemically marginalized groups, "[honouring] the diversity of all members" (ACE-WIL, n.d.). Integrating principles of EDI into the foundational elements of Kolb's (1984) theory reflects a commitment to equitable and inclusive approaches in WIL programming and facilitates student success. This updated guide serves as a reflective tool for employers, institutions and WIL practitioners, and as a resource for the practical application of theoretical and conceptual frameworks that support equitable and inclusive programming and promote quality outcomes for all students. We acknowledge that decolonization is also critical in enhancing our work, but we have not directly addressed it in this version of the guide.

This guide features three prominent themes that underscore important aspects of quality WIL programming: student-centred supports, sustainable WIL partnerships and program evaluation and development. These themes are incorporated throughout the guide to highlight current and emerging practices in quality WIL programs that intentionally focus on equitable access for all students. Furthermore, we've incorporated program spotlights, which feature WIL programs or practices that demonstrate these themes.

This guide does not offer a simple one-size-fits-all approach to creating the ideal WIL program. Building on the first edition, we offer advice on improving the quality of WIL for all learners; strengthening relationships between employers, students and institutions; and moving towards meaningful recognition and integration of EDI into WIL programming.

Sincerely,

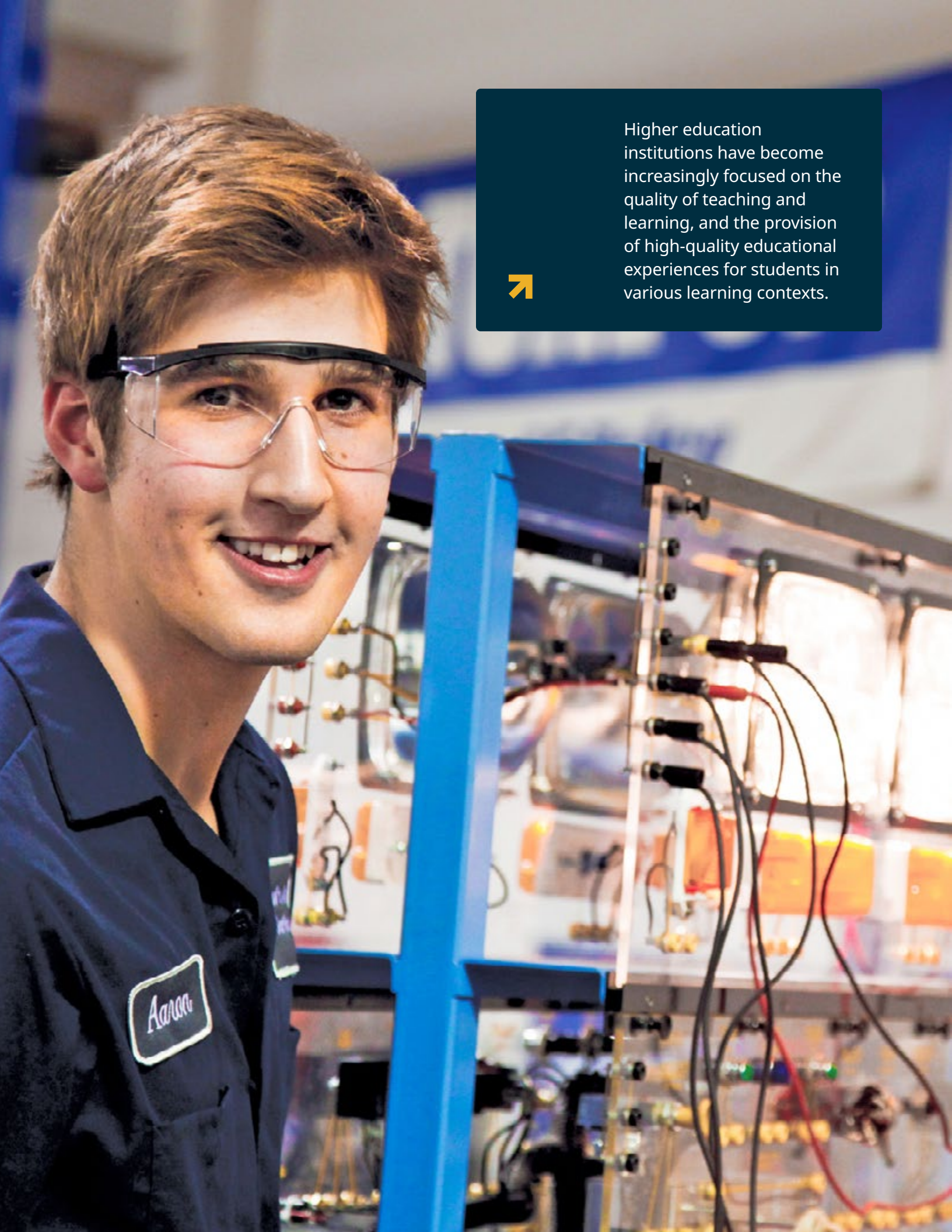
Nia Spooner

Lena Balata

Table of Contents

CHAPTER 3

CHAPTER 4



Higher education institutions have become increasingly focused on the quality of teaching and learning, and the provision of high-quality educational experiences for students in various learning contexts.

An Introduction to This Guide

This guide is intended to serve as a resource to enhance student learning and development in higher education through an inclusive and structured work experience.

Work-integrated learning is a pedagogical practice whereby students come to learn from the integration of experiences in educational and workplace settings (Billett, 2009).

Work-integrated learning has emerged as a key pedagogical strategy to enhance student learning and development (Kennedy et al., 2015).

Integrating curricular learning with workplace experience provides students with an opportunity to combine theory and practice in a real-world work environment, deepening students' knowledge and understanding, and enhancing work-related capabilities (Cooper et al., 2010; Tunny et al., 2022).

Work-integrated learning has become increasingly popular in higher education (Chatoor & Balata, 2023; Smigiel et al., 2015; Tunny et al., 2022).

About half of university students and 65–70% of college students in Canada participate in work-integrated learning during their postsecondary studies (Business+Higher Education Roundtable, 2020).

WIL Typology

The term 'work-integrated learning' (WIL) is often used interchangeably with work-based learning, practice-based learning, work-related learning, vocational learning, experiential learning, co-operative education, clinical education, internship, practicum and field education, to name a few (Sattler, 2011). WIL is often included under the broader 'experiential learning' umbrella. In an attempt to provide clarity around WIL terminology, several models and typologies of WIL have been proposed (Calway, 2006; Cooper et al., 2010; Furco, 1996; Guile & Griffiths, 2001; Keating, 2006; Rowe et al., 2012; Schuetze & Sweet, 2003). Specifically describing the provision of WIL in Ontario's postsecondary sector, Sattler (2011) outlines a typology to explain the different types of WIL experiences in colleges and universities, including: ***systematic training***, in which the workplace is "the central piece of the learning (e.g., apprenticeships)"; ***structured work experience***, in which students are "familiarized with the world of work within a postsecondary education program (e.g., field experience, professional practice, co-op, internships)"; and ***institutional partnerships***, which refer to "postsecondary education activities [designed] to achieve industry or community goals (e.g., service learning)" (p. 29).

Work-integrated Learning (Sattler, 2011, p. 29)

Systematic Training

Workplace as the central piece of learning (e.g., apprenticeships)

Structured Work Experience

Familiarization with the world of work within a postsecondary education program (e.g., field experience, professional practice, co-op, internships)

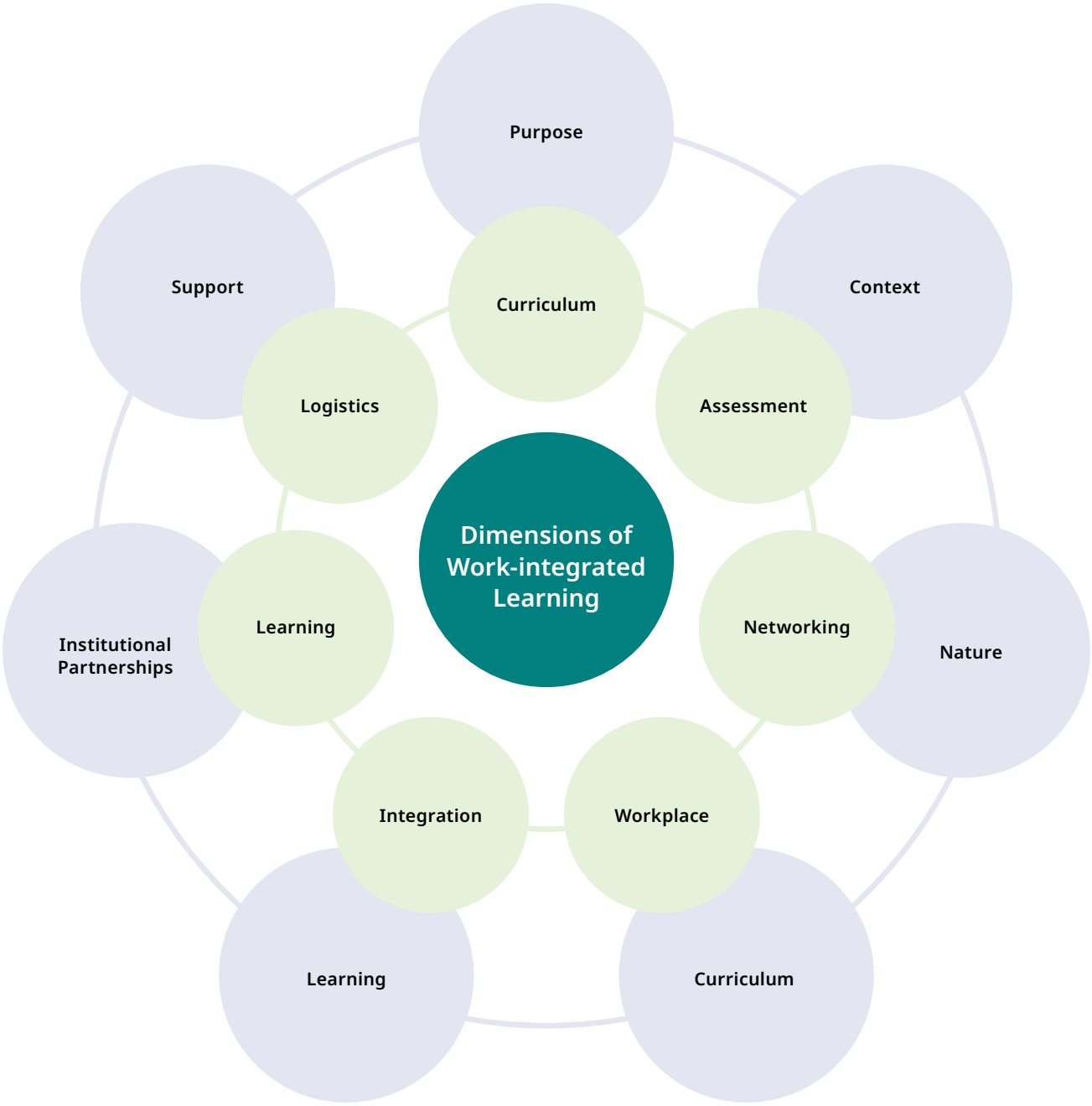
Institutional Partnerships

Postsecondary education activities to achieve industry or community goals (e.g., service learning)

Work-integrated learning opportunities foster personal and professional growth and enrich students' higher education experience when they are designed with equitable and inclusive practices.

Key Dimensions of WIL

In addition to models and typologies, key dimensions of WIL programming have been suggested. Cooper et al. (2010) identify seven key dimensions, including: purpose, context, the nature of the integration, curriculum, learning, institutional partnerships and the support provided to the student and the workplace. Building on this list, Cantalini-Williams (2015) proposed her "CANWILL" framework for developing effective WIL practicums (curriculum, assessment, networking, workplace, integration, learning and logistics), adding assessment and logistics as dimensions to the delivery of WIL experiences.



The Focus of This Guide

This guide is intended to serve as a resource for faculty, staff, academic leaders and educational developers engaged in work-integrated learning program development, facilitation and/or evaluation. The focus of this guide is on enhancing the educational quality of WIL programs. Several aspects of Cooper et al.'s (2010) and Cantalini-Williams' (2015) dimensions of WIL, such as purpose, context and institutional partnerships, will be referenced throughout the guide, with student learning as the main dimension of focus. Using Kolb's experiential learning cycle, we suggest effective practices to address each of the learning modes of experience, reflection, theorization and experimentation within a higher education WIL program, in order to optimize student learning and development.

While the information included in this guide may apply to several types of WIL, including systematic training (e.g., apprenticeship) and institutional partnerships (e.g., service learning), this guide was developed with a focus on the structured WIL experience, such as internships, placements, co-ops, field experiences, professional practice and clinical practicums. Looking at these forms of structured work experience as a whole, their intention is to integrate theory and practice and provide postsecondary students with a valuable learning experience in a real-world work environment (Sattler, 2011). Accordingly, this guide was written with the intention of providing effective practices to enhance the educational quality of the variety of structured work experiences that are offered in postsecondary programs.

It is important to note that achieving quality WIL for all students presents challenges. Well-documented barriers exist for historically, persistently or systemically marginalized (HPSM) groups. For instance, students with disabilities do not participate in WIL at the same rate as their counterparts due to accommodation challenges, which may be the same as or different from classroom accommodations, and lack of or insufficient employment-based equity, diversity and inclusion (EDI) practices (Gatto et al., 2020, 2021; Harvey et al., 2017; Tunny et al., 2022). Students have reported feeling reluctant or fearful to disclose information about their disability to their WIL advisor, as well as having negative perceptions about being supported and accommodated in their WIL placement (Boye, 2022; Gatto et al., 2020; Tunny et al., 2022). And when accounting for the intersectional barriers based on race, gender and disability, the chances of accessing quality WIL for these students is much lower (Boye, 2022). In addition, from the scant literature on the experiences of LGBTQIA2+ students in WIL, many have reported instances of discrimination, harassment and abuse in their WIL placements, particularly during the recruitment stage (Tunny et al., 2022; Mallozzi & Drewery, 2019). One study on LGBTQIA2+ student experiences at a Canadian university reported students feeling self-conscious about their identity when seeking experiential learning opportunities (Mallozzi & Drewery, 2019). Lastly, higher education institutions have a history of excluding and tokenizing Indigenous people (Cameron & Rexe, 2022; Nielsen et al., 2022; Thakur, 2021), and we can see the enduring impacts in WIL programming. These include Indigenous students being paid less than non-Indigenous students throughout their WIL experiences (Arney, 2022), and inequitable access to WIL opportunities due to living in remote and rural areas (Cameron & Rexe, 2022).

These findings underscore the significance of documenting the experiences of a wider range of students and highlight the critical underrepresentation of students from HPSM groups in WIL. Creating and delivering quality WIL programming is essential to address the disparities and barriers students encounter. WIL programming should reflect a holistic understanding of students — inclusive of their intersectional identities, systemic, historical and contextual backgrounds and barriers to access. Quality WIL also reflects principles of EDI in an evolving and iterative way and necessitates consistent reflection and re-evaluation. These core ideas are highlighted throughout this guide.

In Chapter 1, an overview is provided of Kolb's experiential learning theory and other theories that focus on inclusion and equity and are relevant to quality WIL programming. These theories serve as a foundation for the remaining chapters. Chapters 2 to 5 provide background information and recommendations of effective practices for ways to enhance the educational quality of WIL programming while addressing each of Kolb's four learning modes: purposeful experience (Chapter 2); reflection (Chapter 3); the integration of theory and practice (Chapter 4); and applying new ideas (Chapter 5). Chapter 6 includes information for WIL program evaluation, including strategies to evaluate the effectiveness of a WIL program for student learning and development. Building on the previous chapters, Chapter 7 provides recommendations for broader curricular integration and meaningful partnerships with industry, government and community organizations to further advance the pedagogical practice and educational quality of the structured work experience in higher education settings.

Three aspects of quality WIL are integrated throughout this guidebook and highlighted in program spotlights: (1) student-centred support; (2) sustainable WIL partnerships; and (3) program development and evaluation.

Student-centred Support

Quality WIL experiences are defined by student engagement and success (Jackson et al., 2023). Placing students at the centre of WIL not only sustains inclusive environments that "accentuate the benefits of diverse workplaces" (Thakur, 2021, p. 15), but also allows WIL practitioners and institutions to better understand, acknowledge and validate students' lived experiences. A study on the perceptions of WIL practitioners in Ontario revealed that practitioners working closely with students were more likely to be aware of any challenges or difficulties the students faced (Cukier et al., 2018). These challenges may occur prior to the WIL activity. For example, students with disabilities may need support during the job search or recruitment processes, requiring a WIL practitioner to understand the needs of the student before entering into a WIL experience. Student-centred support, with the right adaptations to the curriculum and workplace, can also ensure that students with disabilities have successful engagement in WIL (Melis-De Lamper & Benner, 2024). Engagement has been linked to stronger practitioner–student relationships (Bulk et al., 2023) and building a "sense of purpose" (Jackson et al., 2023, p. 6) for all students.

Sustainable WIL Partnerships

Employers and institutions have a shared responsibility for creating and maintaining inclusive WIL environments (Jackson et al., 2023). Strong, long-lasting partnerships are critical in developing and maintaining program quality (Bulk et al., 2023; Jackson et al., 2017; Smith et al., 2014). With strong relationships, employers and institutions can ensure that their expectations are aligned (Jackson et al., 2017); practitioners can also guide employers in understanding the core aspects of WIL, including mentoring to support student development (Jackson et al., 2017; Ramji et al., 2021; Tunny et al., 2022). Strong partnerships also help facilitate efforts to use inclusive frameworks in WIL program development and delivery. This work can inform employers' efforts to improve workplaces more broadly, beyond student placements; with guidance from WIL practitioners, employers can develop more equitable hiring practices and workplace initiatives (Bulk et al., 2023; Cukier et al., 2018).

Program Development and Evaluation

EDI principles can be embedded across all stages of WIL programming. For example, program development can focus on supporting the employer–student relationship through available support resources, including mentorship training opportunities for employers (Jackson et al., 2017; Thakur, 2021). Placements can also be developed with accessibility in mind; employers and practitioners can ensure that all aspects of the experience — from recruitment through final assessment — are accessible for students with diverse learning styles and needs. PSE institutions can develop recruitment strategies that are aimed at a variety of geographic areas and reflect students' intersectional identities. Postings can also de-emphasize traditional academic and merit-based criteria and highlight student-development opportunities (Harvey et al., 2017; Itano-Boase et al., 2021; Tunny et al., 2022). WIL assessment tools can support a culturally safe environment: practitioners and employers can strive to understand student contexts and any systemic barriers the student has faced (Ramji et al., 2021). This environment can help ensure that students, employers and practitioners can develop respectful relationships (Ramji et al., 2021).

In order to assure the educational quality of the WIL experience, it is important that these programs be structured deliberately and grounded in empirical learning theory.

How to Use This Guide

This guide is designed so that it can be read from start to finish, or readers can turn directly to topic areas of interest.

Each chapter provides a combination of background information on the topic, key definitions, opportunities to reflect on past or present WIL practice, sample tools and activities, program spotlights and success stories exemplifying effective practices in WIL programming.

The intention is for the reader to bring personal experience with WIL to the reading and interpretation of the material included in this guide, and after reflecting on previous experiences in light of the material shared in this guide, readers will be in a good position to develop an action plan to enhance the educational quality of their structured WIL programs.

To assure the educational quality of the WIL experience, it is important that these programs be structured deliberately and grounded in empirical learning theory.

When effective, the WIL experience offers numerous benefits to students, workplace supervisors and employers, higher education institutions and industry, government and community partners (Aprile & Knight, 2019; Itano-Boase et al., 2021; Jackson et al., 2023; McRae et al., 2023; Sattler & Peters, 2012). However, compared to traditional classroom-based instruction, the delivery of WIL programs requires novel teaching strategies, including the deliberate integration of theory and practice, the development of specific learning outcomes for practice, and creative reflection exercises and assignments (Kennedy et al., 2015; Smigiel et al., 2015). Also included in the instruction of these courses/programs is a heavy emphasis on students' self-directed learning and professional responsibility in the workplace (Cukier et al., 2018; Drysdale & McBeath, 2018; Smigiel et al., 2015).

Another consideration in the delivery of WIL is the effectiveness of work-integrated programming in enhancing student learning and development. More specifically, recognizing that the benefits of WIL are not implicit within the work itself, but rather in the integration of theory and practice facilitated through the WIL experience (Billett, 2009; Cooper et al., 2010), it is important to consider how this integration may be achieved most effectively.

This guide includes the following components:

Key Terminology
Key terminology defined

Recommendations and Guidelines
Recommendations, guidelines and tips for effective practice

Give it a Try!
Sample tools, assignments, exercises and classroom activities

Reflection Questions
Personalized reflection questions/exercises

Success Stories
Examples and stories shared by faculty and staff leading WIL programs at colleges and universities in Ontario

Program Spotlights
Examples of WIL programs that successfully integrated principles of equity, diversity and inclusion

Benefits of Work-integrated Learning

Students

- Practical experience
- Applied learning
- Skill/professional development
- Networking
- Career exploration
- An edge in the job market
- Enhanced transition into the workplace
- Future career success
- Personal growth
- Awareness of self
- Increased local and global community engagement

Supervisor/ Employer

- Access to high-quality students for temporary employment
- Introduction of new ideas and innovation to work projects
- Access to current theoretical knowledge and resources
- Development of the employer's coaching and leadership skills, including skills for supporting historically marginalized students
- Reinforcement of previous education and training
- Potential full-time/ permanent employment of a candidate after graduation

Academic Institution

- Increased community engagement
- Increased communication with government, community and industry
- Opportunities for curriculum enhancement with applied content that is inclusive and accessible for all students
- Enhanced student education, satisfaction and engagement
- Enhanced student recruitment

Worksite

- Development and maintenance of a positive reputation
- Application of theoretical knowledge to the workplace
- Opportunities for evaluation
- Improved employee morale
- Opportunities for recruitment of strong 'work-ready' graduates
- Opportunities to create welcoming, inclusive and culturally safe spaces

References: Coco, 2000; Cukier et al., 2018; Divine et al., 2007; Eady et al., 2022; Gatto et al., 2021; Gault et al., 2010; Gault et al., 2000; Huling, 2001; Hynie et al., 2011; Knemeyer & Murphy, 2002; Knouse & Fontenot, 2008; Nielsen et al., 2022; Paris & Adams, 1994; Denmark & Podsen, 2013; Ross & Elechi, 2006; Sattler, 2011; Sattler & Peters, 2012; Schmutte, 1986; Thakur, 2021; Tunny et al., 2022; Weible, 2009

1 Theoretically Grounded WIL

In order to set the foundation for better understanding WIL, this introductory chapter defines experiential education and learning and provides an overview of Kolb's experiential learning theory, including the historical theories that led to its development. Kolb's tenets of experiential learning, the experiential learning cycle, learning styles and developmental process are summarized and followed by critiques of the theory and a review of other theories and models that are applicable to WIL.

Experiential Education and Experiential Learning Defined

"Learning from experience" begins with experiential education in the broadest sense and is followed by experiential learning in the field. One of the ways in which learning in the field can be facilitated is through work-integrated learning (WIL).

Experiential education refers broadly to a philosophical process that guides the development of structural and functional learning experiences, attends to the ethics of knowledge and outlines the overarching standards for learning environments (Roberts, 2012). ***Experiential learning*** is considered to represent the specific techniques or mechanisms that an individual can implement to acquire knowledge or meet learning goals (Roberts, 2012). Experiential learning also has roots in Indigenous ways of being (i.e., "learning by doing or seeing") (Cajete, 1994, p. 33). According to Keeton and Tate (1978), learning is experiential when "the learner is directly in touch with the realities being studied … it involves a direct encounter with the phenomenon being studied rather than merely thinking about it" (p. 2). Further, Beard and Wilson (2013) recognize experience as the "bridge" between an individual and their external environment (p. 26). As a result, Boud et al. (1993) suggest that there is little value in detaching learning from experience, as experience is the main facilitator of learning. This type of learning can be achieved in academic settings (e.g., mechanisms for testing theoretical concepts in the workplace) and/or extracurricular environments (e.g., techniques for learning to skate) (Roberts, 2012). Essentially, experiential learning is "the process whereby knowledge is created through transformation of experience" (Kolb, 1984, p. 38). Despite substantial support for the role of experience as a cornerstone of learning, it must be noted that learning is not an automatic result of experience (Beard & Wilson, 2013). Instead, deliberate engagement with an experience (e.g., critical reflection on aspects of experience) is required for effective experiential learning (Beard & Wilson, 2013).

Experiential learning can be facilitated in postsecondary education through ***work-integrated learning***, which is a broad term that encompasses various learning opportunities centred on the integration of academic learning and practical application in a chosen work environment (Sattler, 2011).

KEY TERMINOLOGY

Experiential education is the philosophical process that guides the development of structural and functional learning experiences.

Experiential learning refers to the specific techniques or mechanisms that an individual can implement to acquire knowledge or meet learning goals.

(Roberts, 2012)

Kolb's Experiential Learning Theory

Drawing from the works of Dewey (1938), Lewin (1951) and Piaget (1978), David A. Kolb's (1984) theory is founded on the notion that learning occurs when an individual recognizes a personal experience and transforms that experience through their affect, perceptions, cognitions and/or behaviours.

Tenets of Experiential Learning Theory

Kolb and Kolb (2005) identify six core tenets upon which the experiential learning theory is founded, including: 1. Learning is a process; 2. Learning is grounded in experience; 3. Learning involves mastery of all four learning modes; 4. Learning is a holistic process of adaption; 5. Learning occurs when an individual interacts with their environment; and 6. Knowledge is created through learning.

RECOMMENDATIONS AND GUIDELINES

Tenets of Experiential Learning Theory

1. Learning is a process.	• Promoting student acknowledgement of previous informal and formal learning • Student learning is viewed as ongoing • Encouraging the modification of ideas or techniques throughout the WIL experience
2. Learning is grounded in experience.	• Introducing student learning experiences at an appropriate pace and progression • Challenging students' preconceptions in light of new experience, theory and reflection
3. Learning involves mastery of all four learning modules.	• Providing students with opportunities to experience, reflect, theorize and apply
4. Learning is a holistic process of adaptation.	• Addressing students' feelings, perceptions, thoughts and actual behaviours throughout the WIL experience
5. Learning occurs when an individual interacts with their environment.	• Providing students with experience in the wider real-world environment (e.g., workplace context)
6. Knowledge is created through learning.	• Learning should be individualized to each student • Assigning students responsibility over their own learning

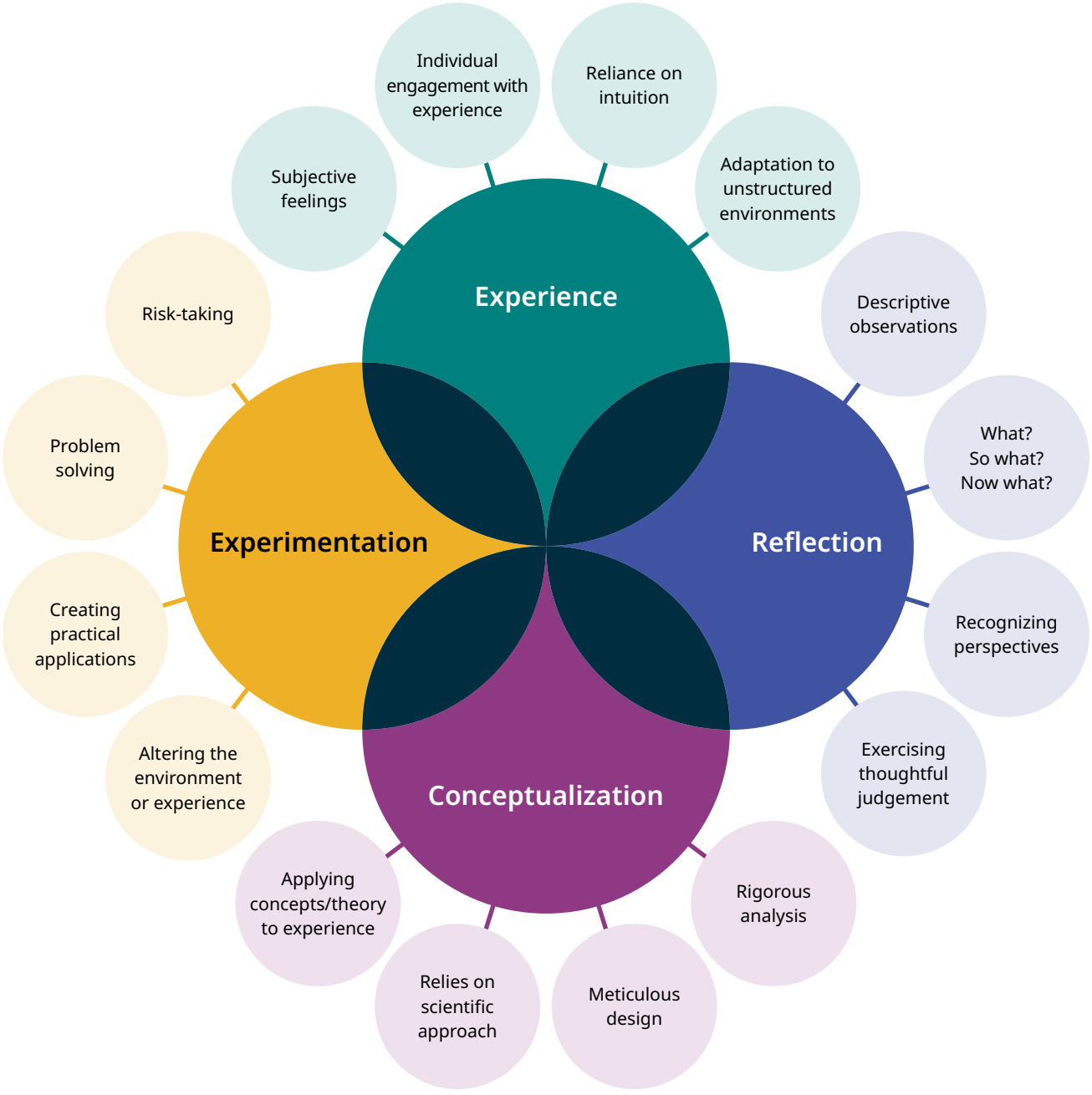
Adapted from Kolb (1984) and Stirling (2013).

Experiential Learning Cycle

Kolb's (1984) theory is comprised of four major modes of learning: concrete experience (feeling dimension), reflective observation (watching dimension), abstract conceptualization (thinking dimension), and active experimentation (doing dimension). When each mode is represented adequately, an optimal level of learning occurs (Kolb, 1984). It is important to note that the four major modes of learning do not have to occur in a sequential manner (Evans, Forney, Guido, Patton & Renn, 2010; Kolb, Boyatzis & Mainemelis, 2001). While Kolb's experiential learning cycle is typically presented as a four-stage cycle that may be entered at any point, in this guide the four learning modes are presented as overlapping in a Venn diagram, in order to highlight the integration of each of these modes for effective student learning.

Kolb's Modes of Experiential Learning

(Adapted from Kolb, 1984)



Four Major Modes of Learning

The ***concrete experience (CE)*** mode of learning emphasizes an individual's engagement with an experience. It centres on the subjective feelings attached to an individual's present reality. Individuals with an orientation toward this learning mode typically rely on their intuition, interact well with others and can adapt to unstructured environments.

Reflective observation (RO) centres on descriptive observations of the experience. The major aspect of this mode is reflection for the purpose of revealing what or how an event occurred. Those with an RO orientation are skilled at recognizing various perspectives and exercising thoughtful judgement.

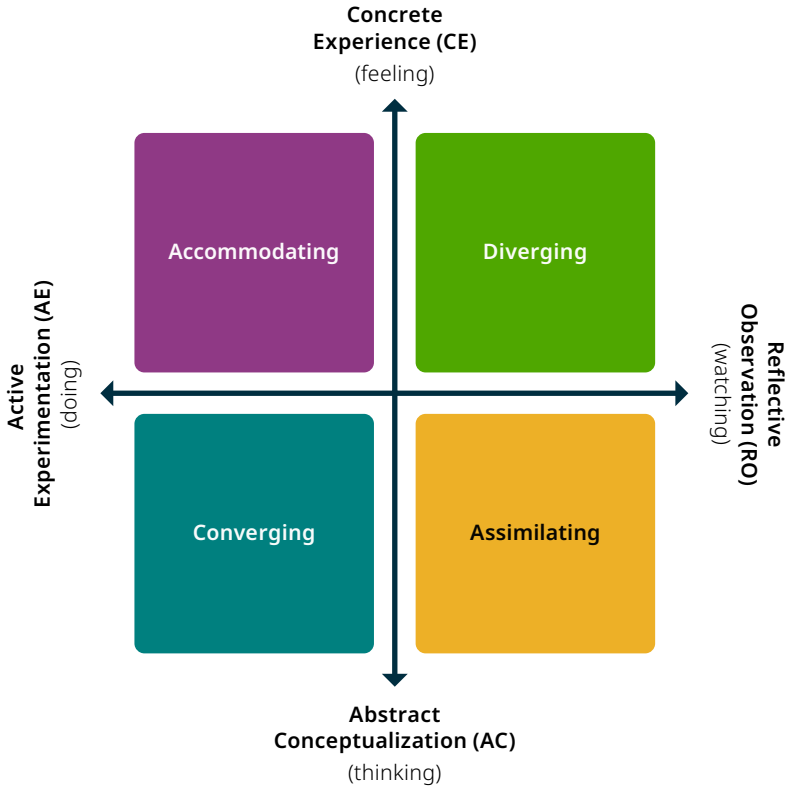
Abstract conceptualization (AC) centres on applying logic, theory and concepts to an experience. This learning mode relies primarily on a pure scientific approach. Individuals with an orientation toward AC are skilled at meticulous design and rigorous analysis of concepts and ideas.

Finally, the ***active experimentation (AE)*** mode of learning emphasizes the use of experimentation to alter an environment or an experience. It focuses on creating practical, effective applications to solve pertinent issues. Individuals with an orientation toward this learning mode are inclined to take risks if it will assist them in reaching their goals.

Basic Learning Styles

In addition to the four major modes of learning, Kolb's (1984) theory identifies four basic learning styles often adopted when acquiring new or building on existing knowledge (Kolb, 1984). Adopting a particular learning style is typically a result of various influences encountered throughout an individual's life (e.g., parents, peers, education, employment). The four learning styles outlined by Kolb (1984) are converging, diverging, assimilating and accommodating. Each learning style favours an orientation toward two learning modes. The ***converging*** learning style is associated with an orientation toward active experimentation and abstract conceptualization. Skills commonly associated with this learning style include problem solving, reasoning and practice. The ***diverging*** learning style is associated with an orientation toward concrete experience and reflective observation. Skills commonly associated with this learning style include considering multiple perspectives, observing one's feelings and possessing a creative imagination. The ***assimilating*** learning style is associated with an orientation towards abstract conceptualization and reflective observation. Skills commonly associated with this learning style include generating theoretical frameworks and interpreting abstract thoughts or ideas. The ***accommodating*** learning style is associated with concrete experience and active experimentation. Skills commonly associated with this learning style include engaging in activities, implementing designs, taking risks and adapting to new environments.

Interestingly, a person's chosen vocation often aligns with and accentuates their learning style (Kolb, 1984). For example, young adults who choose to pursue postsecondary education in business-related programs tend to favour an accommodating learning style, while those who choose programs that involve abstract concepts (e.g., math or chemistry) favour an assimilating learning style (Kolb, 1984). Information on Kolb's learning styles is included in this guide as they are commonly cited in relation to career exploration and career counselling. As a reminder, regardless of the student's intended career choice or preferred learning mode, all four learning modes must be addressed in order for learning to be most effective in the structured work environment.



Learning Style	Common Career Paths
Converging	• Computer science and engineering • Finance and economics • Applied sciences • Medicine
Diverging	• Arts and entertainment • Communications • Social service
Assimilating	• Sciences and mathematics • Social and physical sciences • Legal professions • Research and higher education
Accommodating	• Management and HR • Sales and marketing • Teaching • Nursing • Government

Evans et al., 2010

Experiential Learning as a Developmental Process

According to Kolb (1984), experiential learning is often accompanied by personal development. From this perspective, the connection between learning and development occurs when an individual's personal qualities interact with the external environment and provide an opportunity for personal knowledge to collaborate with the cultural or social knowledge of this environment (Kolb, 1984). In the context of experiential learning theory, personal development relies on the degree of complexity an individual reaches within each learning mode, as well as an individual's abilities to integrate and effectively express all four learning modes (Kolb, 1984). As individuals develop through the learning process, they progress through the developmental phases of acquisition, specialization and integration. In the phase of acquisition, basic learning abilities and cognitive structures develop. Specialization includes the shaping and development of a particular learning style through social, educational and organizational socialization forces. And the integration phase of development occurs when a person emphasizes the expression of their non-dominant adaptive/learning modes or learning styles in work and personal contexts. In this developmental process, the ability to integrate all four learning modes is an indicator of personal growth and viewed to be important for personal fulfillment and cultural development (Evans et al., 2010).

Critiques of Experiential Education

The general idea of implementing experiential education in postsecondary environments has been met with two major criticisms. The first critique involves the objective of experiential education in postsecondary institutions. The second critique expresses skepticism regarding the pedagogical value of these learning opportunities (Butin, 2005; Thornton Moore, 2010).

The 'objective' critique of experiential education questions whether experience, such as workplace experience, should have a place in postsecondary educational programming. This question stems from the claim that postsecondary education has traditionally been focused on educating students on classic theories and texts, and may thus be incompatible with the applied practical skills required in real work environments (Thornton Moore, 2010). The idea is that while favouring absolute science in postsecondary education, students might be prevented from exploring alternative views of thinking and learning. Therefore, there is a "problem of fit," in which the forms of knowledge acquired in postsecondary institutions do not align clearly with the knowledge required for optimal functioning in the workplace (Thornton Moore, 2010).

The 'pedagogical' critique of experiential education targets the quality of experiential programming in higher education. It highlights several pedagogical gaps that generally exist, including an overemphasis on the activity itself, a lack of rigorous and critical reflection, a lack of integration of theory and practice, and a lack of connection with broader curricular learning and community needs (Thornton Moore, 2010). Thornton Moore (2010) explains that the shortcomings of experiential education are exposed when the purpose of the WIL is not pedagogically grounded and instead viewed solely as an opportunity for career exploration or networking, rather than primarily as a learning experience. Administered in this way, Thornton Moore (2010) argues that the value of the experiential activity is minimal: "The student could have learned the same things just by virtue of having a part-time job or volunteer service activity. Experiential pedagogy, done right, is extremely rewarding — but also extremely demanding" (p. 10).

To address the objective critique, Kirschner and Whitson (1997) and Lave and Wenger (1999) argue that individuals adopt various ways of thinking and learning when they are engaged in different contexts. For example, they might identify problems in certain ways or choose to solve those problems with a variety of techniques, depending on the context in which the problem occurs (Thornton Moore, 2010). From this standpoint, they suggest that postsecondary institutions may emphasize a scientific perspective, while the workplace emphasizes adaptive action or meaning making (Thornton Moore, 2010). Consistent with this line of thought, Bailey et al. (2004) suggest that within appropriate parameters, experiential learning can be beneficial in postsecondary environments.

The pedagogical critique highlights the importance of using theories such as Kolb's to structure educational environments, as these theories provide guidelines to assist students in transferring knowledge learned in the classroom to practice, and vice versa (Moore, 2010).

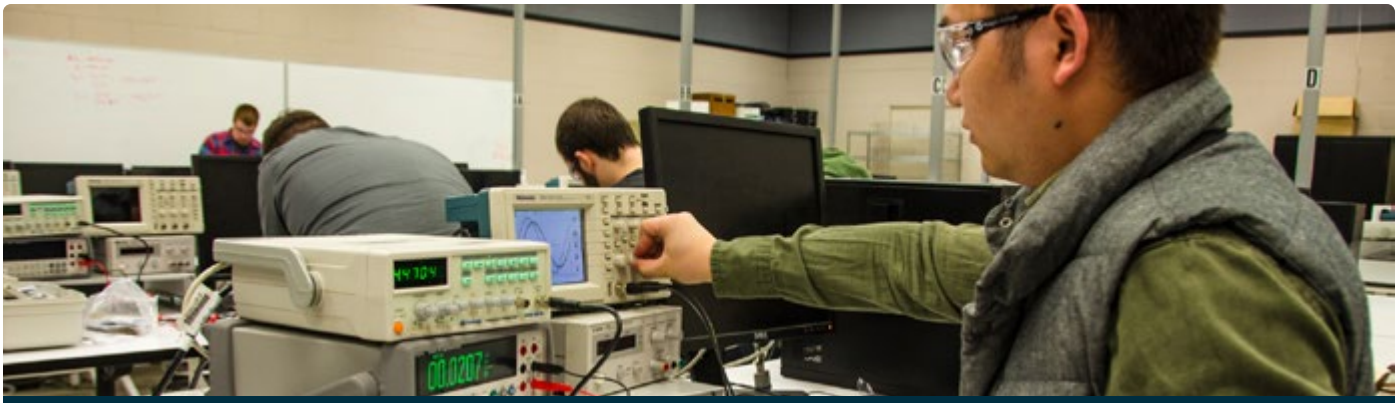
Objective Critique	Pedagogical Critique
• Attends to the fundamental question of whether experience should be involved in postsecondary education (Thornton Moore, 2010) • Those who support the objective critique often view postsecondary education as a platform for exploring classic theories and texts, or for learning about science in a pure or absolute manner (Bloom, 1987; Hart, 2001). • From this perspective, critics question whether traditional postsecondary learning (e.g., classic texts or pure science) is compatible with experiential learning (Thornton Moore, 2010).	• Focuses on whether the current organization and delivery of postsecondary education curricula fulfill the potential of experiential learning opportunities (Thornton Moore, 2010) • This critique emphasizes the importance of the proper transfer of learning between contexts and highlights several pedagogical gaps, including an overemphasis on the activity itself, a lack of rigorous and critical reflection, a lack of integration of theory and practice and a lack of connection with broader curricular learning and community needs (Thornton Moore, 2010).

Critiques of Kolb's Experiential Learning Theory

It is also important to recognize some of the critiques challenging Kolb's (1984) experiential learning theory, as it can sometimes be viewed as a taken-for-granted truth regarding experiential learning (Beard & Wilson, 2013).

Some of the critiques of the philosophy of experiential learning theory include: the lack of perspective on the various ways humans acquire knowledge or transform learning (Webb, 2004); its integration of diverse frameworks from various fields without recognizing significant differences in these areas with regards to conceptualizations of learning, knowledge, truth and experience (Webb, 2004); a lack of focus on both the context (Morris, 2020) and role of emotion throughout the learning experience (Matsuo & Nagata, 2020); and its inadequate representation of the theories it was built upon (Dewey, 1938; Lewin, 1951; Piaget, 1978; Miettinen, 2000). Furthermore, some of the critiques of the practical application of experiential learning theory include its limited consideration and applicability to non-Western cultures (Arney, 2022; Dickson, 2000; Forrest, 2004; Smith, 2001, 2010); the oversimplification of learning modes and styles (Forrest, 2004); and the lack of consideration of both social influences (Matsuo & Nagata, 2020; Miettinen, 2000; Morris, 2020) and power relations (Vince, 1998) in the learning process.

Despite critical appraisal of Kolb's (1984) theory, scholars conclude that the significance of this theory for postsecondary education cannot be undermined (Eyler, 2009). Specifically, the scientific approach to experience puts emphasis on the learner — as opposed to the teacher — as primarily responsible for knowledge acquisition and transformation (Kelly, 1997). In addition, Kolb's (1984) theory has been highly regarded for the advancement and unification of several important learning theories (e.g., Dewey, 1938; Lewin, 1951; Piaget, 1978) into one coherent overarching framework (Beard & Wilson, 2013; Greenaway, 2015). Furthermore, basic scientific models, such as experiential learning theory, tend to be viewed as accessible and relevant for use by practitioners and learners (Beard & Wilson, 2013). Overall, this theory has raised awareness of experiential learning as a critical aspect of postsecondary education (Brookfield, 1990; Cross, 1981; Jarvis, 1995; Kemp et al., 1996; McKeachie, 1994).



Learning is not an automatic result of experience. Instead, deliberate engagement with an experience is required for effective experiential learning.

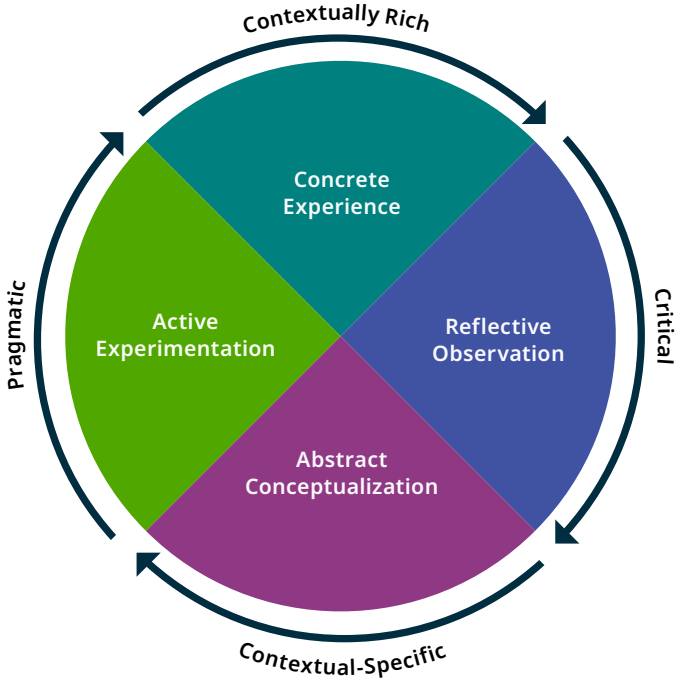
Critiques of Philosophy	Critiques of Practical Application
• Kolb's (1984) theory recommends techniques or modes that can lead to experiential learning, yet his theory does not provide a philosophical perspective for what 'learning' entails, or the ways in which humans acquire knowledge or transform learning (Webb, 2004). • The tenets of experiential learning theory assume the integration of various frameworks of thought (e.g., epistemology, psychology), and in so doing disregard some of the significant differences in these areas with regards to conceptualizations of learning, knowledge, truth and experience (Webb, 2004). • Kolb's (1984) theory does not place enough emphasis on the context of the learning experience (i.e., place and time) or the role of emotions (e.g., managing fear, anxiety or doubt), which are both critical to the broader process of learning (Matsuo & Nagata, 2020; Morris, 2020). • Kolb's (1984) theory is not an adequate representation of the theories by which it was informed (Dewey, 1938; Lewin, 1951; Piaget, 1978; Miettinen, 2000).	• There is minimal consideration of cultures outside of the Western world. As a result, the applicability of experiential learning theory to these cultures may be limited (Arney, 2022; Dickson, 2000; Forrest, 2004; Smith, 2001, 2010). • The learning modes and styles are too simplistic to be widely applicable (Forrest, 2004). • Learning appears to occur independently, which overlooks the importance of feedback and collaboration with others to enhance knowledge acquisition and assist in drawing conclusions from experiences (Miettinen, 2000). • There is limited empirical support for the theory (Jarvis, 1987; Tennant, 1997) • The theory does not attend to the potential unequal power relations involved in the learning process (Vince, 1998).

Taking critiques of Kolb's theory a step further, Morris (2020) offered a revised model and redefined the experiential learning cycle. According to Morris (2020), Kolb's (1984) learning modes theory lacked clarity and cohesion and failed to consider social context as central to learning. After examining 60 studies on the ways learning, or 'concrete experiences,' have been defined in the years since Kolb's (1984) theory was first published, Morris (2020) found that concrete experiences were highly contextualized, involving hands-on learning in "uncontrived real-world situations" (p. 1070). In other words, the place (community, cultural, societal and social) and time (present and historical) of the learning are significant to the learning process. Building on this critique, Morris (2020) found that each learning mode from Kolb's (1984) theory needed adjustment to better highlight the value of social context during the learning process (see image below). Morris (2020) also adds to Kolb's cyclical model of experiential learning by including all four learning modes in a circle, illustrating the connections between each mode.

Experiential Learning Cycle

(a revision to D. A. Kolb's 1984 model)

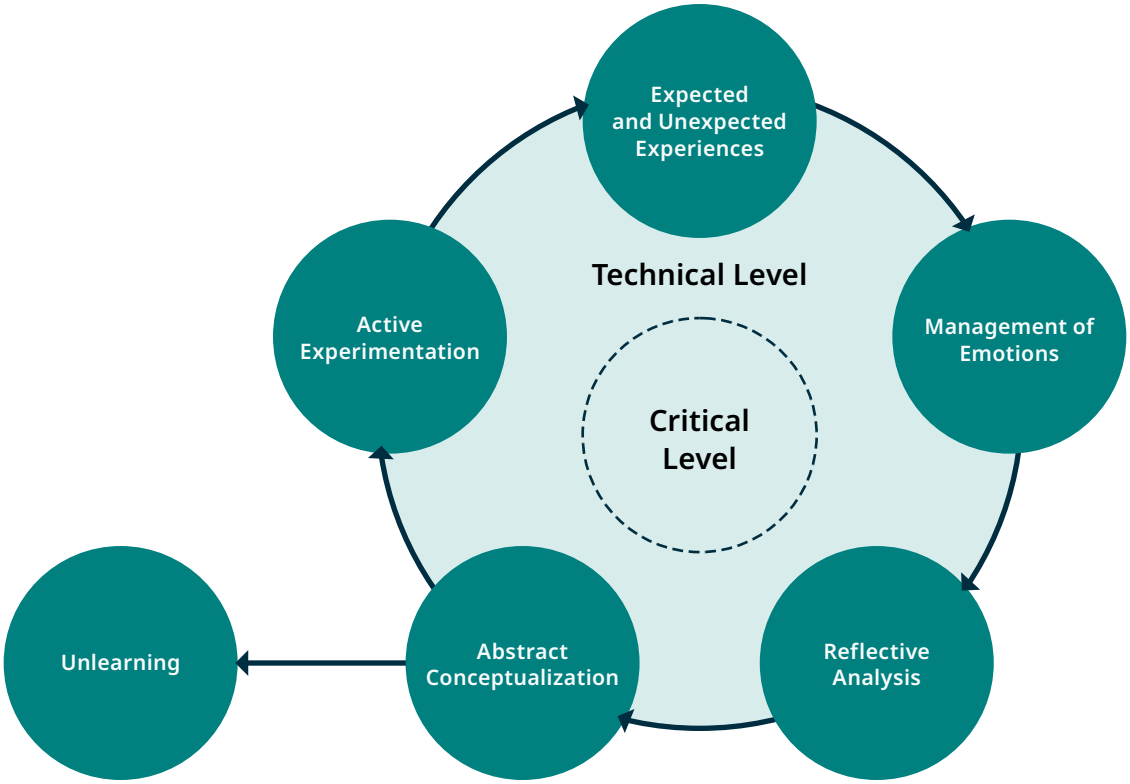
(Morris, 2020, p. 1070)



Similar to Morris (2020), Matsuo and Nagata (2020) created a revised model to address limitations in Kolb's (1984) work. Besides emphasizing the need to engage in critical reflection, Matsuo and Nagata stressed the role of emotions and habitual thinking in the learning process. For instance, the authors highlight the importance of managing emotions such as fear, anxiety and doubt, which can impact all stages of learning. In addition, they added 'unlearning' to the experiential learning cycle to support the disruption of "habitual thinking and action … [and the transformation of] values, beliefs, and assumptions" (p. 147). Adding this stage encourages students to challenge biases, which supports their process of "learning to unlearn" and deepens their learning experience (p. 147). Furthermore, Matsuo and Nagata revised the 'concrete experience' mode to 'expected and unexpected experiences' to underscore the significance of realistic unexpected events that arise while learning takes place, all of which impact learning (see image below). The authors' changes to Kolb's (1984) model also highlight the interplay between the different modes of learning in the experiential learning cycle: the management of emotions, brought on by unexpected experiences, requires appropriate coping skills, and may support a balanced critical reflection and deeper learning process. Thus, taking these additional steps into account encourages richer learning experiences. Lastly, like Morris' (2020), this model represents the learning process in a circular shape to demonstrate the cyclical and connected features of learning.

Revised Model of the Experiential Learning Process

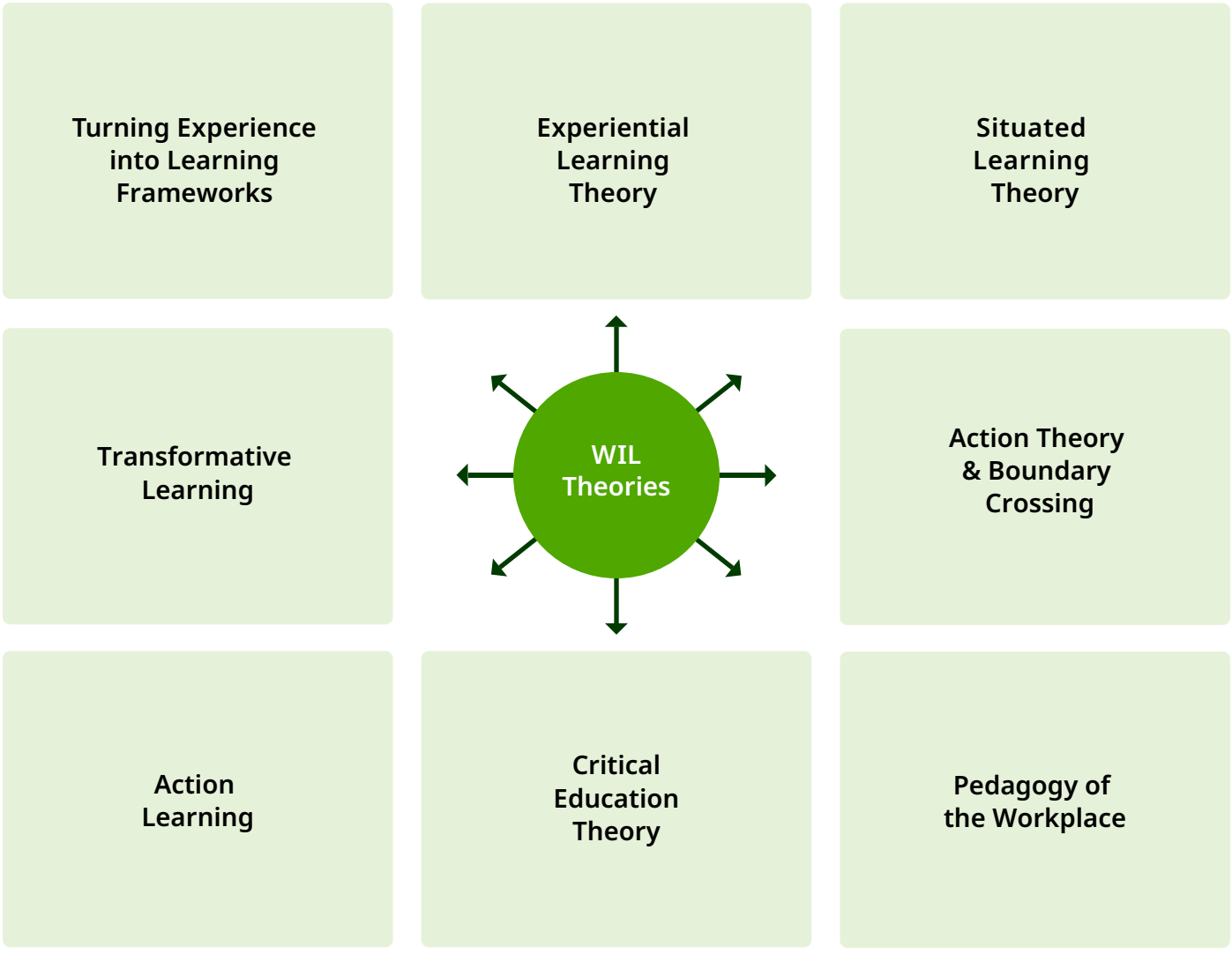
(Matsuo & Nagata, 2020, p. 147)



Other Experiential and WIL Theories

While Kolb's (1984) theory provides the guiding framework for this resource, it is important to recognize that other models are used in the experiential learning environments and may be applied to the student learning that takes place in an inclusive and structured work experience.

Sattler (2011) and Keating (2006) review a number of student learning theories that may be used to advance the educational quality of WIL programming, including situated learning theory (Lave & Wenger, 1991), action theory and boundary crossing (Guile & Griffiths, 2001), pedagogy of the workplace (Billett, 1996, 2002, 2011) and critical education theory (Myers-Lipton, 1998). Other theories that may also apply to WIL include action learning (Bonwell & Eison, 1991), transformational learning theory (Mezirow, 1997) and the Turning Experience into Learning Framework (Boud et al., 1985).



Additional Frameworks to Support EDI in WIL

Conceptual frameworks that focus on EDI and inclusive principles can also be used to strengthen the quality of WIL programming. Intersectionality, culturally relevant pedagogy and Critical Race Theory in education provide lenses that can be used in program design and the development of student supports.

Intersectionality

Intersectionality was originally described as a metaphor for understanding the ways Black women "are frequently the product of intersecting patterns of racism and sexism" (Crenshaw, 1991, p. 1243). As the term has expanded into educational spaces, intersectionality is helpful to understand systems of inequity for historically marginalized and oppressed students (e.g., discrimination based on gender, race, ethnicity, disability or class). Applying an intersectional lens allows institutions and WIL practitioners to address the cultural and systemic barriers students face, prevent bias in curriculum design, challenge harmful stereotypes and normalize diverse perspectives (Ramji et al., 2021; Thakur, 2021; Tunny et al., 2022).

In practice, some university WIL programs and other experiential learning components have focused on teaching students to be allies and engage in critical self-reflection, as well as discuss ideas related to power, inclusion and accessibility (Craig et al., 2022; Dessel & Corvidae, 2016). This approach encourages educators to help students consider and understand both privileged and oppressed identities, as well as assess their own biases and cultural beliefs practically. Moreover, these processes support skill development such as empathy and cultural competency (Dessel & Corvidae, 2016), both of which are crucial to labour market entry and applicable to all sectors of the economy (Berdahl, 2023).

Culturally Relevant Pedagogy

Culturally relevant pedagogy (Howard, 2003; Khalifa, 2018; Ladson-Billings, 1995; Yosso, 2005) can help practitioners apply EDI principles in a tangible way. Adopting culturally relevant pedagogy requires educators to embrace cultural differences rather than view them as a hindrance. 'Culture' can be defined broadly to apply to a variety of student background characteristics, including disability status. When culturally relevant pedagogy is practically applied, students are provided a space to express themselves in ways that support their culture and identity — an approach that often misaligns with dominant Western teaching methods (Ladson-Billings, 1995). For example, practitioners and employers may support students by facilitating projects connected to the student's cultural background or that allow them to use other languages in their work (e.g., research and data analysis in another language).

An inclusive approach can also support the engagement of students with disabilities in WIL (Melis de-Lamper & Benner, 2024). This is particularly important given the WIL participation rates for student with disabilities. Gatto et al. (2021) found that only 23% of students who have registered for academic accommodations (due to disabilities) at a Canadian institution have engaged in WIL. They also found that disability was a factor in students with disabilities self-selecting out of voluntary WIL programs.

To better support Indigenous students, educators can use community-based models that place "culture … at the core of the curriculum" (Cameron & Rexe, 2022, p. 213). Such opportunities highlight the value students bring to WIL opportunities, including knowledge, skills and experiences that can benefit workplaces (Dean & Campbell, 2020). Inclusive, quality WIL experiences can also equip students with culturally relevant competencies to enhance their self-awareness (of their identities, their biases and their assumptions) and support students to learn and engage effectively, appropriately and respectfully across different cultural contexts. McRae et al. (2017, 2023) and Ramji et al. (2023) offer pedagogical and curricular insights into achieving this goal. WIL practitioners, employers and institutions should engage in ongoing professional development on the use of culturally relevant pedagogy in their programming. This will help them develop "increased familiarity with, and sensitivity to, the challenges facing students" (Thakur, 2021, p. 11).

Critical Race Theory in Education

Other theoretical frameworks challenge traditional ideas about the learning process and encourage wider consideration of historical context and positionality in the implementation of experiential learning. Critical Race Theory (CRT) (Delgado & Stefancic, 2000; Ladson-Billings & Tate, 1995; Tate, 1997) was originally used to understand systemic inequities in the legal field. Scholars have since migrated some of CRT's principles over to education to interpret, analyze and challenge existing inequities in educational spaces. This model — which is known as CRT in Education (Ladson-Billings & Tate, 1995; Tate, 1997) — can be used to explore persistent student exclusion and marginalization that can arise from conscious and unconscious decisions made during program development and delivery. CRT in Education may also be used in professional development for institutions and employers so that they may better understand the cultural and financial barriers to participation in WIL (Harvey et al., 2017).

Several other theories have evolved from CRT to highlight the experiences of those most often overlooked and challenge the Black/white paradigm that often dominates race discourse. Additional inclusive theories that may be applied to the practice of WIL include:

- Dis/ability CRT (also known as DisCrit) (see Annamma et al., 2013);
- Asian CRT (also known as AsianCrit) (see Iftikar & Museus, 2018);
- Tribal CRT (also known as TribalCrit) (see Brayboy, 2005); and
- Latino/a CRT (also known as LatCrit) (see Solorzano & Bernal, 2001).

These additional frameworks can be integrated with Kolb's (1984) theory to provide a foundation for inclusive program design and development. The models can inform all program elements — from program inception to purpose, curriculum, institutional partnerships, evaluation and assessment strategies — to ensure that all students have access to high-quality learning experiences.

The ability to integrate all four learning modes is an indicator of personal growth and viewed to be important for personal fulfillment and cultural development.

Summary of Theoretically Grounded WIL

1

Learning is not an automatic result of experience. Instead, deliberate engagement with an experience is required for effective experiential learning (Thornton Moore, 2010).

Experiential education is the philosophical process that guides the development of structural and functional learning experiences (Roberts, 2012).

Experiential learning refers to the specific techniques or mechanisms that an individual can implement in order to acquire knowledge or meet learning goals (Roberts, 2012).

Philosophies centered on experience as a form of learning have developed over time, beginning with Greek philosophers such as Plato and Aristotle and evolving to present-day thought with scholars such as Piaget, Lewin, Dewey and Kolb.

Kolb's (1984) experiential learning theory can provide a theoretical framework to guide learning through experience. It is characterized by six tenets:

1. Learning is a process.
2. Learning is grounded in experience.
3. Learning involves mastery of all four learning modes.
4. Learning is a holistic process of adaptation.
5. Learning occurs when individual interacts with their environment.
6. Knowledge is created through learning.

The theory is composed of four major modes of learning:

- ***Concrete experience*** centers on the student's engagement with an experience;
- ***Reflective observation*** involves engagement in descriptive observations of what or how an event was experienced;
- ***Abstract conceptualization*** focuses on connecting theoretical concepts and logic to an experience; and
- ***Active experimentation*** emphasizes the use of experimentation within an experiential learning environment.

The ability to integrate all four learning modes through WIL is an indicator of personal growth and viewed as important for personal and cultural development.

Kolb's (1984) model also highlights four basic learning styles that learners typically adopt when acquiring new or building on existing knowledge (Kolb, 1984), including:

- Converger: oriented towards active experimentation and abstract conceptualization;
- Diverger: oriented towards concrete experience and reflective observation;
- Assimilator: oriented towards abstract conceptualization and reflective observation; and
- Accommodator: oriented towards concrete experience and active experimentation.

Experiential learning also tends to be associated with personal development for the students (Kolb, 1984). The developmental phases encountered throughout the learning process include:

- Acquisition: development of basic learning capacities and cognitive structures;
- Specialization: development of a learning style based on the social, educational and organizational forces one encounters; and
- Integration: development through the demonstration of the students' non-dominant learning style in work or personal environments.

Several critiques regarding Kolb's (1984) experiential learning theory have been identified, including:

- The critique of objective, which views postsecondary education environments as a place for learning classic texts rather than the development of practical skills (Bloom, 1987; Hart, 2001);
- The critique of pedagogy, which questions whether postsecondary environments deliver a curriculum that fulfills the potential of experiential learning (Thornton Moore, 2010);
- Critiques of philosophy, which point to Kolb's (1984) lack of attention to the ways in which humans acquire knowledge and define learning, and his inadequate representation of the theories upon which his ideas are based (Miettinen, 2000); and
- Critiques of practical application, which identify Kolb's lack of consideration for non-Western cultures (Arney, 2022; Dickson, 2000; Forrest, 2004), minimal empirical support for the theory (Jarvis, 1995; Tennant, 1997) and inattention to the collaborative nature of learning (Miettinen, 2000).

New models based on Kolb's (1984) experiential learning theory offer additional elements to be considered throughout the learning process. They include:

- A redefining of the experiential learning cycle that acknowledges the community and society, and the cultural and social aspects of the learning experiences (Morris, 2020); and
- A revision to Kolb's (1984) model of experiential learning that emphasizes emotion in the learning process and highlights the value of unlearning as a disrupter to "habitual thinking and action" (Matsuo & Nagata, 2020, p. 147).

Several conceptual frameworks focused on inclusion and equity may be applied to Kolb's (1984) experiential learning theory to facilitate student success and quality WIL experiences:

- Intersectionality (Crenshaw, 1991) offers a framework for institutions and WIL practitioners to address the cultural and systemic barriers students face, prevent bias in curriculum design, challenge harmful stereotypes and normalize diverse perspectives (Ramji et al., 2021; Thakur, 2021; Tunny et al., 2022).
- Culturally relevant pedagogy (Howard, 2003; Khalifa, 2018; Ladson-Billings, 1995; Ramji et al., 2021; Yosso, 2005) embraces cultural differences. When practically applied, students are provided a space to express themselves in ways that support their culture and identity.
- Critical Race Theory (CRT) in Education (Ladson-Billings & Tate, 1995; Tate, 1997) necessitates understanding the historical context of diverse perspectives and contextualizes social inequities; applying CRT may help WIL practitioners address student exclusion and marginalization during program development and delivery.

Despite critical appraisal of Kolb's (1984) theory, scholars conclude that the significance of this theory for postsecondary education cannot be undermined (Eyler, 2009). As such, this theory was used as the theoretical framework for this guide.

2 Purposeful Experience

Focusing on Kolb's concrete experience learning mode, this chapter provides an overview of effective practices for facilitating purposeful experience, including specific forms of the structured work experience (e.g., practicum, internship, co-op) and designs (i.e., project implementation–work experience). The importance of aligning the forms and design of WIL with the learning emphasis of the work experience (i.e., learning outcomes, learning assessment and learning plans) is highlighted. Furthermore, in order to enhance the educational quality of the student's experience, the learner's physical and social learning environment must be considered, including considerations for diverse learning styles, managing risk and facilitating mentoring relations.

Structured Work Experience

Looking specifically at the provision of WIL in Ontario's postsecondary sector, Sattler (2011) outlines a typology to explain the different types of WIL experiences in colleges and universities, including: ***systematic training***, in which the workplace is "the central piece of the learning" (e.g., apprenticeship); the **structured work experience**, in which "students are familiarized with the world of work within a postsecondary education program" (e.g., field experience, co-op, internship); and ***institutional partnerships***, which refer to "postsecondary education activities [designed] to achieve industry or community goals" (e.g., service learning) (p. 29).

Further definitions have been proposed for the different forms of structured work experience, such as co-ops, internships, placements and field experiences. Based on the definitions employed by various WIL practitioners in Ontario postsecondary institutions, Sattler (2011) charts a number of (overlapping) points under different criteria in an attempt to distinguish between forms of structured work experience, such as duration, mode of delivery, common program sector, job descriptions, assessment measures, compensation and main educational purpose (Sattler, 2011). While there is little consensus on the specific criteria by which to define each of these structured work experiences (e.g., duration, pay requirements), adopted from Cooper et al. (2010) and supported by the Higher Education Research and Development Society of Australia, O'Shea (2014) provides a general description of each of the main forms of structured work experience, including placements, practicums, internships, co-operative education, sandwich courses, field education or experiences and fieldwork (O'Shea, 2014).

Forms of Structured Work Experience

(Adapted from O'Shea, 2014)

Placement
Umbrella term describing all structured work experience. Learning emphasis on career exploration and employability/ professional skill development.

Practicum
Focus is on developing professional capabilities and meeting professional registration requirements as defined by accrediting body.

Internship
Work experience under the guidance of an experienced professional. Deep learning and realistic preview of employment sector.

Co-op Education
Guided professional and employability skill development through alternating full-time study and full-time employment across an academic program.

Sandwich Course
A supervised work position in the practice of the student's future profession. Occurs during a period of time away from study.

Field Experience
Work experience linked to program content and designed for the purpose of preparation for professional practice.

Field Work
Exposure to the work setting through participation in work activities, site visits, etc. Experience used to enhance learning of academic content.

Work Study
Concurrent work experience not necessarily in the practice of future profession. Often tied to general professional and/or personal development.

Forms of Structured Work Experience

Consistent with the focus of this guide, forms of work experience are differentiated by their learning emphasis and structure.

According to O'Shea (2014), the term ***placement*** is used as an "umbrella term" describing a range of structured work experiences in which a student performs work in an organization that has been approved by the postsecondary institution (p. 8). In a placement, the learning emphasis is on career exploration, with employability or professional skills development and knowledge and practice as a secondary focus.

Practicum refers to the experience by which professional capabilities are developed in a work setting, with the aim of meeting professional registration requirements. The work experience is often a requirement of the academic program, with learning content and assessment developed based on standards and professional competencies as defined by the accrediting body. Other terms used to describe a practicum work experience include professional practice placement, clinical placement or professional placement (O'Shea, 2014).

An ***internship*** refers to work experience conducted under the guidance of an experienced professional. It is generally conducted over an extended period of time to allow for "deep learning and development as a professional" and "provides a realistic preview of what employment would be like in the sector" (O'Shea, 2014, p. 8).

Similar to an internship, ***co-operative education*** is work experience conducted under the guidance of an experienced professional for the purpose of developing professional and employability skills. It typically occurs as a part of a specialist co-op education program that "provides alternating full-time study with full-time employment." There is general exposure to different work settings and progression in work experience at multiple points across the length of the academic program (O'Shea, 2014, p. 8).

Consistent with this description, Co-operative Education and Work-Integrated Learning Canada (CEWIL Canada) defines a co-operative education program as "alternating academic terms and paid work terms ... work terms provide experience in a workplace setting related to the student's field of study." (CEWIL Canada, n.d.). For more information on defining co-operative education in Canada, please visit www.cewilcanada.ca. For additional information on defining co-operative education for the Ontario Ministry of Finance Co-operative Education Tax Credit, please visit this link.

A ***sandwich course*** is described as a work position in which the "student spends time engaged in the practice of their future profession, supervised by a senior professional" (O'Shea, 2014, p. 8). The sandwich course is often undertaken during a period away from study at the postsecondary institution.

Field experience or ***field education*** is a term used to describe work experience linked to the content of the academic program and designed for the purpose of preparation for professional practice. In this work experience, learning is achieved through supervision, support and assessment.

Finally, ***fieldwork*** includes experiences in which students are exposed to the work setting through participation in work activities, laboratories, site visits, study tours or field trips (O'Shea, 2014). For these activities, the experience is used to enhance learning of specific academic content. Fieldwork also includes ***work study*** placements and service industry placements (O'Shea, 2014), which may or may not be directly related to the student's area of study. These work experiences are designed to enhance students' general postsecondary education through concurrent work experience — often non-curricular and tied to general professional and/or personal development.

While the forms of structured work experience may differ slightly in their learning emphasis or structure, they all provide an opportunity for learning within a work setting as a part of a student's postsecondary education. In addition to differentiating between forms of structured work experience based on educational purpose, the design of the work experience conducted within each of these forms can be classified further into project-based and work-based experience.

Supported learning, relationship building and role modeling mentorship are recommended in order to facilitate optimal student learning and development.

Design of Work Experience: Project Implementation versus Work Participation

KEY TERMINOLOGY

Project implementation is when students design, deliver, manage or evaluate a specific project as a part of their work experience.

Work participation is when students partake in and contribute to the regular day-to-day activities of the workplace.

Along with the specific learning emphasis and structure, the design of the work experience itself should be considered. Workplace experience can be designed so that the student implements a specific project in the workplace organization and/or participates in regular workplace activities. With this said, it may be most appropriate to think of the design of the work experience along a continuum reflecting the various degrees to which students may partake in a combination of project implementation and work participation.

On one end of the continuum of work experience design is ***project implementation***. Project implementation is when students design, deliver, manage or evaluate a specific project as a part of their work experience. This work design draws on the pedagogy of project-based learning, which suggests that in order to ground the project theoretically and link to the students' academic learning, there should be a problem that drives real-world projects, and a project summary should be produced upon completion (Helle et al., 2006). Key learning emphases that may be tied to implementation projects include professional knowledge and skills, humanitarian values, critical thinking and enhanced understanding of the subject matter (Helle et al., 2006).

In general, a project may take two different forms: it can be research or applied. Consistent with this categorization, O'Shea (2014) distinguishes the research project from project development and management as two separate designs, each with its own benefits and limitations. The research project provides clear aims of the placement, and through the research itself can address specific organizational needs for evaluation. One of the limitations of the research project is that it "can dominate student awareness and keep them academically oriented, reducing incidental learning from [the] work environment" (O'Shea, 2014, p. 9). ***Project development and management*** also provides clear aims for the student and can be beneficial for fulfilling a practical need in the workplace, as well as enhancing students' practical and project management skills. The limitation of this work is that sole focus on one project can exclude other learning opportunities in the workplace. Also, students may only contribute to partial project development and management across their placement, making assessment and summaries of students' completion of a project more challenging.

On the other end of the continuum of work experience design is work participation. ***Work participation*** is when students partake in and contribute to the regular day-to-day activities of the workplace. According to O'Shea (2014), work participation is beneficial for students as "full focus on the experience of being in the workplace and developing professional capabilities allows for development of professional skills, knowledge, and acumen" (p. 9). One of the limitations of this design is that, compared to the project implementation experience, work participation can seem aimless, emphasizing the importance of defining clear workplace tasks. It also requires greater supervision "to ensure purposeful experience occurs" (O'Shea, 2014, p. 9).

Recognizing the benefits of both designs, many structured work experiences employ a combination of project implementation and work participation activities. As an example, a student teacher (teacher candidate) conducting a placement in an elementary school may participate in workplace activities by assisting their supervisor (associate teacher) in delivering learning activities and tutoring students in the classroom. As a part of the student's placement, they may also be asked to design and deliver a lesson plan or conduct an evaluation of the students' preferred learning styles. Importantly, the choice of work experience design should align with the learning emphasis and objectives of the WIL program, as well as the intended learning outcomes of the student.

★ | PROGRAM SPOTLIGHT

University of Victoria's Indigenous Research Hub

The University of Victoria Indigenous Resource Hub (IRH) was created in partnership with British Columbia's WIL Council and the University of British Columbia, Langara College, Okanagan College, Simon Fraser University, Thompson Rivers University and Kwantlen Polytechnic University. The IRH is aimed at reducing barriers to WIL experiences, broadening WIL access in rural BC, and contributing to labour-market readiness for Indigenous students in the province. Due to systemic and structural barriers embedded within postsecondary education institutions, Indigenous peoples have historically been excluded and tokenized (Cameron & Rexe, 2022; Nielsen et al., 2022). The University of Victoria's Indigenous Co-op and resources like the IRH aim to facilitate greater access to, and retention and success in, quality WIL placements.

The IRH is used in the classroom for career skill preparation; it empowers students to inquire about inclusive and equitable practices during the interview process and realize their capacity to do so. This method reflects the central focus of student needs within quality WIL, such as respecting and supporting cultural diversity and empowering the student voice (Ramji et al., 2021). Furthermore, the IRH offers virtual toolkits for students, employers and WIL practitioners to ensure culturally inclusive environments for Indigenous students.

The IRH also offers an example of equipping students with important information about their rights during the hiring process. For instance, regarding self-identification, the IRH educates students about employment equity, legal protections, safe self-identification on resumes and strategies for handling inappropriate job interview questions. Use of this resource is critical to respecting Indigenous knowledge and supporting the learning needs of Indigenous students (Cameron & Rexe, 2022). While the resource hub was designed for Indigenous students, its value has much wider applicability because of its special attention to developing more inclusive and culturally responsive environments. More broadly, the IRH illustrates the value of inclusive WIL programming framed by Indigenous models for all students (Jackson et al., 2023).

Learning Outcomes, Assessment and Plans

Learning Outcomes
Students will be able to...

Learning Assessment
As evidenced by...

Learning Plans
Achieved through engagement in...

Determining the learning emphasis of the WIL program is critical to ensuring educational quality. This can be thought of as a three-stage process, including the determination of: 1) learning outcomes; 2) learning assessment; and 3) learning plans. Clear articulation of these three stages will also ensure the educational quality of the other learning modes addressed. Starting with clearly defined learning outcomes informs the appropriate design of the structured work experience and directs the selection of placements for the WIL program. Distinct learning assessment measures and specific placement tasks and plans reinforce the learning outcomes and provide a foundation to ensure that all stakeholders (e.g., student, workplace supervisor, course instructor) share the same learning emphasis and are working towards the same learning goals. Together, the learning outcomes, assessment and plans ultimately shape the nature of the work experience by guiding what

placement tasks occur, where they occur, why, by what time, for what purpose and the resources, support and feedback required. In addition to guiding the concrete experience of the students in the workplace, the learning emphasis is also used to ground the reflection, integration of theory and practice, and application of new insights in the workplace, as discussed in the upcoming chapters. It is also critical for program evaluation purposes.

Determining learning outcomes involves completing the following statement: "After completing the work experience, students will be able to…." Determining learning assessment involves answering the question, "How will you measure whether students have successfully met the learning outcomes?" And learning plans involve determining, "How will the learning be achieved?"

Developing Learning Outcomes

The terms 'learning objectives' and 'learning outcomes' are often used interchangeably. With that said, they are generally distinguished from one another based on whether the focus is on the teacher and what is being taught (learning objectives) or on the learner and what the students will know, value or be able to do (learning outcomes). For the purpose of this guide, the term 'learning outcomes' is used to emphasize the student-centred focus of the structured work experience.

Learning outcomes are specific expectations of what students should know or be able to do as a result of completing the WIL experience (Ravitch, 2007). In WIL, the student learning outcomes are generally developed in partnership between the student, workplace supervisor and course instructor/program director (Holly, 2014). A WIL program would generally have pre-established learning outcomes set by the head of the WIL program (e.g., program director/co-ordinator) and associated institutional/curricular influences (e.g., institution, curriculum committee, faculty/department head). These pre-established learning outcomes consider the broad aims of the program, looking at what knowledge, skills and/or attitudes the program intends to teach. For example, 'Through this WIL program students will acquire professional skills, knowledge and practice in the field of aviation technology.' These broad learning outcomes are used to guide the form and design of the structured work experience, as well as partnership development between the academic institution and the worksite, and the matching between the student and the workplace supervisor. Once these partnerships are in place, the student, worksite supervisor and course instructor/program director work together to establish specific student learning outcomes for the work experience using the overarching intended learning outcomes of the WIL program.

A learning outcome is a statement that contains a verb (an action) and an object (usually a noun) and provides purpose to the learning (Anderson & Krathwohl, 2001; Goff et al., 2015). In order for the learning statement to outline specific expectations, try to avoid ill-defined terms that are open to interpretation (e.g., understand, learn, grasp). Instead, use terms that describe observable behaviours (e.g., demonstrate, articulate, describe) (Osgood & Richter, 2006).

Learning Outcomes	
Definition:	Specific expectations of what students should know or be able to do as a result of completing the WIL experience (Ravitch, 2007)
Set by:	In partnership between the student, workplace supervisor and course instructor/program director
How to:	• A learning outcome statement should contain a verb (an action) and an object (usually a noun) and provide purpose for the learning. • Consider audience (who?), behaviour (what?), conditions (how?), degree (how much?). • Try to avoid ill-defined terms that are open to interpretation (e.g., understand, learn, grasp). Instead, use terms that describe observable behaviours (e.g., demonstrate, articulate, describe) (Osgood & Richter, 2006).
Example:	"I [student] will demonstrate three of the five leadership criteria as stated in Kouzes and Posner's The Leadership Challenge as a result of participating in the work experience" (Hatch & Stenta, 2015).

Common models used to develop learning outcomes include Bloom's (1956) Taxonomy of Learning Domains and Fink's (2003) Taxonomy of Significant Learning. Both models outline different dimensions of learning and provide useful verbs and phrases for developing learning outcomes.

In Bloom's ***Taxonomy of Learning Domains***, learning outcomes are sorted into three groups, called domains:

- ***Cognitive domain:*** Intellectual or thinking skills.
- ***Psychomotor domain:*** Physical skills or the performance of actions.
- ***Affective domain:*** Attitudes and values.

Bloom's Taxonomy of Learning Domains

Useful Verbs for Developing Learning Outcomes

Cognitive	define, describe, recognize, explain, differentiate, apply, analyze, critique, develop, design
Psychomotor	see, hear, position, prepare, imitate, adjust, supply, adapt, organize, construct, create, organize, produce
Affective	accept, realize, believe, defend, prefer, value, pursue, favour, relate, internalize, judge, verify, view

Adapted from Bloom (1956).

In developing a learning outcome statement, complementing the verbs outlined within each of Bloom's domains of learning presented above, Higgs' (2011) ***Standards for Professional and Practice-based Education*** may be useful for filling in the object (e.g., noun) portion of the learning outcome statement. These standards include the graduate capabilities and attributes of professionalism and citizenship, professional judgement, communication and interactions, information literacy, professional competence and work readiness.

Higgs' Standards for Professional and Practice-based Education

Useful Nouns for Developing Learning Outcomes

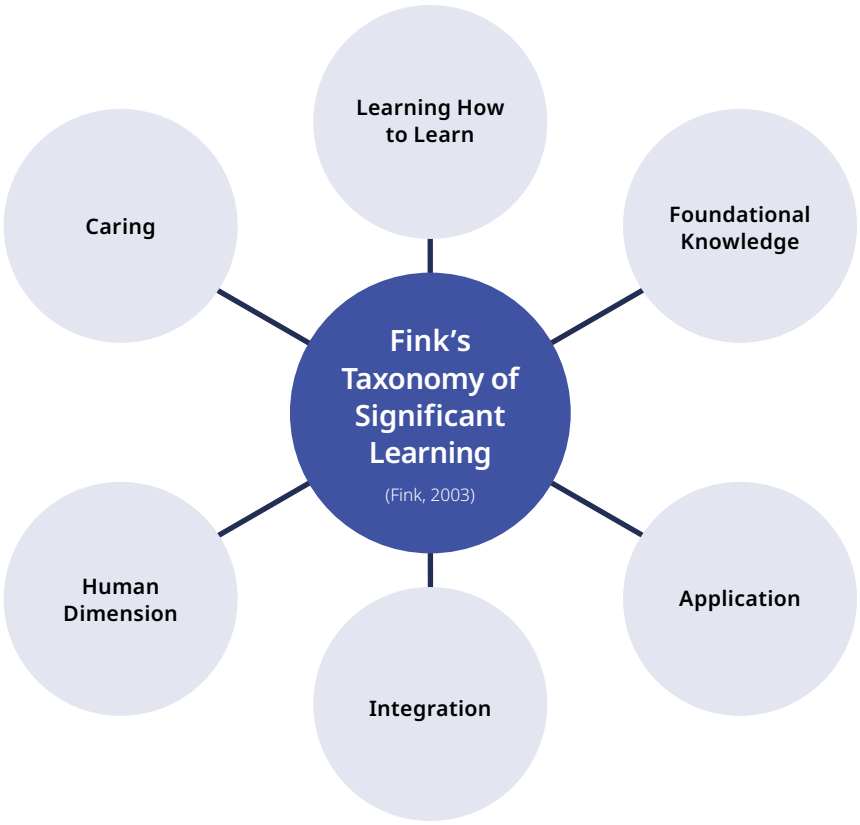
Professionalism and citizenship	accountability; trustworthiness; social inclusion; commitment to quality; global perspective of practice; financial responsibility; social and environmental sustainability; being a reflective practitioner and lifelong learner
Professional judgement	critical reflection; flexibility; adaptability; problem solving; creativity; ethical decision-making; lawful practice
Communication and interactions	professional communication; supportive communication; cultural competence; confidentiality; teamwork; collegiality; collaboration
Information literacy	accessing new information; judging information; synthesizing information from multiple sources; producing reports and multimedia presentations
Professional competence and work readiness	professional knowledge; professional skills; integration of theory and practice; knowledge of workplace/profession; competence in safe work practice; competence in professional knowledge and skills; initiative; independence

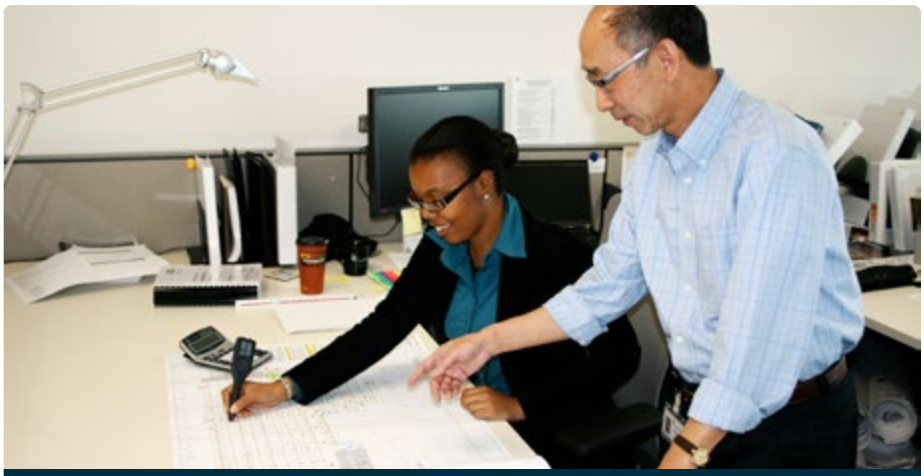
Adapted from Higgs (2011).

In addition to Bloom's three learning domains, Fink's ***Taxonomy of Significant Learning*** can be used to identify possible learning outcomes beyond knowledge acquisition and the cognitive domain of learning. In particular, it highlights the potential for the inclusion of learning outcomes around integration, caring and lifelong learning into the WIL program. Similar to Bloom's Taxonomy, examples of useful verbs for developing learning outcomes within each of Fink's six different kinds of learning are provided and are paired with useful nouns for completing the learning outcome statement (Osgood & Richter, 2006).

Fink's (2003) Taxonomy of Significant Learning outlines six different kinds of learning that can be considered when developing learning outcomes of a structured work experience. These include:

- ***Foundational knowledge:*** Remembering and understanding
- ***Application:*** Critical thinking, practical thinking, creativity, managing projects and practice skills
- ***Integration:*** Connecting ideas and experiences; interdisciplinary learning
- ***Human dimension:*** Leadership, citizenship, ethics and learning about one's self and others
- ***Caring:*** Feelings, interests, values and commitments
- ***Learning how to learn:*** Enhancing learning plans, inquiring and self-directed learning





Peer mentors have the ability to make students feel more relaxed, comfortable and confident in the work setting, are able to provide guidance and support and can encourage reflective interaction.

Developing Learning Outcomes Using Fink's Taxonomy of Significant Learning	
Foundational knowledge	• Verbs: explain, list, recognize, compare, contrast, define • Nouns: facts, concepts, theories, models, problems, results
Application	• Verbs: analyze, differentiate, interpret, advise, diagnose, suggest, adapt, design, implement, administer, coordinate, perform • Nouns: ideas, issues, plans, products, tasks, timelines, projects
Integration	• Verbs: associate, connect, relate, link • Nouns: ideas, perspectives, people, disciplines, contexts
Human dimension	• Verbs: advocate, cooperate, emphasize, express, influence, protect, resolve, model, support, unite • Nouns: ethics, morality, principles, attitudes, beliefs, and personal, social, cultural implications
Caring	• Verbs: agree to, commit to, get excited about, pledge, share, value • Nouns: attitudes, beliefs, feelings, interests, opinions, values
Learning how to learn	• Verbs: frame, develop, identify, inquire, research, assess • Nouns: learning, knowledge, skills, self-direction, inquiry, curiosity, desire for self-improvement, accountability

Adapted from Osgood and Richter (2006).

? | REFLECTION QUESTIONS

What do I want students to learn from their WIL experience?

- What key information, ideas or perspectives are important for students to know?
- What kinds of thinking, complex projects and skills is it important for students to be able to do/manage?
- What connections should students be able to recognize and make within and beyond the work-integrated learning experience?
- What should students learn about themselves and about interacting with others?
- What changes in students' feelings, interests and values are important?
- What should students learn about learning, engaging in inquiry and becoming self-directed?

Adapted from Osgood and Richter (2006) and Thakur (2021).

Other recommendations for developing learning outcomes for the structured work experience are to provide sufficient detail in the learning outcome statement by addressing the ***ABCDs of the learning outcomes*** (Heinrich et al., 2002):

- ***Audience:*** Who are the learners?
- ***Behaviour:*** What will they be able to think, feel, know or do?
- ***Condition:*** Under what circumstances/ context will the learning occur?
- ***Degree:*** How much will be accomplished, and to what level?

Consistent throughout the literature is the importance of forming a partnership between the student, workplace supervisor and course instructor when determining the learning outcomes (Fleming & Ferkins, 2005; Lu, 2007; Montrose, 2002; Rothman, 2007; Williams, 2004; Orrell et al., 2010). Montrose (2002) explains that there may be some resistance when asking students to set preliminary outcomes for their experience, when they do not necessarily have an idea of what learning will occur. "How do I know what I want to learn before I have the experience?" can be a typical response from students (Montrose, 2002). Given that learners may initially find goal generation and plan development to be challenging (Li & Burke, 2010), they may need some encouragement and guidance when specifying their outcomes. Schwiebert et al. (1991) found that students were more comfortable when they were able to select learning goals from a preselected list, as opposed to generating their own. Furthermore, learning outcomes that are important to the learner, as well as challenging and purposeful, communicate to the student that they are capable and valuable (Li et al., 2010). As a result, the student will be more inclined to commit to the organization (Coco, 2000; Ruiz, 2004a).

Factors that are associated with achieving progress with learning outcomes include but are not limited to: tracking progress on the achievement of learning goals; confidence in self-directed learning

abilities; interest in lifelong learning; having learning goals that align with learning needs; and having a designated career path (Royal College of Physicians and Surgeons of Canada, 2010). It is important to understand that some of these factors may be easier to manipulate than others, and in some cases the outcomes and tasks may need to be modified to increase chances of success (Royal College of Physicians and Surgeons of Canada, 2010).

Purposeful and clear expectations are important not only to enhance student learning, but also to avoid student vulnerability in a new workplace and avoid experiences such as, "75% of my internship involved working in the mail room. I don't feel that I learned a thing stuffing mailboxes" (Ruiz, 2004b, p. 53). When there is a lack of clear learning outcomes, students are at risk of having a negative WIL experience (Schneider & Stier, 2006).

Not only is it important to determine purposeful and clear expectations, but learning outcomes and tasks must be realistic for the workplace and the student (Breiter, 1993). This includes consideration of the placement hours, the student's background training and the available resources of the workplace and supervisor (Breiter, 1993).

RECOMMENDATIONS AND GUIDELINES

Factors to Consider when Constructing Learning Outcomes

- Inclusion of a verb (an action), object (usually a noun) and purpose for the learning in the learning outcome statement
- Level of credential
- Students who may be participating in multiple work terms
- Audience (who?), behaviour (what?), conditions (how?) and degree (how much?)
- Inclusion of the student, workplace supervisor and course instructor/program director in the development of the learning outcomes
- Outlines specific expectations for learning in the workplace
- Challenging and purposeful

Adapted from Anderson & Krathwohl (2001), Breiter (1993), Coco (2000), Heinrich et al. (2002), Li et al. (2010), Montrose (2002), Ravitch (2007) and Ruiz (2004b).

Constructing Learning Outcomes Guide

The following questions may be used to help WIL practitioners consider how to incorporate principles of equity, diversity and inclusion in their learning outcomes and curriculum design. These questions were developed at Toronto Metropolitan University (Horowitz et al., 2023) to help practitioners consider their aspiration, strengths, challenges, opportunities and results during the planning stages of WIL programming.

Aspirations

- Why does EDI matter?
  - How do we value EDI personally and at the program level?
  - What is the purpose of implementing change to advance EDI priorities?
- How do we hope students will feel in an equitable program?
- What significant changes do we envision for our program in the future?
  - How can we increase the diversity of perspectives? (e.g., in program content)
- What are the next steps for implementing EDI-centred curricular changes?
- What would meaningful EDI change in the program look like?

Constructing Learning Outcomes Guide (cont'd)

Strengths	• How does our program currently advance EDI in teaching and learning? • How does our program support equity-seeking groups? • How does our discipline highlight work by scholars from equity-seeking groups? • How does our program respond to concerns from equity-seeking groups or intersectionally identified individuals?
Challenges	• What are the obstacles/barriers preventing equity-seeking groups from achieving success in the program/discipline? • How are students empowered to define what success means to them and to their learning? • What factors prevent the uptake of change to program/disciplinary norms? (e.g., representation, content, methods, training, approaches) • What are the internal and external restraints on our vision for the program? • How are concerns or challenges reported, evaluated, addressed and communicated?

Opportunities	• How can the program demonstrate that progress is being made in EDI locally, nationally and globally?
	• How could we meaningfully increase equity, diversity and inclusion in our program?
	  • What groups are represented and underrepresented in our curricula, and among students, faculty and staff?
	  • How do we strive for equity and not just representation?
	• How do we promote our programs to potential first-year students and to underrepresented groups?
	• How does/could the program partner with ethno-cultural community groups/services?
	  • What are the opportunities to foster these relationships?
	• What campus resources support program revision/development? (e.g., libraries)
	• How can feedback from student voices be solicited and incorporated into the program?

Results	• Considering aspirations, strengths, challenges and opportunities, how will we know we are achieving our goals? • What kinds of changes do students, faculty and staff expect? • How will we establish milestones and measures of success? • What will accountability look like?

Source: Horowitz et al. (2023, pp. 7–8).

KEY TERMINOLOGY

Summative assessment is implemented at the culmination of a learning experience to evaluate outcomes of the experience.

Formative assessment is implemented throughout a learning opportunity with the purpose of recognizing challenges and improving upon them.

Integrated assessment merges summative and formative assessment tools to encourage learners to be conscious of their own learning.

(Ash & Clayton, 2009)

Assessment of Learning Outcomes

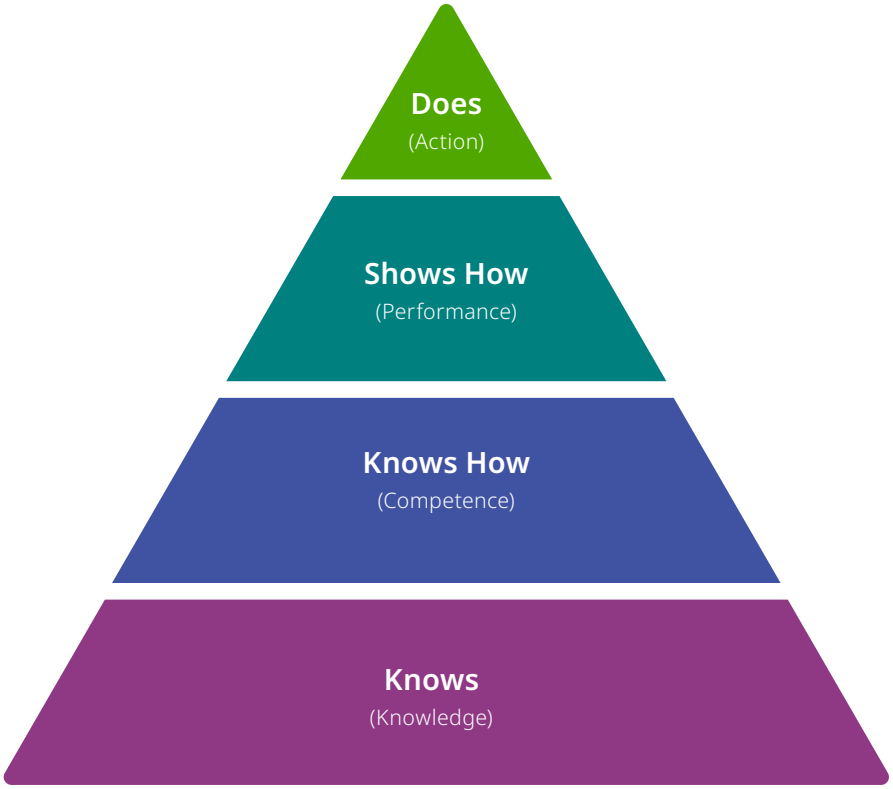
Learning assessment is the key to gauging student learning and ensuring educational integrity in the structured work experience (Young & Baker, 2004). A well-designed assessment plan allows students to be reflective, provides them with opportunities to be active in the assessment process (Young & Baker, 2004) and fosters student learning (Webber, 2012). According to Connaughton et al. (2014), "WIL learning assessment should be linked to educational learning outcomes and experiences with industry to determine discipline-specific competencies" (p. 31). Students, workplace supervisors, course instructors and the employer organization can all have a role in the assessment of student learning (Montrose, 2002; Reddan, 2011; Stagnitti et al., 2010; von Treuer et al., 2011).

While there is much debate about the recording of assessment measures, for example the use of pass/fail grades instead of letter grades (Cook et al., 2004), it is widely recognized that the primary objective of assessment activities is to assess the learning outcomes achieved. In order to ensure alignment of the learning assessment with the learning goals of the student, workplace supervisor and course instructor, it is recommended that assessment activities be discussed when developing the learning outcomes and be built into student learning plans (Montrose, 2002).

There are three time-based techniques for learning assessment: summative, formative and integrative. ***Summative assessment*** is implemented at the culmination of a learning experience to evaluate outcomes of the experience. ***Formative assessment*** is implemented throughout a learning opportunity with the purpose of recognizing challenges and improving upon them. And ***integrated assessment*** merges summative and formative assessment tools to encourage learners to be conscious of their own learning (Ash & Clayton, 2009).

In designing learning assessments, one commonly used assessment model is Miller's (1990) ***Triangle/Model of Clinical Competence***. This is a conceptual model that is particularly popular in the learning assessment of students in the health sciences, but could be applied to any structured work experience. Miller's Triangle identifies the components of clinical competence as:

- ***Knowledge*** (knows)
- ***Competence*** (knows how)
- ***Performance*** (shows how)
- ***Action*** (does)



Miller's Triangle/ Model of Clinical Competence

(Miller, 1990)

? | REFLECTION QUESTIONS

How can the development and description of the broader learning outcomes of the WIL program be improved?

- What is the learning outcomes statement of the WIL program?
- Are the learning outcomes of the program clearly described?
- Are workplace supervisors/students aware of the intended learning outcomes of the program?
- How can we incorporate at least one of the considerations above to enhance the description of the learning outcomes of the WIL program?

How can students' development of learning outcomes be enhanced?

- Do the students develop specific learning outcome statements for their work experience?
- How can we facilitate the co-development of learning outcomes with the student, workplace supervisor and course instructor/ program director?
- How can we incorporate at least one of the considerations above to enhance the students' descriptions of their learning outcomes for the structured work experience?

Think of the design of the work experience along a continuum reflecting the various degrees to which students may partake in a combination of project implementation and work participation.

Biggs and Collis' (1982, 1989) ***Structure of Learning Outcomes (SOLO) Taxonomy*** is another broad assessment tool used to gauge the complexity of one's knowledge with regards to predetermined learning outcomes (Boulton-Lewis, 1995). The five levels are as follows:

- ***Prestructural:*** The learner has minimal understanding of the knowledge required for a particular learning experience.
- ***Unistructural:*** The learner understands a single component of the learning experience (e.g., theoretical concept related to course content).
- ***Multistructural:*** The learner understands multiple but independent components of the learning experience (e.g., multiple theoretical concepts related to course content).
- ***Relational:*** The learner understands and integrates multiple components of the learning experience to build a deeper network of knowledge (e.g., personalizing and integrating theoretical concepts to be relevant to experiences).
- ***Extended abstract:*** The learner applies or tests their knowledge in a new environment (e.g., learner uses theoretical concept in experiential learning setting).

In addition to the types and models of learning assessment, a number of assessment activities are commonly used to evaluate student learning outcomes and can be applied to the assessment of learning in the structured work experience, including written and practical examinations, written assignments and oral presentations. The students may also collect a portfolio of evidence that focuses on the stated learning outcomes. Student learning may be assessed through direct observation. Additional assessment measures include the use of concept maps and capstone projects (Connaughton et al., 2014; Fink, 2003; Montrose, 2002; Reddan, 2011).

Connaughton et al. (2014) further elaborate on various ways in which WIL assessment may be supported with technology through the use of ePortfolio, online platforms (e.g., Blackboard, D2L), virtual simulations and webinar software (e.g., GoTo Meeting). Chapter 3 includes more specific information on the inclusion and assessment of reflection exercises.

A number of common challenges exist for assuring reliability in the assessment of student learning outcomes in a WIL program, particularly when including assessment from other stakeholders (e.g., workplace supervisor, clients, peers). These challenges include: ***inter-assessor variations***, caused when different workplace supervisors apply different grading standards; ***intra-assessor variations***, when not all students are assessed against the same criteria; and case specificity, which occurs when students have a specific situation occur that impacts their performance at the worksite (Connaughton et al., 2014).

In order to address these challenges, Connaughton et al. (2014) recommend "staff training to ensure standardised interpretation and application of assessment tools" (p. 31). They also suggest outlining clear performance criteria within the assessment, using global rating scales to reflect overall performance, using multiple assessors and performing multiple assessments across the work experience (Connaughton et al., 2014; Van der Vleuten & Verhoeven, 2013).

RECOMMENDATIONS AND GUIDELINES

Factors to Consider when Assessing Learning Outcomes

- Provide training to ensure standardized interpretation of assessment measures.
- Outline clear performance criteria.
- Use global rating scales to reflect overall performance.
- Use multiple assessors.
- Assess student performance at multiple time periods across the work experience.

Adapted from Connaughton et al. (2014).

Assessment Activities	
Examinations	Written exams, practice-based exams
Written assignments	Written portfolios, analytic papers, reflection essays/writing activities, case studies, journals, progress reports, article/reading review
Oral presentations	Poster presentations, PowerPoint presentations, individual/group interview, online discussion group, video diaries
Portfolios	Photography portfolios, critical incident analysis, reflective writings, performance 'evidence'
Direct observation	Workplace performance assessment, peer assessment, simulation, demonstration, task-oriented assessment
Other	Concept maps, capstone projects

Adapted from Connaughton et al., (2014), Fink (2003), Montrose (2002) and Reddan (2011).

★ | **PROGRAM SPOTLIGHT**

Simon Fraser University and ACE-WIL

Funded by ACE-WIL, Simon Fraser University created an online professional development course for WIL practitioners, called ACE-WIL Practitioner's Professional Development: Supporting the WIL Student Journey. The three modules focus on reflection and self-exploration as a WIL practitioner, WIL theories and models that underlie principles of equity and inclusion and real-life scenarios that allow practitioners to apply their knowledge to their experiential learning programs in an accessible, engaging and inclusive way. The course offers practitioners practical examples that promote the value of WIL through "deep learning strategies" (Drysdale & McBeath, 2018, p. 485). Additionally, many elements of the course encourage practitioners to consider how to integrate a wide range of inclusive principles into their own WIL context, such as reflective journal prompts to consider inclusive design considerations, literature on the importance of individual, interpersonal and group lenses. The modules highlight the importance of WIL practitioners understanding their own and others' intersectional identities (Dessel & Corvidae, 2016) and dedicating time to reflect on how to improve their programming.

This WIL practitioner course dedicates one module to inclusive design considerations, an important aspect of WIL program development. Concepts related to intersectionality, including Critical Race Theory, decolonization, gender diversity, anti-racism and accessibility are covered in depth to highlight program design considerations that are equitable and inclusive (see specific inclusive design elements on the next page). In addition, the course highlights evaluation and assessment strategies such as how to conduct a needs assessment, the importance of collaboration and consultation and the value of being open to feedback. These elements align with literature on quality and equitable WIL, which emphasize the importance of "specialized WIL student supports" for improved accessibility (Thakur, 2021, p. 5), challenging traditional ideas about accessibility (Bulk et al., 2023) and becoming more informed on the intersectional needs of WIL students (Mackaway & Chalkley, 2021).

Inclusive Elements for Curriculum Design

Understand the Lens of Your Identity

Understanding your own values, norms and beliefs and how they impact your approach to curriculum design takes time. The lens of identity includes aspects like: your race, life experiences, where you grew up, your age, your gender, your class, where your parents are from, who you are attracted to, what you do for work, etc., and are tangled together in a web that informs who you are and how other people perceive you.

Working towards inclusion means that you will consider the ways you have access to power through the ways aspects of your identity are privileged in society. Then intentionally taking steps to ensure your design breaks down barriers and ways people are excluded.

The Learners' Contexts

Understanding who the students are and the various influences they might have on their learning contexts helps create a more inclusive learning experience.

One way to better understand your students is to send an informal needs assessment asking about learning preferences, accommodation requirements, and/or if there is anything they wish to share.

Intersectionality

Intersectionality is a metaphor for the ways that multiple forms of inequality sometimes compound and create obstacles that are not understood through a singular lens of identity or analysis. For example a Black woman is more likely to experience discrimination in the form of racism and sexism, whereas a Black man will experience racism.

When designing curriculum elements it can be tempting to consider singular social categories, and treat race, ability, gender, class and so on as stand alone issues. However, as Audre Lorde once said "there is no such thing as a single issue struggle, because we do not live single issue lives."

Inclusive Design Takes Time

Given the need to work on understanding bias, understanding the learners' context and working with a committee, team or community means that you want to budget in extra time for your design project.

Also, consider the curriculum as living, be willing to always receive and integrate feedback. This way it can be ok to pilot a less than perfect iteration if you are taking the position that your work is always in progress.

References:

Crenshaw, K. (2018). What is intersectionality? National Association of Independent Schools. https://www.youtube.com/watch?v=ViDtnfQ9FHc

Lorde, A. (1982). *Sister Outsider: Essays & Speeches by Audre Lorde*. Crossing Press.

Source: Simon Fraser University

GIVE IT A TRY!

Sample Assessment Tool:
Workplace Supervisor Assessment of Student Placement Performance

Instructions

Please complete this *Assessment of Student Placement Performance* and hold a formal meeting to discuss your feedback with the student.

Overall Assessment

1. Did the student complete the minimum hours requirement?
   Please indicate the number of placement hours completed: _____

2. In your opinion, what was the general level of performance of the student in their placement?

   ○ Excellent ○ Very good ○ Good ○ Below average ○ Poor

3. Indicate this student's top three strengths (required):

   -
   -
   -

4. Indicate three areas in which this student could improve (required):

   -
   -
   -

The four categories for placement performance assessment and the component criteria that you will consider in each category are outlined below. For each component of each category, select the number that best represents the student's performance.

Not applicable N.A.	**Excellent** 5 marks	**Very good** 4 marks	**Good** 3 marks	**Below average** 2 marks	**Poor** 1 marks
This particular component does not apply to the student's placement position.	Student is very proficient, highly skilled and motivated, and performance can be improved only slightly.	Student's skill in this area is well developed, with some room for improvement.	Performance is satisfactory; student is capable in this area, has a positive attitude and self-improvement is evident.	Level of competency is below that required; greater effort and/or training is needed.	Level of competency is very low; attitude and motivation for improvement are not exhibited.

Please calculate the final category mark (out of 5) by averaging the scores of all the items included in the category. Record your assessments in the spaces provided and indicate a total performance mark out of 20.

GIVE IT A TRY!

Sample Assessment Tool (cont'd)

Category I: Responsibility for Own Learning

Rate your student on each item below by selecting the number that corresponds to the assessment scale. Please include comments and examples to support your assessment.

	N.A.	Excellent	Very good	Good	Below average	Poor
Motivation and enthusiasm	N.A.	5	4	3	2	1
Motivation and eagerness to learn and to optimize the learning experience; Interest and enthusiasm in approaching work tasks; Degree to which the student takes responsibility for their learning objectives						
Work habits	N.A.	5	4	3	2	1
Reliability in preparing for and completing tasks; Regularity of attendance and punctuality; Diligence in following instructions; Adherence to good safety practices, and appropriateness of appearance and presentation; Responsibility in meeting commitments made to the mentor and placement organization						
Initiative/Self-starting ability	N.A.	5	4	3	2	1
Initiative to accept responsibility, to seek new challenges, assignments and projects, to increase their level of knowledge and skill, and to assume ownership of their role in the workplace; Initiative in ongoing communication and collaboration with mentor (e.g., initiating placement performance evaluation(s) in a timely and effective manner)						
Openness to suggestions/criticism	N.A.	5	4	3	2	1
Student's ability to learn from others, to accept suggestions and criticism positively, and to modify behaviour in response to feedback						

General comments regarding student's taking responsibility for their own learning:

Average mark on "Responsibility for Own Learning": _____ /5

GIVE IT A TRY!

Sample Assessment Tool (cont'd)

Category II: Competence in Placement Activities

Rate your student on each item below by selecting the number that corresponds to the evaluation scale. Please include comments and examples to support your assessment.

	N.A.	Excellent	Very good	Good	Below average	Poor
Knowledge base	N.A.	5	4	3	2	1
Degree to which student demonstrates and uses relevant knowledge and skills in completing placement activities; Student's understanding of their duties and role in their placement position						
Organization and planning	N.A.	5	4	3	2	1
Degree of organization and planning for placement activities; Ability to manage time on tasks and complete work in a timely manner						
Communication skills	N.A.	5	4	3	2	1
Ability to communicate information and ideas in both writing and speaking in a manner that is clear, grammatically correct and appropriate to the audience; Ability to express own ideas and opinions openly using language that demonstrates respect for people and their differences; Ability to listen to others' ideas and opinions with an open mind						
Quality of work	N.A.	5	4	3	2	1
Quality and effectiveness of student's performance in carrying out assigned tasks						

General comments regarding student's competence in placement activities:

Average mark on "Competence in Placement Activities": _____ /5

GIVE IT A TRY!

Sample Assessment Tool (cont'd)

Category III: Critical Thinking

Rate your student on each item below by selecting the number that corresponds to the evaluation scale. Please include comment and examples to support your assessment.

	N.A.	Excellent	Very good	Good	Below average	Poor
Creativity	N.A.	5	4	3	2	1
Level of creativity and innovation as demonstrated; Ability to seek new and better ways of doing things						
Adaptability	N.A.	5	4	3	2	1
Ability to learn from the placement experience, to react to unexpected circumstances, to be open to new ideas and to appreciate, accept and learn from differences in the experiences of others						
Self-evaluation	N.A.	5	4	3	2	1
Ability to accurately assess their own level of effectiveness and competence in practice and to identify strengths and learning needs						
Appreciation of ideas	N.A.	5	4	3	2	1
Student's ability to analyze work situations, make appropriate decisions and act on them; Degree to which the student can evaluate and make constructive suggestions regarding work and your organization						

General comments regarding student's judgement and critical thinking skills:

Average mark on "Critical Thinking": _____ /5

GIVE IT A TRY!

Sample Assessment Tool (cont'd)

Category IV: Relations in the Workplace

Rate your student on each item below by selecting the number that corresponds to the evaluation scale. Please include comments and examples to support your assessment.

	N.A.	Excellent	Very good	Good	Below average	Poor
Interpersonal and intercultural skills	N.A.	5	4	3	2	1
Degree to which student has effective and positive relationships with personnel at all levels of your organization, such that interactions are productive and sensitive to the needs of others; Degree to which student shows consideration and respect to others and maintains purposeful working relationships that respect diversity (of culture, beliefs, sexual orientation etc.); Ability of student to cooperate and work effectively with others						
Understanding of workplace	N.A.	5	4	3	2	1
Student's effort to increase their knowledge of the organization, its mission, policies, rules and regulations in relation to the work performed; Degree to which student understands priorities and can determine what shall be done, by whom, where or how						

General comments regarding student's relations in the workplace:

Average mark on "Relations in the Workplace": _____ /5

Category	Mark
Category I: Responsibility for Own Learning	/5
Category II: Competence in Placement Activities	/5
Category III: Critical Thinking	/5
Category IV: Relations in the Workplace	/5
Total	/20

Total mark on student placement performance: _____ /20

The student, worksite supervisor and course instructor/ program director work together to develop specific learning outcomes for the student's work experience.

Learning Plans

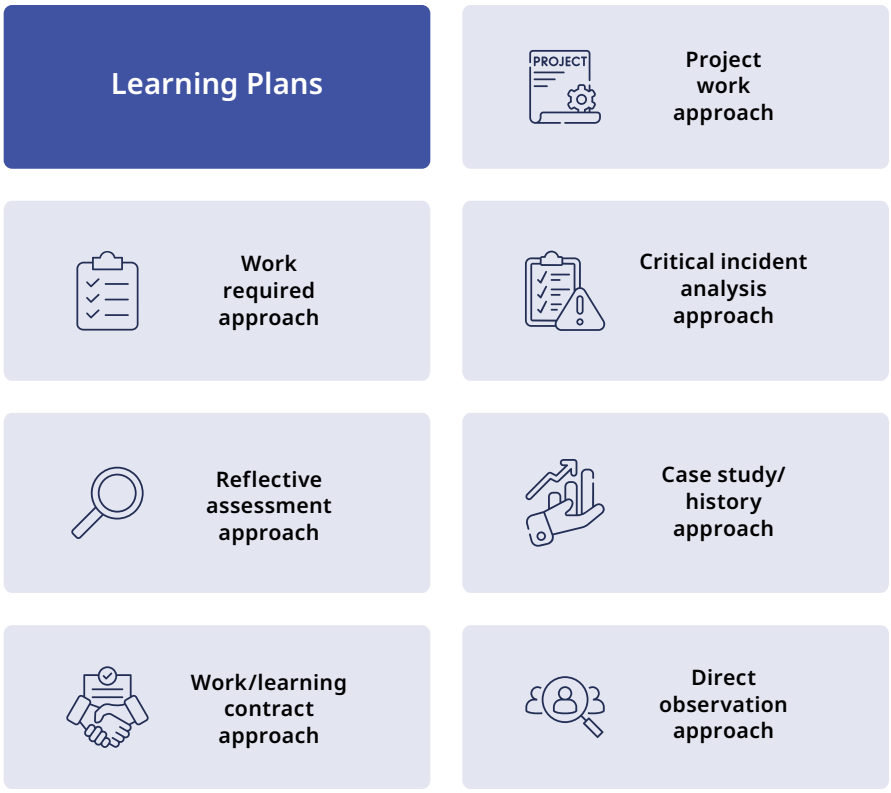
Once the learning outcomes and assessment measures have been established, it is important to set up a learning plan. A learning plan, or learning contract, is the collection of tasks or activities that will assist the learner in meeting their learning outcomes. A learning plan is generally developed in partnership between the student and the workplace supervisor and takes into consideration the specific contextual details of the worksite and particular supports or accommodations the student may require. Having a learning plan in place can help alleviate misunderstandings among involved parties and lead the student toward a positive educational experience (Montrose, 2002; Martin & Hughes, 2009). The use of an individualized learning plan has also been shown to enhance self-directed lifelong learning skills in learners (Li & Burke, 2010).

In translating learning outcomes into specific workplace tasks, Cooper et al. (2010) suggest seven different approaches. Each of these approaches parallels the design of the work experience on the continuum from work participation to project implementation. They reflect different ways in which learning outcomes may be achieved in the workplace, ranging from specific workplace tasks to observation and reflection tasks and project-based activities. Learning plans can draw upon one or more approaches that may be used to actualize student learning outcomes in the workplace, including:

- ***The work required approach:*** Students work through an agreed-upon set of tasks while in the workplace.
- ***The reflective assessment approach:*** Students observe day-to-day practice in the workplace and reflect on decisions made. This approach is often accompanied by reflection exercises such as a reflective diary.
- ***The work/learning contract approach:*** In alignment with learning outcomes, students negotiate a set of workplace responsibilities with their supervisor to be achieved in a defined time frame.

- ***The project work approach:*** Students are responsible for completing a specific project within a set time frame, concluding with a written report.
- ***The critical incident analysis approach:*** Students record verbatim an incident in which they were involved. They discuss their response with their learning guide and evaluate how their actions could have been more effective.
- ***The case study/history approach:*** Students provide a detailed study of an individual, feature or event in the workplace, with a plan for change or improvement.
- ***The direct observation approach:*** Students are observed over time in the workplace. A record is maintained of observers' estimations of their performance in relation to specific learning outcomes (Cooper et al., 2010)

In general, learning plans should include: learning outcomes that are clear, measurable and realistic; a list of specific tasks that will be used to achieve the learning outcomes; the method and time frame for assessment of these outcomes; monitoring and assessment methods; and any applicable guidelines from the host institution or program (Li & Burke, 2010; Martin & Hughes, 2009; Montrose, 2002).



Learning Plans	
Definition:	Tasks or activities that will assist the learner to meet the learning outcomes
Set by:	A partnership between the student and workplace supervisor
How to:	✓ Develop tasks/activities that will assist the learner to meet each learning outcome. ✓ Determine the evidence that will demonstrate an outcome is successful. ✓ Create and continually modify tasks and plans so that they are realistic and based on current context and available resources. ✓ Develop a timeline for achieving tasks or a way to incorporate tasks into daily routines (Li et al., 2010; Martin & Hughes, 2009).
Example:	• Participate in project meetings. • Observe staff members and gain a better understanding of what is involved in project conception and development. • Shadow designers and have the opportunity to ask questions regarding procedures. • Complete the following design-related tasks … (Sides & Mrvica, 2007).

RECOMMENDATIONS AND GUIDELINES

Information to Include in Learning Plans

- Learning outcomes that are clear, measurable and realistic.
- Specific tasks that will be used to achieve the learning outcomes.
- Method and time frame for assessment of learning outcomes.
- Monitoring and assessment methods.
- Any applicable guidelines from the host institution or program.

Adapted from Li and Burke (2010), Martin and Hughes (2009) and Montrose (2002).

PROGRAM SPOTLIGHT

University of British Columbia's Arts Amplifier Initiative

Through their Faculty of Arts, the University of British Columbia (UBC) launched the Arts Amplifier Initiative in 2020 to provide master's students, PhD students and postdoctoral fellows with career support through a range of WIL experiences. Given that over 70% of graduate students from the Faculty of Arts self-identify as members of HPSM groups, UBC's team was intent on creating accessible pathways to the labour market to reduce barriers for these groups and break down the gatekeeping and elitism often embedded in academic programs (Hora et al., 2020). To address discriminatory hiring practices, which have historically impacted racialized and other marginalized groups (Banerjee et al., 2018), Arts Amplifier practitioners facilitated 40-minute virtual Q&A sessions between employers and students prior to the employer's job posting. This practice provided students the opportunity to understand aspects of the job that may not be clear in a job posting, such as work flexibility and accommodations, and learn how to articulate their skills and strengths in a future job application. It also allowed employers to better understand student needs and offered them the opportunity to review their requirements before officially posting. By adopting a student-centred approach, the Arts Amplifier Initiative is reflective of a "proactive, sustainable, and collaborative approach" that ensures quality WIL experiences for all students (Jackson et al., 2023, p. 4).

While the forms of structured work experience may differ slightly in their learning emphasis or structure, they all provide an opportunity for learning within a work setting as a part of a student's postsecondary education.

GIVE IT A TRY!

Sample Learning Plan

Learning Outcome	Assessment Criteria	Placement Tasks	Strategies and Resources
What do I intend to learn?	How will my goal be assessed?	How can I best learn this? What learning activities will I perform?	What resources are available?

Facilitating a Learning Environment

"The enhancement of experiential learning in higher education can be achieved through the creation of learning spaces that promote growth-producing experiences for learners" (Kolb & Kolb, 2005, p. 205).

Learning Spaces

Another factor to consider in enhancing the educational quality of the WIL experience is the quality of the learning environment in which the experience occurs. A positive learning environment not only refers to the practical experience with the subject matter, but also includes the total life space of the learner (Kolb & Kolb, 2005). The learner's physical and social environment, and the quality of relationships within those environments, impact students' learning experiences (Kolb & Kolb, 2005). Authors note the importance of making space for different factors that foster learning in experiential education, including the development of expertise through repeated practice, active reflection, connecting experience to interests and emotions, allowing the student to take responsibility and direction over their own learning and constructive communication (Kolb & Kolb, 2005).

Factors Contributing to Positive Learning Spaces

(Kolb & Kolb, 2005)

Development of Expertise	Repeated practice in areas that are related to the learner's goal
Action and Reflection	Active expression, testing, reflection of knowledge and learning
Feeling and Thinking	Connecting emotions to knowledge; learning what is most interesting to an individual
Learners to Take Charge of Their Own Learning	Allows the learner to take direction and responsibility for their own learning; self-directed learning
Inside Out Learning	Linking educational experiences to the learner's interests stimulates intrinsic motivation and learning effectiveness
Communication	Conversation promotes ongoing reflection

★ | PROGRAM SPOTLIGHT

World Education Services Immigrant Youth Internship Program

Catering specifically to students who identify as first- and second-generation immigrants, refugees and international learners, the World Education Services (WES) immigrant youth internship provides a paid, three-month WIL experience for summer students. Interns contribute to work focused on government and policy initiatives related to immigration and other projects within WES' Social Impact Division. The virtual nature of WES' internship program provides a unique and accessible WIL experience. In a post-COVID-19 world, what constitutes a quality WIL experience (and an authentic work experience more broadly) has changed (Chatoor, 2023). For instance, WIL postings that primarily serve urban areas have been a barrier to quality WIL access for students in rural areas, particularly for Indigenous students based in remote communities (Itano-Boase et al., 2021; Tunny et al., 2022). Thus, new models of WIL that include remote placements not only demonstrate the adaptability of WIL programming (Mackaway & Chalkley, 2021) but also help to "maximize students' first-hand experiences practicing, observing, analyzing and immersing themselves in diverse workspaces" (Dean & Campbell, 2020, p. 362). However, virtual placements can present a unique challenge for WIL students by hindering meaningful connection with colleagues (Chatoor, 2023).

WES connects interns with mentors, offers various opportunities for virtual socialization with peers and colleagues, and fosters a more meaningful professional and social experience for interns. WES has used its networks to promote this opportunity and increase awareness among immigrant youth and partners in the sector. WES promotes their work through immigrant- and youth-led career development networks, connects with equity-centered youth advocacy networks directly, and publishes blogposts written by previous interns on their experiences in the program. WES' approaches ensure greater access to paid work opportunities for a range of students, highlight student voices to reflect the value of their WIL experience and expand the geographical range for quality WIL opportunities.

Mentorship

Related to the creation of positive learning spaces, quality mentorship is an essential component of the structured work experience for students (Jones, 2007). The term 'mentor' derives from the wise and learned person in Homer's *Odyssey*. In this poem, when Odysseus left for the Trojan War, he trusted the guidance and education of his son to his friend Mentor (Galvez-Hjornevik, 1986; Gray & Gray, 1985; Homer, 1999; Merriam, 1983). A mentor is now referred to as a person who guides, nurtures and models (Koskela & Ganser, 1998).

In a WIL setting, mentors open the avenue for practical instruction after the student has received theoretical information from the instructors at the institution (Cornell, 2003). Mentors have the ability to encourage teamwork, foster positive attitudes about the professional setting, facilitate reflection, encourage risk taking and support the transition from theory to practice (Fish, 1995; Lu, 2007). They play a critical role in providing positive feedback, social integration and shared knowledge of expertise in the field with students (Diambra et al., 2004). When effective, both students and mentors benefit from the mentoring process (Arnold, 2002; Lu, 2007).

Based on a study conducted with undergraduate students and their academic advisors, Williamson (2014) outlines seven mentor qualities or behaviours that facilitate a positive student–mentor relationship, including: approachable/personable, accessible, knowledgeable about topic, effective communicator, encourages/cares for students, good listener and confidence.

Recognizing the benefits of quality mentorship for student learning experiences, previous research has highlighted the importance of mentor training prior to experiential learning experiences (Giebelhaus & Bowman, 2002). Examples of mentor training programs include placement orientation (Giebelhaus & Bowman, 2002), a full-semester course on clinical supervision (Kent, 2001), a semester-long workshop on how to give feedback (Dever, 2003) and ongoing mentor classes throughout the student teaching experience (Wyatt et al., 1999).

Based on research conducted on mentorship among nursing students and midwives, Linford and Marshall (2014) outline three main areas of mentorship:

- ***Supported learning:*** In supported learning, mentors think about areas for student learning, help the student plan learning activities, provide probing questions to understand the student's level of learning and deliver constructive feedback (Linford & Marshall, 2014).
- ***Relationship building:*** In relationship building, mentors facilitate learning by being patient, approachable and understanding, and satisfying the student's need to feel valued and safe. In relationship-building mentorship, the mentor invests time in the placement and develops a student's confidence and competence as a practitioner by building a relationship with the student (Linford & Marshall, 2014).

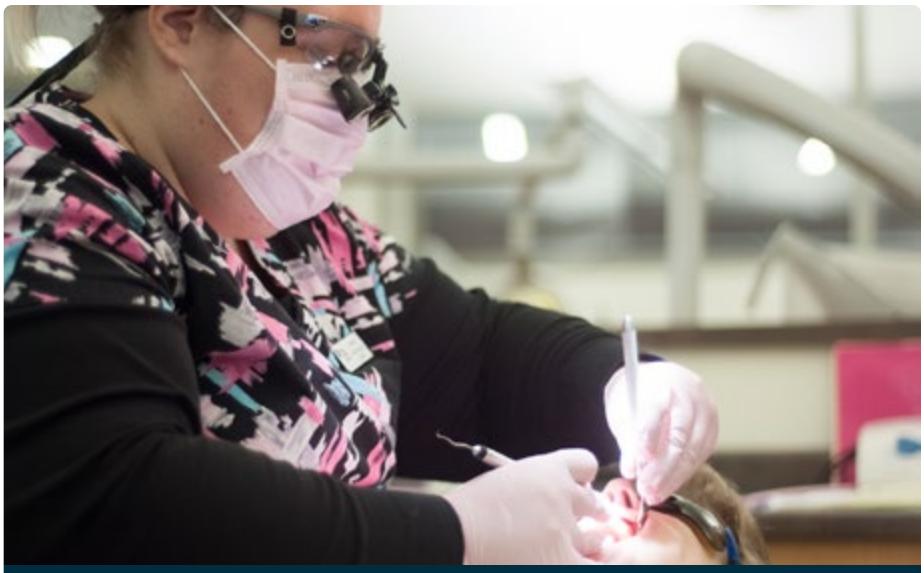
- ***Role modeling:*** In role modeling, mentors portray values and behaviours in the workplace that are observed and emulated, thus potentially moulding how the student learns and develops (Linford & Marshall, 2014).

Previous research suggests that students regard relationship building as the most important factor for facilitating a positive learning environment (Cahill, 1996), but all three areas of mentorship are recommended in order to facilitate optimal student learning and development in the WIL experience.

Mentor Qualities in a Positive Student–Mentor Relationship

- Approachable/personable
- Accessible
- Knowledgeable about topic
- Effective communicator
- Encourages/cares for students
- Good listener
- Confident

Adapted from Williamson (2014).



Clear articulation of student learning outcomes, assessment and plans has the greatest impact on the educational quality of the structured work experience.

GIVE IT A TRY!

Mentoring Mentors:
Reflection Questions to Check In on Your Mentoring

Questions to ask yourself throughout the student WIL activity/experience:

- Am I aware of the learning goals of the student?
- Have these changed over the course of the work experience?
- Do we have a plan in place to achieve these goals?
- Are we following the plan?
- Has the student learned new techniques or skills recently?
- Are there any topics or skills that I think the student needs to improve upon?
- Am I providing my mentee with ongoing constructive feedback on their performance?
- Am I supportive, approachable and available to the student?
- Should I encourage the student to ask more questions? Should I ask the student more questions?
- Does the student feel valued and safe in the work environment?
- Am I modeling the professional values and behaviours that would align with the student's learning goals?
- Is the student being challenged with a variety of tasks and increasing responsibilities over the work experience?
- What is the next level of learning opportunities I can provide to challenge my mentee?

GIVE IT A TRY!

Student–Mentor Communication Tips

Communication Tips for Students

- Think about your audience, as different people respond to different styles of communication.
- Challenge yourself and seek opportunities to talk in front of people and make formal presentations.
- Practice before making a formal presentation.
- Ask for help if you require assistance or don't understand.
- Proofread documents for spelling, grammar and format.

Adapted from Martin and Hughes (2009).

Communication Tips for Mentors

- Talk to the student about their comfort level with different methods of communication.
- Provide frequent and varied communication opportunities.
- Explain the culture in your workplace (e.g., typically contact is via email, via telephone or in person).
- Help the student understand the tone of communication required by different stakeholders.
- Highlight to the student which styles of communication are effective in different situations.
- Review important written documents so that the student knows where improvement is required.
- Demand high standards from the student, particularly around external communication to clients.
- Provide regular feedback to students on the progress they are making.

Adapted from Martin and Hughes (2009).

Points for Mentors to Consider when Providing Feedback

- Encourage the student to evaluate their progress.
- Maintain confidentiality.
- Be honest and constructive (beware of being destructive).
- Remain calm and objective.
- Ask for feedback from others who have worked with the student.
- Refer to specific actions, not personal traits.
- Allow time for the student to process the information.
- Check understanding and clarify meaning.
- Assist the student in setting small achievable goals to reduce anxiety.
- Use positive feedback to reinforce learned knowledge, values and skills.
- Vary your style of feedback to suit individual students.
- Contact the WIL program co-ordinator (at the academic institution) if there are concerns.
- Document the feedback provided.

Adapted from Linford and Marshall (2014) and Penfold (2007).

Another way to facilitate a positive learning environment is through the involvement of peer mentors or peer coaches. Peer mentors often make students feel more relaxed, comfortable and confident in the work setting, and can provide guidance, support and reflective interaction (Anderson et al., 1994; Gemmell, 2003; Hasbrouck, 1997; Kurtts et al., 2000; Lu, 2007). While this may not be viable for all structured work experiences, there is research to support the positive benefits that peer mentors have on students' experiential learning experiences (Hudson et al., 1994; Joyce & Showers, 1980; Pierce & Miller, 1994). Peer mentors should not replace workplace mentors but can act as additional support for the student during the WIL experience (Grierson et al., 2011; Hudson et al., 1994).

Consideration for Students with a Disability

Given that the postsecondary student population is increasingly diverse and the number of students with a disability is increasing, it is important to consider diverse learning styles in WIL experiences (Bulk et al., 2023; Cukier et al., 2018; Jackson et al., 2023; Ramji et al., 2021; Severance & Starr, 2011). Examples of students with diverse learning requirements include but are not limited to students with physical, mental or social challenges that affect their educational experiences and activities. Students with accommodation requirements may benefit greatly from WIL experiences, as the WIL experience allows them to understand and solve important issues, negotiate potential barriers and understand available support and services while in a safe, protected environment (Briel & Getzel, 2005; Jackson et al., 2017; Thakur, 2021). Mentors may also have a lot to gain from the experience of working with students with diverse learning requirements (Severance & Starr, 2011). WIL program directors and course instructors should ensure their promotional materials are inclusive to encourage participation from student groups that may not feel permitted to participate (Severance & Starr, 2011).

Severance and Starr (2011) highlight a number of questions to consider around disclosure and accommodations for students in WIL, including:

- Does the student want to disclose their disability to the internship site? Note: Faculty/staff may not disclose to the worksite or work supervisor on behalf of the student.
- How can the student be prepared to discuss their learning needs in terms of impact, functionality and limitations instead of simply diagnosis?
- What is the appropriate timing for disclosure? (e.g., before the placement interview or once work position is secured)
- What types of accommodation does the student need?
- Is the internship site a realistic placement? That is, is it a good match for the student's abilities and limitations with or without accommodations?

★ | PROGRAM SPOTLIGHT

Carleton University's David C. Onley Initiative for Employment and Enterprise Development

Challenging bias and prejudice are important to WIL program evaluation and development due to the myriad ways bias impacts practice (Craig et al., 2022; Tunny et al., 2022). The David C. Onley Initiative (DCOI) is a partnership among Carleton University, the University of Ottawa, Algonquin College and La Cité with the aim of researching and developing resources for students with disabilities as they navigate entry into the labour market. Carleton University's DCOI team is dedicated to highlighting the value that students with disabilities can bring to a workplace. The DCOI team is undertaking efforts to supplement existing quantitative data on people with disabilities (i.e., employment, income and demographics like age) (Statistics Canada, 2018) in a more qualitative way. Specifically, the team held focus groups with employers to understand their perceptions on employing students with disabilities in their WIL programs. These discussions illuminated critical areas of improvement: building an inclusive workspace, fitting accessibility into these conversations and highlighting differences between visible and invisible disabilities, among others (Bulk et al., 2023; Thakur, 2021). The DCOI team also worked to identify an intervention point for equitable practice.

The DCOI team actively supported their partner institutions and employers by teaching them how to provide accommodations for career fair events. There are various approaches to changing a physical space that is supportive of students with a range of disabilities. For example: using round tables to support those with hearing difficulty; coordinating networking ambassadors who may help facilitate conversations between students and employers; and creating separate, quiet spaces for students to observe. These approaches helped reframe perceptions of accessibility for all involved in the WIL process: institutions, practitioners, employers and students. This is an important step in moving away from viewing disability as an individual problem and towards "institutional and societal responsibility" (Bulk et al., 2023, p. 12). While the DCOI aims to advance inclusivity and accessibility for students with disabilities in the workplace, many of the practices involved in this initiative can be applied to the WIL space.

Managing Risk

While considering the learning environment in which the work experience occurs, it is also important to think about the health and well-being of students at the worksite so that effective engagement in the workplace learning activities can occur. Participation in WIL has unique risks compared to traditional classroom learning (Cooper et al., 2010), with associated logistical considerations that need to be addressed to manage risk in this environment. "Good risk management requires tailoring [the work experience] in a way that does not undermine the institutional and learning objectives of WIL" (Cameron & Klopper, 2015, p. 345).

Common risks associated with students' WIL experiences include workplace health and safety and negligence; issues with duty of care; intellectual property issues; breach of confidentiality; student misconduct; termination of the student from the workplace; misalignment of workplace practices with the policies of the academic institution (e.g., inclusion and accessibility); workplace harassment; sexual harassment; and issues with wages and payment (Bosco, 2014; Boye, 2022; Cameron & Klopper, 2015; Gatto et al., 2020; Koerin & Miller, 1995; Mallozi & Drewery, 2019). In an attempt to manage these risks, many academic institutions engage with the institution's legal team to develop a number of risk management practices, including: the development of insurance policies; placement agreements (or Memoranda of Understanding) between the academic institution and the worksite; student codes of conduct, disciplinary policies and due practice; accommodation requirements for students with disabilities; institutional guidelines on equity and inclusion, sexual harassment and workplace harassment; intellectual property and privacy law guidelines; and guidelines for wages and other payments (Broughton & Overby, 1993; Cameron & Klopper, 2015; Cobb, 1994; Francis et al., 2007; Gelman, 1990; Koerin & Miller, 1995; Rothstein, 2007; Vacha-Haase et al., 2004).

The risks of the WIL experience are particularly salient when facilitating student work experience abroad. As such, when the student work is performed internationally, additional measures for managing risk are recommended, including: the conduct of more rigorous risk assessments of the student work, work environment and geographical location of the work; health and safety prerequisite screening (e.g., proof of immunization, medical insurance); and the development of an emergency communication plan (e.g., reliable contact information of the WIL program director at the student's academic institution, the contact information of the worksite and worksite supervisor and student access to communication options such as a phone with international roaming and internet access) (Tan, 2014).

In addition to the risk management protocols described above, when students are conducting their work experience internationally, other factors for managing risk include consideration of: travel health advice (e.g., necessary vaccinations, adequate medications for the duration of travel, an action plan for any pre-existing medical conditions); travel plans; preparation for any language barriers; cultural and political orientation and sensitivity training; in-country orientation to specific etiquette, behaviour, safety precautions and transportation practicalities; and plans for supervision and checking in with the student's academic institution (Tan, 2014). Any requirements for work permits or worker visas should also be considered.

Work-integrated Learning Risk Management Practices

- Insurance policies
- Placement agreements (Memoranda of Understanding)
- Codes of conduct, disciplinary policies and due practice
- Accommodation requirements
- Guidelines on equity and inclusion, sexual harassment and workplace harassment
- Intellectual property and privacy guidelines
- Guidelines for wages and other payment

Adapted from Cameron & Klopper (2015).

Additional Risk Management Considerations for International Work-integrated Learning

- Risk assessments
- Health and safety prerequisite screening
- Emergency communication plan
- Travel health advice
- Travel plans
- Managing language barriers
- Cultural and political training
- Plans for supervision
- Work permit requirements

Adapted from Tan (2014).

? | REFLECTION QUESTIONS

What are the potential risks of the WIL experience and how can they be managed? What sources of guidance exist at the institution for the risk management of WIL?

- What are the requirements and provisions available for student insurance in the workplace?
  - General liability insurance
  - Health and safety insurance
- What is common institutional practice for educational placement agreements? Is there a template placement agreement for use by educators and administrators within the institution?
- What placement prerequisites can be established to protect student health and safety in the workplace?
  - Orientation, safety and equity training
  - Proof of immunization
- What institutional policies and procedures exist at the institution for accommodation requirements for people with disabilities?
- How does the institution deal with sexual harassment or workplace harassment of students when on placement?
- What policies and procedures exist at the institution for study/WIL abroad?
- Who can be contacted at the institution for more information on managing risk in WIL?
- Is there an office/person at the institution that provides advice on risk management issues?

Mentors have the ability to encourage teamwork, foster positive attitudes about the professional setting, facilitate reflection, encourage risk taking and support the transition from theory to practice.

Summary of Effective Practices for Facilitating Purposeful Experience

2

Despite limited consensus, O'Shea (2014) provides a general description of each of the main forms of structured work experience:

- ***Placement:*** An umbrella term describing the range of structured work experiences facilitated by the postsecondary institution.
- ***Practicum:*** The development of professional capabilities in a work setting, with the aim of meeting professional registration requirements.
- ***Internship:*** Work experience guided by an experienced professional to facilitate "deep learning and development as a professional" and provide "a realistic preview of what employment would be like in the sector" (O'Shea, 2014, p. 8).
- ***Co-operative education:*** Alternating full-time study and full-time employment conducted under the guidance of an experienced professional for the purpose of developing employability skills.
- ***Sandwich course:*** A work position in which the "student spends time engaged in the practice of their future profession, supervised by a senior professional." The sandwich course is often undertaken during a period away from study at the postsecondary institution (O'Shea, 2014, p. 8).
- ***Field education:*** Work experience linked to the content of the academic program and designed for the purpose of preparation for professional practice.
- ***Fieldwork:*** Experience in which students are exposed to the work setting through participation in work activities, laboratories, site visits or field trips.
- ***Work study:*** Non-curricular concurrent work experience not necessarily in the practice of future profession; often tied to general professional and/or personal development.

WIL stakeholders can think of the design of WIL along a continuum reflecting the various degrees of project implementation and work participation:

- ***Project implementation***, where students design, deliver, manage or evaluate a specific project as part of their work experience, such as:
  - Research projects (e.g., research addresses the specific needs of an organization for evaluation)
  - Project development and management that fulfills practical needs in the workplace and enhances students' practical and management skills
- ***Work participation***, where students engage in and contribute to the day-to-day activities of the workplace.

Determining the learning emphasis of the WIL program is critical for ensuring educational quality. It can be thought of as a three-stage process: 1) defining learning outcomes; 2) determining learning assessment; and 3) drafting learning plans.

- These three aspects shape the nature of the work experience by guiding what placement tasks occur, the location, the timing, the purpose and the resources, support and feedback required.

Learning outcomes are specific expectations of what students are supposed to value, know or be able to do as a result of completing the WIL experience (Ravitch, 2007); they are generally developed in partnership with all stakeholders (Holly, 2014).

When creating learning outcomes, the following criteria should be covered:

- A learning outcome statement should contain a verb and an object and provide purpose for the learning; it should consider the audience (who), behaviour (what), conditions (how) and degree (how much); and it should use terms to describe observable behaviours (Osgood & Richter, 2006).

Models commonly used to develop learning outcomes include Bloom's (1956) Taxonomy of Learning Domains and Fink's (2003) Taxonomy of Significant Learning.

In Bloom's Taxonomy of Learning Domains, learning outcomes are sorted into three groups, called domains:

- ***Cognitive domain:*** Intellectual or thinking skills
- ***Psychomotor domain:*** Physical skills or the performance of actions
- ***Affective domain:*** Attitudes and values

Fink's Taxonomy of Significant Learning outlines six different kinds of learning that can be considered when developing learning outcomes of WIL (Fink, 2003):

- ***Foundational knowledge:*** Remembering and understanding
- ***Application:*** Critical and practical thinking, creativity, managing projects and practice skills
- ***Integration:*** Connecting ideas and experiences; interdisciplinary learning
- ***Human dimension:*** Leadership, citizenship, ethics and learning about one's self and others
- ***Caring:*** Feelings, interests, values and commitments
- ***Learning how to learn:*** Enhancing learning plans, inquiring and self-directed learning

Learners may find goal setting and plan design initially challenging and may need some guidance when specifying their outcomes (Li & Burke, 2010).

The key to gauging student learning and ensuring educational integrity in WIL is through appropriate learning assessment (Young & Baker, 2004). The primary objective of assessment activities is to assess whether the learning outcomes were achieved.

There are three time-based techniques for learning assessments (Ash & Clayton, 2009):

- ***Summative assessment***, which is implemented at the culmination of a learning experience to evaluate the outcomes of the experience;
- ***Formative assessment***, which is implemented throughout a learning opportunity with the purpose of recognizing challenges and improving upon them; and
- ***Integrated assessment***, which merges summative and formative assessment tools to encourage learners to be conscious of their own learning.

Two commonly used models to design learning assessments are Miller's (1990) Triangle/Model of Clinical Competence and Biggs and Collis' (1982, 1989) Structure of Learning Outcomes (SOLO) Taxonomy.

Miller's (1990) model is composed of four components of competence:

- Knowledge (knows)
- Competence (knows how)
- Performance (shows how)
- Action (does)

Biggs and Collis' model (1982, 1989) is composed of five levels of competence:

- ***Prestructural:*** The learner has minimal understanding of the knowledge required for a particular learning experience.
- ***Unistructural:*** a single component of the learning experience is understood by the learner (e.g., theoretical concept related to course).
- ***Multistructural:*** Multiple but independent components of the learning experience are understood by the learner (e.g., multiple theoretical concepts).
- ***Relational:*** Multiple components of the learning experience are understood by the learner and integrated to build a deeper network of knowledge (e.g., personalizing theoretical concepts to be relevant to experiences).
- ***Extended abstract:*** Knowledge is applied or tested in a new environment (e.g., the learner uses theoretical concepts in an experiential learning setting).

Examples of assessment activities include (e.g., Fink, 2003; Montrose, 2002; Reddan, 2011):

- written and practical examinations;
- assignments (e.g., portfolios, analytical papers, reflection essays);
- oral presentations;
- portfolios of evidence (e.g., photography, critical incident analysis);
- direct observation; and
- concept maps or capstone projects.

Challenges of assessment of learning outcomes include (Connaughton et al., 2014):

- inter-assessor variations (e.g., different workplace supervisors applying different grading standards);
- intra-assessor variations (e.g., not all students are assessed against the same criteria); and
- case specificity (e.g., students have specific situations that impact performance).

Students also create learning plans to assist in meeting the learning outcomes. These plans should include (e.g., Martin & Hughes, 2009; Montrose, 2002):

- clear, measurable and realistic learning outcomes;
- tasks/activities that assist in reaching each learning outcome;
- pre-determined evidence required to demonstrate success of the outcomes;
- modifying tasks that are realistic;
- a method and time frame for achieving tasks and assessment of outcomes; and
- applicable guidelines from the host institution or program.

To translate learning outcomes into specific workplace tasks, Cooper et al. (2010) suggest seven different approaches (as described in Reddan, 2011):

- ***Work required approach:*** Students work through an agreed set of tasks while in the workplace.
- ***Reflective assessment approach:*** Students observe day-to-day practice in the workplace and reflect on decisions made through activities (e.g., journals).
- ***Work/learning contract approach:*** Students negotiate a set of workplace responsibilities with their supervisor to be achieved in a defined time frame.
- ***Project work approach:*** Students are responsible for completing a specific project within a set time frame, concluding with a written report.
- ***Critical incident analysis approach:*** Students record verbatim an incident in which they were involved. They discuss their response with their learning guide and evaluate how their actions might have been more effective.
- ***Case study/history approach:*** Students provide a study of an individual, feature or event in the workplace with a plan for change or improvement.
- ***Direct observation approach:*** Students are observed over time in the workplace. A record is maintained of observers' estimations of their performance in relation to learning outcomes (Cooper, Orrell & Bowden, 2010).

The learner's physical and social environment, and the quality of relationships within those environments, also impact students' learning experiences (Kolb & Kolb, 2005).

To foster a learning space, it is important to incorporate different factors that aid learning in experiential education, including:

- development of expertise (repeated practice in areas related to learner goals);
- action and reflection (active expression, testing and reflection of learning);
- feeling and thinking (connecting emotions to knowledge);
- encouraging learners to take charge of their own learning;
- inside out learning (linking educational experiences to learner's interests); and
- communication (conversation that promotes ongoing reflection).

Other aspects that contribute to positive learning spaces include:

- the ***presence of mentors*** to encourage teamwork, build relationships, foster positive attitudes about the professional setting, support learning, facilitate reflection, encourage risk taking, provide feedback, act as a role model and help transition theory to practice (e.g., Fish, 1995; Linford & Marshall, 2014; Lu, 2007; Thakur, 2021);
- ***Consideration of students with disabilities***, given that students with accessibility requirements may benefit greatly from WIL experiences, as WIL allows them to solve important issues, negotiate barriers, and understand available support and services while in a safe and protected environment (Briel & Getzel, 2005; Bulk et al., 2023; Tunny et al., 2022); and
- ***Risk management***, including monitoring the health and well-being of students and navigating risks such as workplace health and safety negligence, issues with duty of care, intellectual property issues, student misconduct, concerns about payment and issues of harassment (Cameron & Klopper, 2015; Koerin & Miller, 1995)

3

Reflection

This chapter focuses on the reflective observation learning mode. Forms of reflection are defined, as are antecedents and conditions for high-quality reflection. The DEAL model for critical reflection is introduced as a tool to use for facilitating reflection in WIL. Following a brief explanation of the importance of facilitating reflection in the structured work experience, recommendations are outlined for designing and teaching reflection, including specific instructional practices, reflection exercises and forms of assessment. The chapter concludes with a review of challenges that may be faced when addressing this learning mode in WIL programs.

Defining Reflection

Reflective activities have an essential role in facilitating knowledge transformation in WIL (Craig et al., 2022; MAESD, 2017; Sator et al., 2021; Sattler, 2011).

While no formal definition of reflection has reached a consensus among scholars (Atkins & Murphy, 1993), there are several definitional aspects that have been suggested, including:

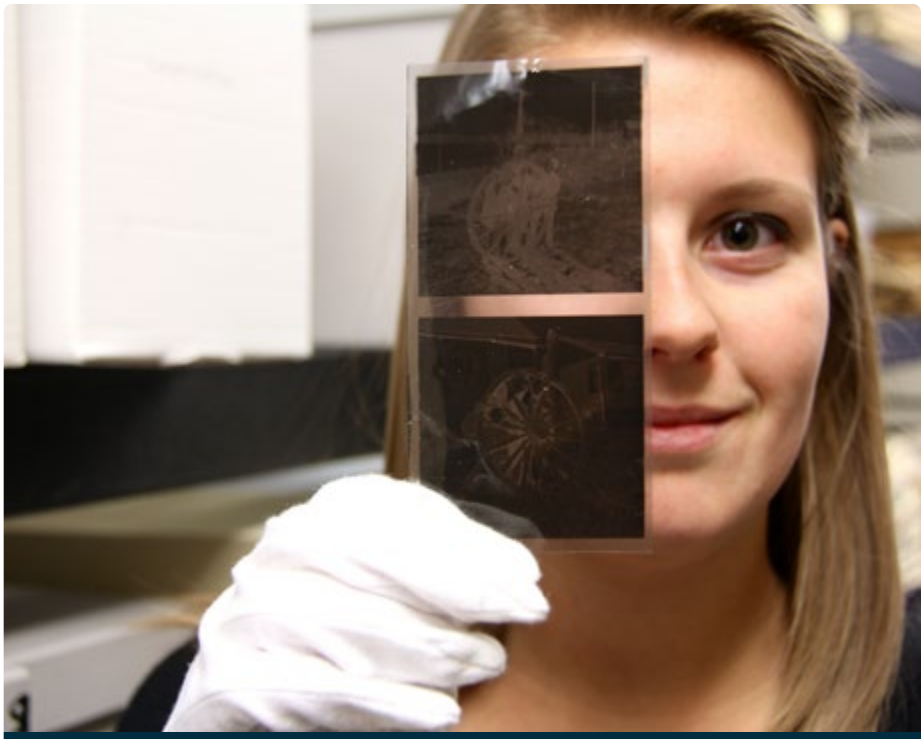
- an understanding of one's personal philosophy, while continuously re-examining that philosophy in relation to experience (Nolan, 2008);
- an active process in which students develop and learn through analysis of personal and professional practice (Bolton, 2001; Brock & McGill, 1988; Dewey, 1910; Kim, 1999; Nolan, 2008); and
- thoughtful retrospection and judgment about experience, feelings or knowledge that provides new understanding and informs future action (Kember et al., 2001; Schon, 1983; Sullivan & Rosin, 2008).

Critical Reflection

Another term associated with reflection is 'critical reflection.' ***Critical reflection*** enhances basic reflection through questioning personal assumptions or biases, connecting theory to experience, addressing the ways in which theoretical knowledge and experience differ, considering multiple perspectives and creating evidence of new learning (Ash & Clayton, 2009; Whitney & Clayton, 2011; Zlotkowski & Clayton, 2005). Critical reflection can also represent a connection between reflection and critical theory, in which reflectors are encouraged to use experience and reflections to confront social issues (Beard & Wilson, 2013). For example, critically reflecting on one's own biases may support an inclusive work culture, positively impact student learning and help students confront and discuss ideas around power, accessibility and inclusion (Dessel & Corvidae, 2016; Eady et al., 2022; Jackson et al., 2017). Furthermore, engagement in critical reflection can assist learners in identifying areas where improvement in practice is needed (Boud et al., 1985; Schon, 1983).

Reflection-in-action and Reflection-on-action

Schon (1983) further differentiates types of reflection into reflection-in-action and reflection-on-action. ***Reflection-in-action*** refers to a process in which the individual is required to understand and adapt to a challenging and ongoing situation (Beard & Wilson, 2013; Schon, 1983). Reflection-in-action commonly occurs when an



Engagement in critical reflection can assist learners in identifying areas where improvement in practice is needed.

individual encounters a situation — often in the workplace — that is unfamiliar and requires attention or resolution (Schon, 1983). Conversely, ***reflection-on-action*** is a planned and structured reflection exercise that facilitates experiential learning (Schon, 1983). Reflection-on-action is most common when the individual is not currently engaged in the workplace or environment in which the situation or experience occurred (Schon, 1983).

Single-loop and Double-loop Reflection

An additional concept for understanding reflection is by looking at reflection used for single-loop learning (single-loop reflection) and reflection used for double-loop learning (double-loop reflection). ***Single-loop reflection*** refers to thoughtful retrospection on a particular experience, including its connection to theoretical knowledge but not considering personal influences (Argyris & Schon, 1974). ***Double-loop reflection***, on the other hand, is when reflectors challenge their role and contribution in learning environments and carefully consider the influence of their own personal beliefs, attitudes or actions (Argyris & Schon, 1974). During double-loop reflection, learners will often consider reactions (i.e. discomfort with something they saw/heard/did) and pose questions such as, "Am I doing the appropriate things?" (Beard & Wilson, 2013).

Surface Reflection and Deep Reflection

Finally, it is important to recognize the difference between reflection used for the purposes of surface learning and reflection used for the purposes of deep learning, termed 'surface reflection' and 'deep reflection.' ***Surface reflection*** refers to an approach in which learners typically view the reflection and corresponding learning opportunities as mandatory requirements (e.g., for course credit) that are completed through reliance on extrinsic motivation (Biggs, 1987; Chin & Brown, 2000; Marton, 1983). In surface reflection, students reflect upon the descriptive elements of their structured work experience, which may or may not include a review of theory and/or relate directly to the students' learning plans and intended outcomes. In contrast, ***deep reflection*** occurs when a learner views a learning opportunity as relevant to their experience or applicable to real-world contexts, and often relies on intrinsic motivation to complete the task (Biggs, 1987; Chin & Brown, 2000; Marton, 1983). In deep reflection, students strive to develop an understanding of the experience through an emphasis on linking previous understandings with new knowledge, recognizing others' perspectives in solving difficult tasks, providing multiple explanations to highlight an issue and allowing themselves to change or deepen their perspective on an issue (Biggs, 1987; Craig et al., 2022; Dessel & Corvidae, 2016; Entwistle & Waterson, 1988; Marton, 1983; Offir et al., 2008).

KEY TERMINOLOGY

Summary of Reflection Definitions

Reflection	Thoughtful retrospection that provides new understanding and informs future action
Critical reflection	Enhances basic reflection through questioning personal assumptions, connecting theory to experience, considering multiple perspectives and creating evidence of new learning
Reflection-in-action	Impromptu reflection required to understand and adapt to an ongoing situation
Reflection-on-action	Planned and structured reflection post-experience
Single-loop reflection	Connection of experience to theoretical knowledge
Double-loop reflection	Considers influence of personal values, attitudes and actions
Surface reflection	Extrinsically motivated reflection on the descriptive elements of experience
Deep reflection	Intrinsically motivated reflection on experience as applicable to self and real-world context

Antecedents and Characteristics of High-quality Reflection

Building upon the definitions of reflection, scholars have outlined several important aspects of the reflective process that should be attended to if students are to produce high-quality reflections.

Included in these recommendations are two important antecedents that encourage the reflective process: 1. The individual is involved with an unfamiliar, new or complex experience (Beard & Wilson, 2013; Dessel & Corvidae, 2016; Loughran, 1996; Mezirow, 1991; Sator et al., 2021; Seibert & Daudelin, 1999); and 2. The individual is open and eager to reflect on experiences (Rogers, 2001).

It is also important to consider the context in which the reflection occurs. Notably, the environment should be designed deliberately to encourage reflection through greater autonomy of the learner, appropriate challenges and pressures (e.g., increased workload or highly regarded project), consistent and appropriate assessments with constructive feedback, and opportunities to collaborate with others (Sator et al., 2021; Seibert & Daudelin, 1999).

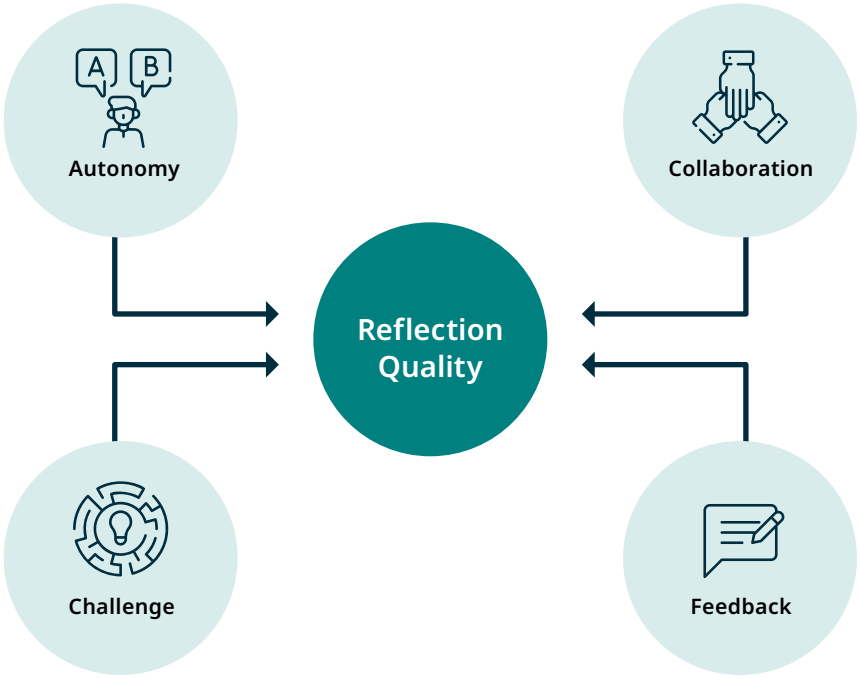
In addition to the antecedents of reflection and environmental influences on reflection quality, scholars have also highlighted several conditions for high-quality reflection. Reflection activities should be ***continuous***, occurring both throughout and following the structured work experience (Eyler et al., 1996; Jackson et al., 2017). More specifically, students should be reflecting both in-action and on-action as a part of the WIL program.

These reflections would be enhanced by a combination of formative (ongoing) and summative (cumulative) feedback received from the workplace supervisor, instructor, clients, peers or oneself within the work environment.

Reflection activities should encourage students to ***draw on personal experience*** while also situating their reflections ***within the broader community*** (Eyler et al., 1996; Dessel & Corvidae, 2016; Rogers, 2001). This requires that students use both surface and deep reflection as a part of their WIL program.

Environmental Influences on Reflection Quality

(Rogers, 2001)



RECOMMENDATIONS AND GUIDELINES

Important Precursors to Reflection

- Involvement with an unfamiliar, new or complex experiences
- Willingness to reflect on experiences

Rogers (2001)

The reflection should be ***guided with deliberate connections*** drawn between theory and practice in the learning environment (Bringle & Hatcher, 1999; Eyler et al., 1996). Reflections should also involve ***personal changes*** to the learner and emphasize consistently ***setting new goals*** (Zlotkowski & Clayton, 2009). These connections between theory, practice and person can be facilitated through the use of single-loop and double-loop reflection.

Lastly, it is suggested that learning is strengthened when activities emphasize ***inductive*** (e.g., experience followed by academic learning) and ***deductive*** (e.g., academic learning followed by experience) reflections (Rogers, 2001), which points to the importance of classroom theory/knowledge influencing practice in the work setting, as well as developing opportunities for the practice of the work setting to guide and inform theoretical content taught to the students as a part of the WIL experience. This last point is addressed in more detail in Chapter 4.

RECOMMENDATIONS AND GUIDELINES

Conditions of High-quality Reflection

- Reflection should be continuous.
- Reflection activities should draw on personal experience as well as be situated within the broader community
- Reflection activities should be guided by a deliberate connection between theory and practice
- Reflection should involve personal changes to the learner and emphasize consistently setting new goals
- Learning is strengthened when activities emphasize inductive (e.g., experience followed by academic learning) and deductive (e.g., academic learning followed by experience) reflections
- Critical reflection helps students and practitioners consider their own positionality within the WIL program as well as within the broader context of WIL

Adapted from Bringle & Hatcher (1999), Eady et al. (2022), Eyler et al. (1996), Jackson et al. (2017), Rogers (2001), Nielsen et al. (2022) and Zlotkowski and Clayton (2005).

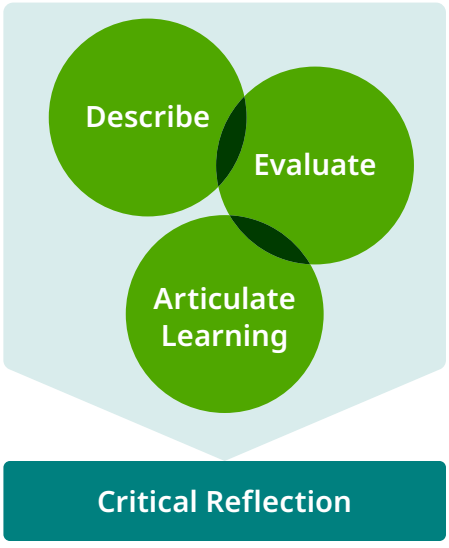
The DEAL Model for Critical Reflection

Building upon the antecedent and conditions for reflection, several scholars have attempted to theorize the process of reflection from beginning to end in order to enhance the value of these exercises.

Rogers (2001) summarizes a number of theoretical frameworks for reflection, including the work of Dewey (1933), Schon (1983), Langer (1989), Loughran (1996) and Seibert and Daudelin (1999), to name a few. However, for the purpose of this guide, Ash and Clayton's (2004) three-step DEAL Model for Critical Reflection will be highlighted as the guiding framework for strategic engagement in the reflective process. The DEAL model is useful for viewing reflection as a means for learning throughout an educational opportunity, as opposed to a task to complete following the experience (Clayton & Ash, 2004).

DEAL Model for Critical Reflection

(Ash & Clayton, 2004)



The three steps of the DEAL model are detailed below:

1. ***Describe*** the learning experiences as objective and comprehensive as possible. Ash and Clayton (2009) suggest that learners be prompted to consider simple but important aspects of an experience, such as who was involved in the experience, where the experience occurred and the details of what happened throughout the experience.

2. ***Evaluate*** the learning opportunities with respect to previously identified learning goals or expected outcomes. During this step, learners should be encouraged to personalize the learning experience in order to avoid simply summarizing it (Ash & Clayton, 2004).

3. ***Articulate learning*** by recognizing the learning experience that has occurred and creating goals intended for future action. These new learning goals are generated to enhance and refine practice moving forward (Ash & Clayton, 2009).

GIVE IT A TRY!

Reflection Questions for Students: The DEAL Model for Critical Reflection

Describe	• What took place? • When and where did the experience in question take place? • Who was and was not present? • What did you and others do/not do? • What did you see, hear, etc.?
Evaluate	• In what ways did you succeed or do well? • In what ways were you challenged? • How did this experience make you feel (positively and/or negatively)? • How has your perspective/thoughts changed in light of you experience?
Articulate Learning	• What did you learn? • How did you learn it? • Why does it matter? • What will I do in light of it?

SUCCESS STORY

University of Toronto Mississauga

Critical reflection has long been an important component of WIL programs in relation to integrating theory and practice and broadening students' thinking about their experiences and how they may change their approach, perspective or actions in future contexts. Reflective journals provide an opportunity for students to express how they see themselves as young professionals, and the trial-and-error processes they often engage in within the workplace. One of the most effective models for critical reflective journaling is Ash and Clayton's DEAL (Describe, Examine and Articulate Learning) model, which includes articulating learning. The model calls for a structured approach that can be modified even further by applying DEAL to specific critical incidents in which students are confronted with a challenge and possible change to their thinking. Students' reflective journals can be used to develop a broader understanding of the impact of the work experience on their learning outcomes, personal growth and professional identity development, relationship building, knowledge transfer, skill building and autonomy (self-directedness), among other things.

Tracey Bowen, PhD
Assistant Professor, Teaching Stream and Internship Coordinator
Institute of Communications, Culture, Information & Technology
University of Toronto Mississauga

The Importance of Reflection in WIL

Widely recognized as an important component of WIL, rigorous reflection deepens students' knowledge and understanding, and enhances personal and professional growth. Reflection assists students in thinking critically about their work experiences by contemplating the influence an experience has on their life (Ash & Clayton, 2009), generating an awareness of the origins and importance of particular learning experiences (Ash & Clayton, 2009) and creating new meanings of previous experiences (Beard & Wilson, 2013). In addition, reflection can have personal benefits for the student, such as: the development of valuable life skills including decision-making, goal setting, problem solving and the ability to integrate multiple concepts (Boud et al., 1985; Conrad & Hedin, 1990; Eyler & Giles, 1999); a chance to develop a deeper understanding of oneself and one's identity (Beard & Wilson, 2013; Dessel & Corvidae, 2016); and opportunities for engagement in present, self-aware and authentic practice (Bandura, 1986; Beard & Wilson, 2013; Nielsen et al., 2022). Furthermore, consistent reflection may strengthen new or pre-existing relationships among students, instructors and workplace supervisors involved in the experiential learning environments (Eady et al., 2022; Jackson et al., 2017; Mann et al., 2009).

Reflection is considered a valuable skill cultivated through instruction and practice.

Designing and Teaching Reflection

High-quality reflections emerge as a result of deliberate and conscientious planning (Ash & Clayton, 2009; Sator et al., 2021). Reflections serve to assist postsecondary students in navigating learning experiences and drawing meaning from these experiential learning opportunities (Ash & Clayton, 2004; Sator et al., 2021). From this perspective, reflection is considered a valuable skill cultivated through instruction and practice, instead of an assumed outcome of experience (Aronson, 2011). By including reflection as a significant aspect of course material, postsecondary students engage in meaning-making tasks consistently and intentionally (Dessel & Corvidae, 2016; Turns et al., 2014).

Instructional Practices

To achieve high-quality reflection in WIL settings, reflective activities should be guided by trial and error, regular feedback, and consistent alignment between activities and intended learning outcomes (Ash & Clayton, 2009). Reflections must also consider the intricacies of particular contexts in which WIL occurs (Ash & Clayton, 2009; Eady et al., 2022). These reflective activities should not be limited to the learner. Instead, reflection should be an iterative process between the student and the instructor, workplace supervisor, peers and other practitioners in order to invite alterations to practice (Jackson et al., 2017; Sandars et al., 2008).

To foster reflective action, Rogers (2001) synthesizes the broad factors useful for instructors or practitioners to strengthen students' reflective process, including the use of advanced vocabulary, timing considerations, attention to learning styles, the use of guiding questions and activities and attention to environmental factors. In addition, it may also be useful to consider who the students are, their cultural contexts and important preferences and ways of moving into new reflective spaces. Such considerations can support students' development. For example, a student's Indigenous culture, including oral traditions, may be supported with verbal reflections and circle pedagogy; students from other cultures may prefer individual written reflection followed by conversation with peers.

It is recommended that instructors encourage students to use descriptive vocabulary to promote rich and exact reflections (Dewey, 1933). This may be done through both written and oral reflections. One activity that may be used to integrate advanced vocabulary into students' reflections is to lay out a number of cue cards with a word on each card (e.g., apprehensive, enthusiastic, apathetic, fervent, zealous). After prompting students with a reflective question (e.g., "How would you describe your feelings about your assigned placement before beginning your work experience?"), students would select a word card that best reflects their answer and then use this word card to elaborate on and discuss their answer with a group.

RECOMMENDATIONS AND GUIDELINES

Instructional practices to strengthen student reflection:

- Encourage the use of advanced vocabulary to promote rich and exact reflections.
- Ensure appropriate timing.
- Pay attention to the individual learning styles of students.
- Provide guiding questions and activities.
- Structure appropriate learning environments.
- Create opportunities for students to reflect on their WIL experiences from a global and inclusive mindset.

Adapted from Rogers (2001)

The timing of the reflection is also important. Instructors should develop strategies to encourage continuous reflection before, during and following the work experience. It is also important to assure appropriate distance between the learning experience and reflection (Fade, 2002; Rogers, 2001). For post-experience reflections, enough time should pass so that students can look back on their experience, but not so much time that details of the work experience may be forgotten.

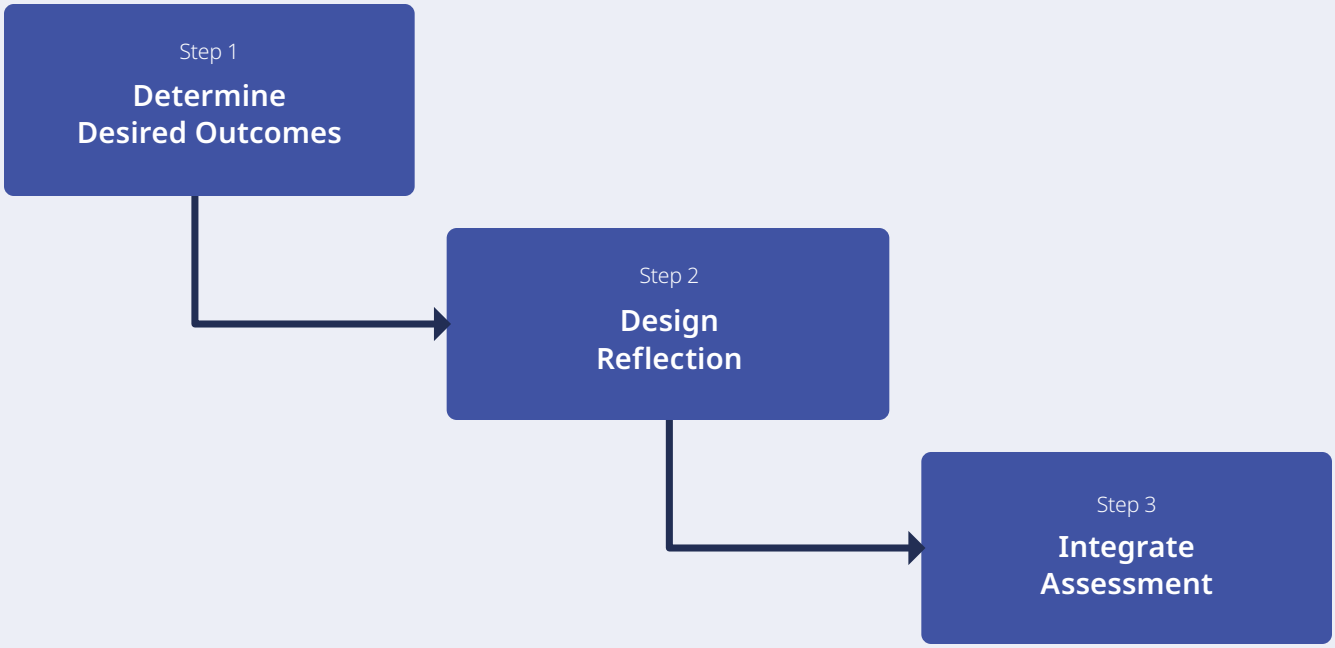
Instructors should pay attention to the individual learning styles of students (Mann et al., 2009; Thakur, 2021). This can be done by encouraging reflection on aspects of the experience that relate to each learning mode (i.e., feeling, watching, thinking, doing), including the following example questions:

- "In what ways do you feel you were successful in the workplace? In what ways did you feel challenged?"
- "Describe a situation in which you observed the practice of your placement supervisor/another co-worker? How would you do things the same/differently?"
- "How does the practice in the workplace compare to what you've learned in previous courses?"
- "What experiences did you have at the worksite that were unexpected? How did you adapt?"
- "What are some of the ways in which the work at the site may be improved? What would you suggest?"

In order to facilitate student reflection, it is useful to provide guiding questions or activities. Sample activities are included in the next section of this chapter.

Lastly, when facilitating student reflection, it is important to consider the broader work experience that the student will be reflecting on and ensure appropriate learning environments (Rogers, 2001). This includes encouraging self-directed learning, purposeful integration of challenges throughout the learning experience, collaborative practice and opportunities for feedback, including both formative assessment feedback (used during a process as a way to improve both the process and the outcomes) and summative assessment feedback (used at the end of a process to measure and document outcomes).

RECOMMENDATIONS AND GUIDELINES



Building on these instructional practices, Ash and Clayton (2004) outline a ***three-step process for designing critical reflection*** in applied learning contexts such as the structured work experience. These three steps include: 1. Determining the desired learning goals and outcomes; 2. Designing reflection so as to achieve those outcomes; and 3. Integrating formative and summative assessment into the reflection process.

Reflection Exercises

In addition to strategies that facilitate the reflective process, there are also a number of tangible activities instructors can implement to encourage and assess students' reflective capacities, including pre-experience and post-experience surveys, structured dialogue (e.g., mentor-to-mentee, class discussions, online chats), writing activities (e.g., worksheets, case studies, essays, journaling, question posing, narrative), oral/verbal activities (e.g., acting, improv, or storytelling in front of an audience), group discussion, (e.g., sharing), visual arts (e.g., graphic designs, poster presentations, video) or through behaviours such as modeling (Ash & Clayton, 2009; Bowen, 2011; Brookfield, 1990; Eyler, 2002; Loughran, 1996; Offir et al., 2008; Seibert & Daudelin, 1999; Sparks-Langer & Colton, 1991; Thompson & Thompson, 2008). According to Ash and Clayton (2009), these tangible reflection activities are most effective when designed to achieve an intended outcome and used sequentially to build on one another.

One way to plan for continued and progressive reflection across a student's work experience is through the use of a ***reflection map***. Eyler (2001, 2002) created a tool for organizing reflection activities that lays out reflection activities according to timing (pre, during and post-experience) and relational context in which the reflection and associated assessment feedback would occur. Through the use of this reflection map, students can assume more ownership over the planning of reflection and its connection to learning goals. Also, according to Eyler (2009), another benefit of using a reflection map is that "classroom time is conserved by building reflection into other settings, and the process encourages continuous iterative reflection rather than a single paper or event at the end of the field experience. This is particularly important for cooperative education and internships where regular classroom meetings are difficult to arrange" (p. 30). As an example, pre-work reflection that occurs alone could include a letter to self or a goal statement. During the work experience, listserv discussions could occur online with classmates, including debrief of critical incidents that occur at the workplace. After the work experience, a student could reflect with members at the worksite by presenting a summary report of their work or by participating in an exit interview and performance assessment debrief with their workplace supervisor.

Reflection Exercises	
Surveys	• Pre-experience survey • Post-experience survey
Structured dialogue	• Mentor-to-mentee • Class discussion • Online charts
Writing activities	• Worksheets • Case studies • Essays • Journaling • Question posing • Narrative
Oral/verbal activities	• Acting • Storytelling • Sharing anecdotes • Improv • Group discussion
Visual arts	• Graphic designs • Poster presentations • Video
Behaviour	• Modeling

GIVE IT A TRY!

Sample Reflection Map

	Pre-work Experience	During Work Experience	Post-work Experience
Reflect alone	Reflection activities: • • •	Reflection activities: • • •	Reflection activities: • • •
Reflect with peers	Reflection activities: • • •	Reflection activities: • • •	Reflection activities: • • •
Reflect with course instructor/ WIL program co-ordinator	Reflection activities: • • •	Reflection activities: • • •	Reflection activities: • • •
Reflect with members of the worksite	Reflection activities: • • •	Reflection activities: • • •	Reflection activities: • • •

Adapted from Eyler (2002).

GIVE IT A TRY!

Sample Reflection Exercises

Please note that these reflection exercises can and should be adapted to fit student needs and accommodations. Given the increase in WIL programming taking place virtually or in hybrid formats (Chatoor & Balata, 2023), the need to creatively approach and adapt reflection exercises like the ones provided below is important.

Daily Bag Drop	Each person in the class designs a paper bag to hang in their workplace environment. • Design blank cards that have "Positive experience at worksite: _____," "An area to improve: _____," and "Goals for next time: _____" written on them, followed by an appropriately sized blank space for the student to fill in with text. • Following each designated shift at the student's worksite, the student will sign and date a card and fill in the blank spaces to recognize a positive experience that occurred during placement that day, a challenging experience that requires improvement or an alternate resolution, and the steps they will take to improve practice during their next opportunity at the workplace. • At the culmination of the work experience, the student will empty the bag and recount the various positive aspects, challenges and improvements that they made throughout the WIL opportunity. • These cards could also provide the foundation for a written analysis or discussion with the class.
Two Things	• Each individual is required to record two things following every opportunity/shift in the workplace that has been significant for their learning. • The individual will then record the ways in which these aspects can be applied to future practice or integrated with other knowledge learned in the classroom.
Field Notes	• Students are to create a small reference book that details one interesting aspect of the work experience, improvements that have been achieved, something useful that the students have learned, and new terms or goals for future action for each letter of the alphabet.
Collaborative Drawings	• Students break up into groups of 3–4. Provide the students with a large piece of paper and writing instruments. If taking place in a virtual format, online tools such as Google Slides, Microsoft Teams Whiteboard, or a cloud-based shared document may be helpful. • Request that the students collaborate to create a drawing that represents their experience and learning throughout their work experience. • Ensure that all students have a personal piece included in the drawing that is relevant to their experience. This is particularly important given that the experiences of each student are likely to be quite different. • Each group is then required to describe their drawing for the class. Included in this discussion should be each individual student's personal part of the drawing, as well as the ways in which each of the personal aspects of the drawing connect with each other to address a higher order theme or topic.

GIVE IT A TRY!

Sample Reflection Exercises (cont'd)

Mind Map	• Select 1–3 words that directly relate to your work experience (e.g., your title, the organization, broad facts about the organization, mission for placement, skills involved) and write it in the middle of a blank sheet of paper. • Create lines coming from the centre of the paper where the key words have been placed. At the end of these lines, record thoughts on the placement, expectations of what might occur, challenges that are likely to be faced, ideas that you might experiment with, connections you would like to make and learning goals. • Complete this activity at the beginning, middle and end of the placement experience, and share/discuss or create a written analysis of the similarities, evolutions and differences among the three activities.
Interview	• Place students in groups of 2 or 3. • Create a draft of a semi-structured interview guide for students to use within the group. Encourage the students to generate their own questions as well. • Students take turns engaging in a guided reflection by interviewing their group members using these semi-structured guides. • The interviewer (or third group member) should record the responses. The recorded responses are given to the interviewee at the end of the activity so that they may reflect on their responses.
Professional Identity Development	• Provide each student with four circles on paper. The four plates are intended to represent a mask of how we are seen in different contexts: friends, family, school and work. • On each mask, have the students draw an image of how others see them in that context. • Discuss the contrast between the masks and how the student would like to be seen.
Object Share	• Have each student bring in an object that represents their work experience (e.g., how they felt about the work experience, their contribution, what they learned or what they will do next). • Have the students describe the object and discuss reasons for object selection.

Prospective Planning	• Pretend it is 10 years in the future.
	• Ask the students to answer the following questions:
	  • "How did your student work experience affect your life?";
	  • "What have you done since this experience?";
	  • "How have your actions impacted others?"

Adapted from Volpe-White (2015).

Assessment of Reflection

The final step in the reflection process is the integration of assessment. Suitable measures of assessment are critical for quality reflection and for attaining the learning goals and outcomes identified at the beginning of a learning experience (Ash & Clayton, 2009). Assessments must obviously align with the intended learning outcomes.

Assessment evaluates the learners' capacity to think in reflective ways relative to the defined learning outcome and the use of these reflections in practice (Kember et al., 2008). As discussed in Chapter 2: Purposeful Experience, assessing the quality of students' reflective activities (e.g., worksheets, essays, structured dialogue, acting) can be implemented through three broad, time-based techniques: summative, formative or integrative assessments (Ash & Clayton, 2009).

Since reflection activities are often personalized to each student and each WIL environment, it is important that scholars and practitioners have a means for assessment that is flexible enough to assess reflections on various topics and in various contexts and formats (Kember et al., 2008). A few frameworks commonly used to assess reflective activities are summarized below.

One method to assess the quality of students' reflections is to use the ***DEAL model*** and develop a rubric that details each level of reflection with corresponding expectations of quality (e.g., level one: beginner, to level four: advanced) (Ash & Clayton, 2009). Extending the use of the DEAL Model for Critical Reflection, Ash and Clayton (2009) suggest that the quality of the reflection process should be assessed using universal intellectual ***standards for critical thinking***, including: integration, clarity, accuracy, precision, relevance, depth, breadth, logic, significance and fairness.

Kember et al.'s (2008) questionnaire is used to determine the degree to which learners engage in reflective thought based on four major aspects, including:

- ***Habitual action:*** The learner engages in a particular context or situation in a way that requires minimal reflection (Kember et al., 2008).
- ***Understanding:*** The learner can recognize that learning has taken place (e.g., student understands material read in textbook) but does not integrate this knowledge with experiences in the field (Kember et al., 2008).
- ***Reflection:*** The learner can acquire theoretical knowledge, personalize this knowledge and implement it in practice (Kember et al., 2008).
- ***Critical reflection:*** The learner can demonstrate the ways in which their perspectives have shifted or transformed based on the learning experience (Kember et al., 2008).

Standards for Assessing Critical Thinking in Reflection

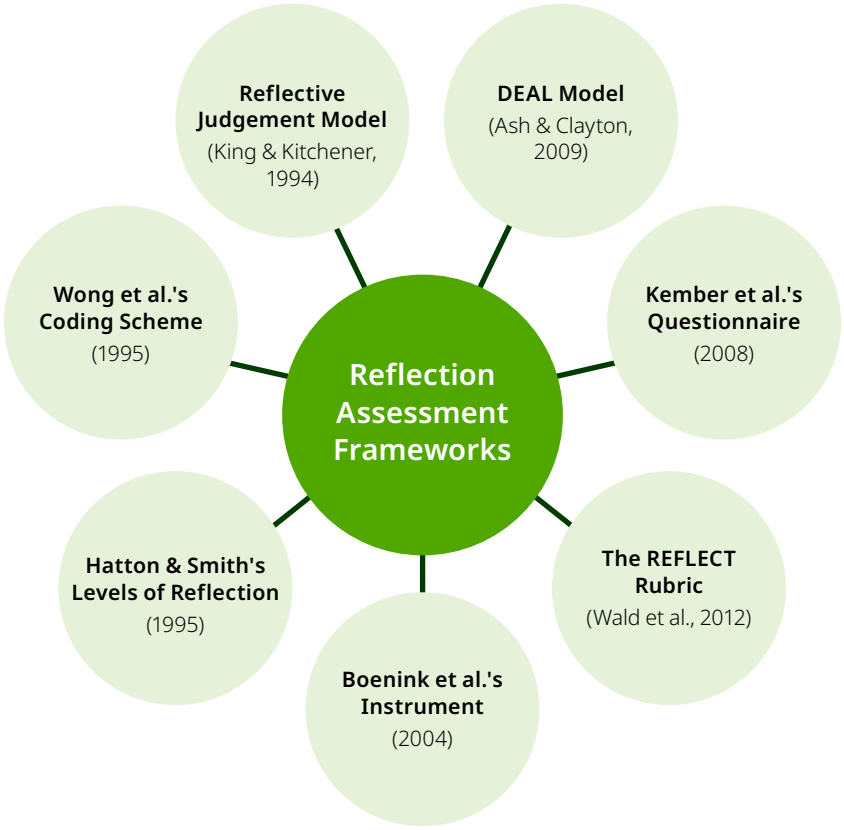
Standard	Description
Clarity	Expands on ideas; use of examples
Accuracy	Statements are factually correct
Precision	Specific information included
Relevance	Statements connect to main idea
Depth	Explains reasons behind conclusions
Breadth	Considers multiple perspectives
Logic	Reasoning makes sense
Significance	Attention to main focus
Fairness	Others' perspectives accurately represented

Adapted from Ash and Clayton (2009) and Paul and Elder (2001).

Another framework used to assess reflection is the Reflection Evaluation for Learners' Enhanced Competencies Tool, also called the ***REFLECT Rubric*** (Wald et al., 2012). This rubric was designed specifically for the assessment of reflective writings. It builds upon the work of Kember et al. (2008) and provides specific guidelines to assess the five main criteria:

- Writing spectrum;
- Presence;
- Description of conflict or disorienting dilemma;
- Attending to emotions; and
- Analysis and meaning making, across habitual action (non-reflection), thoughtful action or introspection, reflection, critical reflection, transformative reflection and learning and confirmatory learning.

Some of the other frameworks for assessing reflection include Boenink et al.'s (2004) observer-rated instrument for measuring reflection in medical practice, Hatton and Smith's (1995) levels of reflection, Mamede and Schmidt's (2005) nature of reflection in medical practice questionnaire, Wong et al.'s (1995) reflective journals coding scheme and King and Kitchener's (1994) reflective judgement model of intellectual development.



To avoid reflection fatigue and student disengagement, special consideration should be paid to ensuring variation in reflection exercises and assessment methods, and the progression of reflective practice.

GIVE IT A TRY!

Sample Reflection Assessment Tool

Assignment Instructions

The final reflection report is a critical part of your reflection on your work experience. Consistent with the DEAL Model for Critical Reflection, this report should include the following sections:

Description of work experience and intended learning outcomes

Provide a description of the worksite, including your roles and responsibilities. Describe what took place during your work experience by answering the following questions: What would a typical day entail? Who was and was not present? What did you and others do/not do? What did you see, hear, etc.? In this section, you should list your intended learning outcomes of the work experience and an explanation of how your learning goals may have changed over the course of your work experience (if applicable).

Examination of placement experience

Provide a critical examination of your work experience by answering the following questions:

- In what ways did I feel supported or valued throughout the work experience?
- How did this experience make me feel (positively and/or negatively) before starting the work experience and upon completion?
- In what ways did I succeed or do well?
- In what ways was I challenged?
- How has my perspective changed in light of my experience?

You will repeat this exercise three times. The first time you ask yourself these questions, think about your general work experience. Following your general examination of your work experience, choose a specific topic covered in the course (e.g., communication, decision-making, teamwork, leadership) and define the professional skill with relevant sources. Repeat the examination questions above, this time focusing on your experiences in the workplace related to the topic of focus. Be sure to provide specific examples. Repeat this exercise for two different course topics.

Articulation of learning

Provide a summary of your learning in the workplace by answering the following questions as they relate to: 1) your learning about professionalism (topics covered in class); 2) your learning about job specific knowledge and skills; and 3) your learning about yourself.

- What did I learn through my work experience?
- How did I learn it?
- Why is this learning important for me as a developing practitioner?
- What will I do in my future practice in light of this learning?

It is recommended that you organize your report using the headings listed in the assessment tool below. Be sure to use APA 7th Edition referencing (estimated word length: 3,000–4,000 words).

GIVE IT A TRY!

Sample Reflection Assessment Tool (cont'd)

Assessment Tool

The final reflection report will be graded /200 based on the following criteria:

Section	Value
Description of placement and intended learning outcomes	25
Examination of placement experience	75
Articulation of learning	75
Referencing and writing style	25

Criteria	1 – Poor	2 – Satisfactory	3 – Good	4 – Very good	5 – Excellent	Comments
DESCRIPTION OF PLACEMENT AND INTENDED LEARNING OUTCOMES	Score					_____ / 25
Clear description of the worksite						
Description of student roles and responsibilities at the worksite						
Description of what took place (e.g., tasks, interactions, observations)						
Description of intended learning outcomes						
Description of change in learning goals over time						
EXAMINATION OF PLACEMENT EXPERIENCE						_____ / 75
Examination of work experience						_____ / 25
Examination of feelings towards the work experience pre- and post-experience						
Examination of ways in which the student succeeded in the workplace						
Examination of ways in which the student was challenged in the workplace						

GIVE IT A TRY!

Sample Reflection Assessment Tool (cont'd)

Criteria	1 – Poor	2 – Satisfactory	3 – Good	4 – Very good	5 – Excellent	Comments
Examination of work experience (cont'd)						
Examination of how the student's thinking and perspective has changed						
Use of specific workplace examples						
Examination of workplace experience using professionalism construct #1						_____ / 25
Construct description with relevant sources						
Examination of understanding about the construct prior to the work experience						
Examination of how the student's thinking and perspective has changed						
Examination of strengths and challenges in applying this construct to practice at the worksite						
Use of specific workplace/classroom examples						
Examination of workplace experience using professionalism construct #2						_____ / 25
Construct description with relevant sources						
Examination of understanding about the construct prior to the work experience						
Examination of how the student's thinking and perspective has changed						
Examination of strengths and challenges in applying this construct to practice at the worksite						
Use of specific workplace/classroom examples						

GIVE IT A TRY!

Sample Reflection Assessment Tool (cont'd)

Criteria	1 – Poor	2 – Satisfactory	3 – Good	4 – Very good	5 – Excellent	Comments
ARTICULATION OF LEARNING						_____ / 75
Articulation of learning on job-specific knowledge and skills in the workplace #1						_____ / 25
Articulation of what was learned about job-specific knowledge and skills in the workplace						
Articulation of how this was learned (e.g., tasks, situations, feedback mechanisms)						
Articulation of why this matters						
Articulation of what the student will do in future practice in light of this learning						
Use of specific examples						
Articulation of learning on job-specific knowledge and skills in the workplace #2						_____ / 25
Articulation of what was learned about job-specific knowledge and skills in the workplace						
Articulation of how this was learned (e.g., tasks, situations, feedback mechanisms)						
Articulation of why this matters						
Articulation of what the student will do in future practice in light of this learning						
Use of specific examples						

GIVE IT A TRY!

Sample Reflection Assessment Tool (cont'd)

Criteria	1 – Poor	2 – Satisfactory	3 – Good	4 – Very good	5 – Excellent	Score	Comments
Articulation of learning about self						_____ / 25	
Articulation of what was learned about oneself through the workplace							
Articulation of how this was learned (e.g., tasks, situations, feedback mechanisms)							
Articulation of why this matters							
Articulation of what the student will do in future practice in light of this learning							
Use of specific examples							
REFERENCING AND WRITING STYLE						_____ / 25	
Appropriate sentence structure							
Appropriate grammar, spelling and punctuation							
Organization and use of headings and sub-headings							
Reference list completion and formatting (APA 7th ed.)							
Appropriate in-text referencing							

Rigorous reflection deepens students' knowledge and understanding and enhances personal and professional growth.

★ | **PROGRAM SPOTLIGHT**

University of Victoria's Indigenous Resource Hub (IRH)

We first introduced the University of Victoria Indigenous Resource Hub (IRH) in Chapter 2 as an example of student-centred supports. However, other elements of the IRH reflect the importance of sustainable WIL partnerships and program evaluation and development.

For example, the IRH offers virtual toolkits that help employers support equitable and inclusive environments for Indigenous students. This includes strategies for recognizing and addressing tokenism, an employer self-assessment worksheet to reflect on their commitments to EDI in their WIL program (see example on the next page) and strategies to connect with Indigenous students. This resource enables employers to participate in professional development that fosters student success and incorporates Indigenous values (Cameron & Rexe, 2022). Moreover, the IRH is a great resource for WIL practitioners to evaluate prospective employers' equitable (or inequitable) practices. The 'Interpreting Job Postings and Assessing Employers' worksheet is a helpful tool for WIL practitioners and may encourage important conversations to improve inclusive practice and maintain stronger relationships.

This resource may also be used to facilitate partnerships between institutions and employers. To promote knowledge sharing and collaboration, the IRH includes resources from other postsecondary institutions across BC that share the same goal of supporting Indigenous and other marginalized students in WIL. Updated on a rolling basis, the IRH is a focal point for inclusive and equitable WIL and highlights the value of Indigenous WIL models that offer non-Westernized and holistic approaches to support "high-quality partnership engagement" (Cameron & Rexe, 2022, p. 214). Employers and WIL practitioners who incorporate these qualities of Indigenous WIL intentionally create contexts supportive of "Indigenous students to participate in authentic, experiential, and immersive learning," ensuring a holistic experience for all (Eady et al., 2022, p. 131). More broadly, employers who utilize this approach are also scaffolding anti-discrimination and cultural competency training in their WIL programming (Nielsen et al., 2022), thereby increasing access to and equity in WIL placements for Black, Indigenous and other racialized students.

GIVE IT A TRY!

Employer Self-assessment Worksheet

This worksheet presents work-integrated learning (WIL) employers an opportunity to reflect on their active commitments to equity, diversity, inclusion, and the Truth and Reconciliation Commission's Calls to Action. We encourage employers to share their reflections, concerns and questions with WIL practitioners.

Employer	Work term dates	WIL/Co-op co-ordinator

What culturally relevant opportunities did you provide the WIL student?

During the work term, I...	Frequently	Sometimes	N.A.
... facilitated two-way feedback.			
... provided leadership opportunities.			
... offered networking opportunities.			
... recognized student contributions.			
... supported cultural expressions.			

I made the workplace welcoming by...

GIVE IT A TRY!

Employer Self-Assessment Worksheet (cont'd)

We respond to the 92nd Call to Action by...	
1. building meaningful relationships with Indigenous people and communities.	○
2. ensuring equitable access to training opportunities and employment advancement.	○
3. educating staff on Indigenous histories, including treaties and residential schools.	○

I demonstrated my commitment to the TRC's Call to Action 92 _____ by

As an employer, I...	Reflected on	Acted on
... Indigenous leadership and direction.	○	○
... contemporary Indigenous issues.	○	○
... experiences of workplace discrimination.	○	○

What advice would you give to another employer looking to hire an Indigenous student?	What does tokenism mean to you? Did you witness or combat this in the workplace?

Reflection Challenges

Despite the extensive body of work focused on the importance of reflection and how to address it in theory and practice, there are also some challenges and critiques of this practice that have been identified in the existing literature (Mann et al., 2009). Challenges to reflective practice include the potential for waning interest and reflection fatigue due to students' consistent engagement in these activities (Boenink et al., 2004) and time pressures that require attention to other activities in fast-paced environments, such as medical clinics (Mamede & Schmidt, 2005). This is important to consider when thinking about building continuous reflection into a WIL program or across multiple learning opportunities in an academic program. In order to avoid reflection fatigue and student disengagement, special consideration should be paid to ensuring variation in reflection exercises and assessment methods, and progression of reflective practice. With respect to critiques of reflective practice, Strawson (2004) suggests that there is a potential disconnect between the events as they occurred at the time and the retrospective reflection of the events used in these activities. In addition, some researchers propose that reflection activities might be met with negativity by the learner as these activities could be perceived as a disruption to familiar forms of knowledge acquisition and may pose a time constraint on other learning needs (Burnard, 1995; Dornan et al., 2002; Pearson & Heywood, 2004).

? | REFLECTION QUESTIONS

How can I improve my own use of reflection?

- Do I consciously or unconsciously use reflection in my everyday life?
- What strategies can I use to set aside time for reflection?
- How can I incorporate reflection into my role in co-ordinating the WIL program?
- What specific learning goal is my reflection guided towards?
- From what sources do I receive feedback on my reflection (e.g., friends, co-workers)?
- What are three ways in which I can enhance reflection in my everyday life?

How can students' reflection be enhanced?

- Do the students understand and value the purpose of reflection?
- What learning goals should the students' reflections be guided towards?
- Where will the students reflect on their work experiences?
- How frequently will the reflection occur?
- Who will participate in the reflection process?
- What reflection exercises or questions may be used to facilitate the reflection?
- How will the students demonstrate their reflective thinking? How will this be assessed?
- How can reflection fatigue be mitigated?

Reflection activities are most effective when designed to achieve an intended outcome and used sequentially to build on one another.

Summary of Effective Practices for Facilitating Reflection

3

Activities that stimulate reflection have an essential role to play in fostering knowledge transformation in WIL experiences (Craig et al., 2022; MAESD, 2017; Sator et al., 2021; Sattler, 2011).

Definitions of reflection include:

- understanding one's own philosophy and re-evaluating that philosophy in light of experience (Nolan, 2008);
- learning that tends to occur through analysis of personal and professional experience (Bolton, 2001; Dewey, 1910; Kim, 1999; Nolan, 2008); and
- retrospection about experience, feelings or knowledge that provide a new understanding (Kember, 2001; Schon, 1983; Sullivan & Rosin, 2008).

Key terms related to reflection:

- ***Critical reflection***, which strengthens basic reflection by interrogating personal assumptions, considering other perspectives and connecting theory to experience.
- ***Reflection-in-action***, or spontaneous reflection used to adapt to current situation.
- ***Reflection-on-action***, a structured reflection prior to and following an experience.
- ***Single-loop reflection***, or connecting experience to theory.
- ***Double-loop reflection***, which considers the influence of values, attitudes and actions in the reflection on experience.
- ***Surface reflection***, or extrinsically motivated reflection based on descriptive aspects of experience.
- ***Deep reflection***, which is intrinsically motivated reflection based on practical application to self and real-world context.

Antecedents to high-quality reflection include engagement in unfamiliar, new or complex experiences and the willingness of an individual to engage in reflection activities (e.g., Beard & Wilson, 2013; Dessel & Corvidae, 2016; Rogers, 2001).

The environment should also be designed to foster the autonomy of the learner, relevant challenges, consistent and appropriate assessment and feedback, collaboration with peers and colleagues and opportunities for reflection throughout WIL (Eyler et al., 1996; Jackson et al., 2017; Seibert & Daudelin, 1999).

Critical reflection supports student and practitioner understandings of their positionality in the context of the WIL program. This helps participants to challenge biases and consider power structures and opportunities for accessibility and inclusion within WIL (Eady et al., 2022; Dessel & Corvidae, 2016; Jackson et al., 2017).

Reflection activities should consider the following (e.g., Ash & Clayton, 2009; Bringle & Hatcher, 1999; Dessel & Corvidae, 2016; Rogers, 2001):

- students' personal experiences and growth;
- the connection between theory and practice;
- proper alignment between activities and learning outcomes;
- goal setting and achievement;
- sensitivity to contexts in which WIL occurs; and
- opportunities for inductive (e.g., experience followed by learning) and deductive (e.g., academic learning followed by experience) learning.

Ash and Clayton's (2009) DEAL Model for Critical Reflection is a guiding theoretical framework for strategic engagement in the reflective process. The framework describes reflection as a three-step process made up of:

- a ***description*** of learning experiences in an objective and comprehensive manner;
- the ***examination*** of learning opportunities in light of previously identified goals or expected outcomes of learning; and
- an ***articulation of learning***, which acknowledges the learning experience that has occurred and establishes goals for future action in the learning process.

Rigorous reflection is key during WIL because it:

- deepens students' knowledge and understanding;
- enhances personal and professional growth;
- generates awareness of the origins and importance of learning experiences;
- helps develop valuable life skills (e.g., decision-making, problem solving);
- deepens understanding of one's identity; and
- may strengthen new or pre-existing relationships among stakeholders.

Tips for instructors to promote high-quality student reflection include (Rogers, 2001):

- encourage detailed reflections through use of descriptive vocabulary;
- ensure appropriate timing;
- pay attention to students' individual learning styles;
- provide guiding questions or activities; and
- ensure the use of an appropriate structure in learning environments.

Ash and Clayton (2004) recommend a three-step process for designing critical reflection:

1. Determine desired learning goals and outcomes.
2. Design reflection so as to achieve those outcomes.
3. Integrate formative and summative assessment into reflection process.

Examples of reflection exercises include pre- and post-experience surveys, structured dialogue (e.g., mentor-to-mentee, in-class discussion), writing activities, acting, visual arts and behaviour (e.g., Ash & Clayton, 2009; Thompson & Thompson, 2008).

Assessment of reflection can be carried out through summative, formative and integrated assessments (Ash & Clayton, 2009).

Examples of assessment models for reflection include Ash and Clayton's (2009) DEAL model, Kember et al.'s (2008) questionnaire, the REFLECT rubric (Wald et al., 2012), Boenink et al.'s (2004) observer-rated instrument, the levels of reflection (Hatton & Smith, 1995), the reflective journals coding scheme (Wong et al., 1995) and the reflective judgement model (King et al., 1994).

WIL practitioners and employers must also engage in consistent reflection to maintain equitable practice throughout the WIL experience (Eady et al., 2022; Jackson et al., 2017; Nielsen et al., 2022).

There have been some challenges and critiques surrounding reflection identified in the existing literature, including:

- the potential waning interest or reflection fatigue due to consistent engagement in reflective activities (Boenink et al., 2004);
- time pressures in fast-paced environments (Mamede & Schmidt, 2005); and
- the potential disconnect between experiences as they occur in the WIL environment and the retrospective reflection of these experiences (Strawson, 2004).

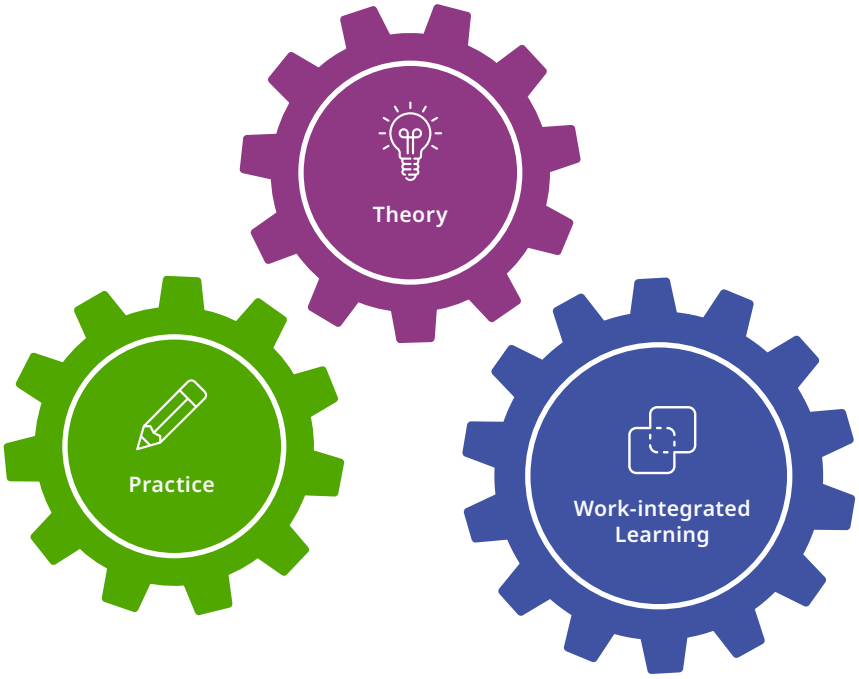
4 Integration of Theory and Practice

Focusing on the abstract conceptualization learning mode, this chapter reviews effective practices for facilitating students' integration of theory and practice in WIL, including challenges, approaches and recommendations for enhanced integration. The importance of bi-directional integration is discussed, as well as the shared responsibility between the student, workplace supervisor and the academic instructor/co-ordinator. The topic of self-directed learning is reviewed as one way to promote students' abstract conceptualization, along with recommendations for teacher-facilitated integration of theory and practice. The chapter concludes with a critique of the erroneous division between theory and practice, particularly in WIL contexts.

Integrating Theory and Practice in the WIL Experience

As cited in Brown (2011), good practice is not without good theory and good theory cannot be without good practice.

The strategic involvement of all stakeholders in the WIL partnership, as well as re-conceptualizing and organizing WIL purposefully to unite scientific knowledge and professional practice, is vital to effective student learning (Billett, 2015; Bulk et al., 2023; Fleming & Martin, 2007; Martin et al., 2010; Orrell, 2011; Smith et al., 2014).



❝ | SUCCESS STORY

OCAD University's ArtWorksTO Program

OCAD University's ArtWorksTO program is aimed at facilitating greater access to professional experiences, skill building and networking in the media arts industry for BIPOC and 2SLGBTQ+ emerging creatives. From 2020–2022, the program supported 61 students in a paid WIL experience, where they were guided through real-world experiences in the creative arts. Students completed communications projects (such as short films, posters, flyers, videos and social media campaigns) for programs and services offered by ArtWorksTO's project partners.

Applicants to the program must identify as BIPOC and/or 2SLGTBQ+, which reflects the intentional focus on supporting historically marginalized groups. Deliberately supporting students across sexualities, genders and race demonstrates the program's commitment to student intersectionality by creating access to quality experiences (Bulk et al., 2023; Tunny et al., 2022). This support is also demonstrated through matching ArtWorksTO participants with advisors who provide one-on-one mentorship and group workshops focused on skill building for careers in the creative arts, as well as building community through collaborative projects.

ArtWorksTO alumni remain connected with the program and gain important career skills, such as presenting, negotiating and understanding their worth as a creatives and entrepreneurs (Neighborhood Arts Network, n.d.). Furthermore, offering a variety of supports and learning experiences demonstrates WIL programming that "makes room for updated intersectional approaches" (Thakur, 2021, p. 14) and accommodates the "diverse needs, preferences, and circumstances of students" (Mackaway & Chalkley, 2021, p. 230).

Challenges in Integrating Theory and Practice

Previous research (Boud & Symes, 2000; Stirling et al., 2014) has indicated that one of the biggest challenges facing WIL today is the ability to facilitate and support students' integration of classroom curricula into practice, and vice versa. According to Ruhanen (2005), this challenge is precipitated by WIL programs feeling the pressure to balance the theoretical base of the academic program at the postsecondary institution "with the practical skills required by the industry that will ultimately employ the students on graduation" (p. 34). As a result, the nexus between theory and practice (Kolb, 1984) that should exist in WIL programs is arguably one of if not the most challenging mode of Kolb's experiential learning theory for faculty and staff to accomplish.

An additional challenge in bridging this gap is that there is little empirical research about how theory learned in the classroom is integrated into the workplace during the structured work experience, and even less is known about the transfer of knowledge and experiences from the workplace back into the classroom (Eames & Coll, 2010).

Despite these challenges, a number of approaches and recommendation are reviewed below based on the limited research that does exist on effective means for integrating theory and practice in the student work experience.

Approaches for Integrating Theory and Practice

The integration of theory and practice in WIL should be thought of as bi-directional, with theory informing practice and practice informing theory.

There are four different approaches through which theory and practice may be integrated, including the theory-informed-by-practice approach; the practice-informed-by-theory approach; the concurrent approach; and the scaffolding approach (adapted and expanded from Brew & Kottler, 2007).

Theory-informed-by-practice Approach

In the first approach for integrating theory and practice in the structured work experience, students may gain practical experience and work on building practical skills before studying the underlying theory of the field and practice. In this approach, "It is reasoned that these professional behaviours are so universal among practitioners that it is not necessary to understand their theoretical base before you begin practicing them" (Brew & Kottler, 2007, p. 63). This approach may apply best to more universal learning outcomes, such as skills related to communication and decision-making, but can also be used for specific learning outcomes related to the field of practice (e.g., assessment, measurement, practice). In this approach, practical experiences that occur in the workplace setting are used to inform theoretical learning. For example, as part of a student's field experience working as a social worker for an adoption agency, a student may be challenged by a particular case in which a parent and child are unable to bond. After months of working with the family, the student is introduced to various challenges faced in the adoption process. This practical experience is applied to the student's future coursework and serves as motivation for an in-depth review of literature on grieving and the feelings of loss around adoption.

Practice-informed-by-theory Approach

The practice-informed-by-theory approach requires students to study theories before application and practical experience (Brew & Kottler, 2007). Theoretical or conceptual knowledge can thus be applied by the students and/or practiced in the workplace setting. For example, in a human anatomy internship program, students may be required to complete an introductory or advanced anatomy course as a prerequisite. In the internship, the students are then required to apply their previous learning of anatomy and anatomical theory to enhance their practice by conducting cadaver prosection while working under the supervision of an experienced anatomist.

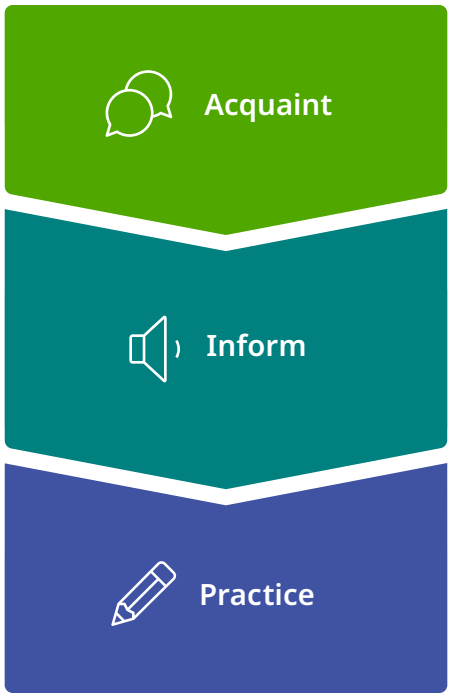
Concurrent Approach

In the concurrent approach, students are studying the theoretical material at the same time as they are engaging in the practice of the material in the workplace. This can be done through a concurrent theory course, by embedding the workplace experience within a course that exposes students to both theory and practice at the same time or through the learning of both theory and practice at the worksite.

Scaffolding Approach

The final approach to integrating theory and practice is the scaffolding approach. In this approach, there is a deliberate scaffolding of students' exposure to theory and practice so that there is a continual progression of both theory and practice from simplistic to advanced, and a deepening of the integration between the theory and practice in the work experience. Through the scaffolding approach, students may apply theory to practice or practice to theory. Scaffolding of theory and practice could occur within a work placement that extends across a longer period of time or across multiple work experiences throughout an academic curriculum.

One model that may be useful in applying the theory-to-practice approach is Collingwood's (2005) ***Three-Stage Theory Framework*** for relating theory to practice during practice-based learning for social work. The framework is made up of three progressive stages in which students access theory required for social work practice. In the first stage, students are introduced to the workplace setting and clients. At this stage, the students use previous theoretical knowledge to locate themselves within the workplace setting and assess what is going on. In the second stage of the framework, students use theory to inform themselves or others of what is going on (and why) and to inform the development of potential intervention strategies. In the third stage, students build on their use of theory to identify and practice the specific knowledge, values and skills underlying the service of the placement agency.

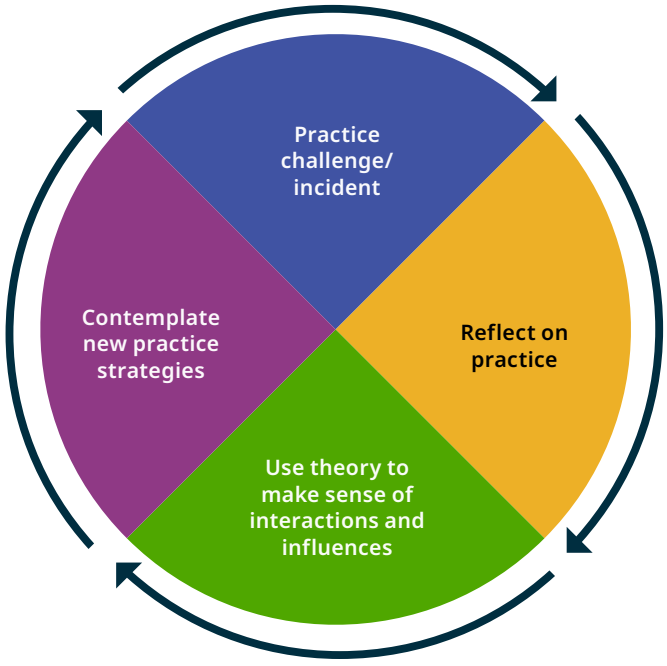


According to Munson (1993, as cited in Beder, 2000), there are three ways in which a workplace supervisor could facilitate the application of theory to practice:

1. Discuss the theory and help the student connect the theoretical material with the practice.
2. Translate the conceptual material into more practical language and use practical examples when explaining it.
3. Abandon the conceptual material. Present the practical material on its own and check that the student has made the connection.

Another model that may be applied to all of the approaches to integrating theory and practice is Fook and Gardner's (2007) ***Model for Critical Reflection***. Applying this model, students engage in a cyclical process in which they experience a problem or incident in their practice at work, they reflect on this practice (see Chapter 3: Reflection), they draw upon theory to make sense of the interaction and influencing factors and they contemplate new practice strategies moving forward. Notably, several similarities exist between this model and Kolb's (1984) cycle of experiential learning.

Integrating Theory and Practice: Applying the Model for Critical Reflection



Recommendations for Enhanced Integration

In addition to the approaches for integrating theory and practice in the structured work experience, theorists have offered several recommendations for effective integration. According to Martin et al. (2010), the integration of learning and practice throughout the WIL experience is a shared responsibility between students, academic faculty/staff and the workplace supervisors/employers. Specific roles for integrating theory and practice, as outlined by Martin et al. (2010), include:

- faculty/staff should include integration opportunities in structured work experiences through explicit learning outcomes and formal assessments;
- students have the responsibility to integrate what they have learned in the workplace and relate it to or incorporate it into the next phase of academic learning; and
- the workplace supervisor/employer holds the responsibility of facilitating student learning by selecting, executing and giving feedback on students' work-related activities.

A three-way partnership between student, workplace and postsecondary institution thus requires all parties to assume distinct responsibilities, execute specific functions and realize benefits in order to facilitate meaningful theory–practice exchange in the WIL experience (Fleming & Martin, 2007; Martin et al., 2010).

RECOMMENDATIONS AND GUIDELINES

Recommendations for integrating theory and practice in the WIL experience include:

- View the integration of theory and practice as a shared responsibility of faculty/staff, students and the workplace supervisor
- Clearly define student learning outcomes and use them to guide integration of theory and practice
- Develop a plan with specific roles and responsibilities for integrating theory and practice
- Approach the work setting as an educational platform for enhancing both theoretical knowledge and practice

Adapted from Billett (2015), Cameron (2006), Cooper et al. (2010), Fleming and Martin (2007), Jonsson et al. (2014), Martin et al. (2010) and Orrell (2011).

Supporting the above recommendation, Orrell (2011) explains the importance of ensuring that all stakeholders are aware of student learning outcomes, including the core theoretical content or field-specific skills that should be integrated into the work experience. Taking this one step further, Orrell (2011) recommends developing a deliberate plan to put into action (following the achievement of a goal) that reintroduces theoretical or practical aspects in order to consolidate the learning that occurred in the field.

Another recommendation posed in the literature is to re-conceptualize the way in which we conceive of WIL. Instead of 'work-integrated learning' or 'WIL,' Jonsson et al., (2014) propose 'learning-integrated work' or 'LIW.' This change calls for an approach integrating "scientific knowledge and professional values with practical knowledge and clinical competence" (p. 91) and a learning process that encompasses organizational, social and personal factors that contribute to a student's experience of learning through work. Similarly, Cooper et al. (2010) suggest the phrase "working to learn," reinforcing the work environment as a source of learning and an educational platform for both the integration of theory and practical work experience, as well as the generation of new learning in and through the work experience.

Cameron (2006, as cited in Orrell, 2011) recommends the creation of a ***three-dimensional learning spaces landscape*** that entails "the theory/practice landscape; identifying and mapping the wide variety of spaces and places where student engineers encounter theory and practice; [and] developing alignment strategies for curriculum renewal and innovation" (Orrell, 2011, p. 23). The three-dimensional learning spaces landscape:

> ... takes into account time, space, engagement, affordances and cost, which can be used in three ways. It can map current course and curricula to show immediately the space/places the curriculum design crosses. It can assess the character of existing curricula, and explore the possibilities of curricular change and value adding to existing curricular design methodologies. ... [And] it can be used as an awareness tool for disseminating the character of learning spaces through a cohesive framework. (Orrell, 2011, p. 38)

Focusing specifically on mapping the intersections between theory and practice in

WIL, adapted and expanded from Cameron (2006, as cited in Orrell, 2011), it is proposed that the following dimensions be outlined:

- ***Intersection content areas:*** The areas in which curriculum content intersects and works to foster alignment among concepts (e.g., field of study/practice).
- ***Intersection knowledge/values/skills:*** Pinpoint which specific knowledge, values or skills of the course/curriculum could be supported or complemented by specific tasks identified for the student(s) in the workplace (e.g., student will explore the notion of civility while organizing a charity drive for the workplace organization).
- ***Interdisciplinary connections:*** Facilitate broad and interdisciplinary learning philosophies for WIL (e.g., generate a learning philosophy for the work experience that integrates biophysical, psychological and sociological learning perspectives).

Furthermore, Billett (2009) suggests the following recommendations for integrating practice-based work experience with higher education curricula, including:

- articulating clear learning outcomes so that experiences can be aligned to secure learning;
- organizing a staged engagement with practice-based experiences;
- aligning work duration with educational purposes (e.g., orientation versus skill development);
- acknowledging practice settings as providing experiences to acquire knowledge, skills and attitudes, not merely as places to practice; and
- deliberately planning preparatory and consolidating experiences pre- and post-work experience.

Building on these recommendations, Billett (2015) outlines a number of pedagogical practices for integrating practical experience within higher education courses before, during and after the work experience. Before the students begin their work experience, it is recommended that the learning outcomes be clearly articulated; students should be oriented to their roles and the roles of others in facilitating their learning experience; and students should be adequately prepared to be proactive learners (Billett, 2015). During the work experience, it is recommended that students work with and be effectively guided by experienced workers; students should identify and engage fully in work tasks related to their learning goals; and students should be encouraged to engage with peers to inform, consolidate and extend their learning (Billett, 2015). Finally, after the work experience, students should be provided with the opportunity to share their learning with others and should identify links between what they have been taught in their academic program and the practice in the workplace (Billett, 2015).

RECOMMENDATIONS AND GUIDELINES

Pedagogical Practices for Integrating Work Experience within Higher Education Courses

Before Work Experience	During Work Experience	After Work Experience
• Orient students to the requirements for effective engagement in the practice setting. • Clearly outline the purpose of the work experience. Include the responsibilities of the student, workplace supervisor and course instructor/program co-ordinator. • Prepare students to be proactive learners. • Provide students with any procedural capabilities they may need (e.g., skills). • Prepare students for potential confrontations in the workplace.	• Ensure students work effectively with and are guided by experienced workers. • Encourage students to identify and engage fully in work tasks linked to intended learning outcomes. • Facilitate student engagement with peers to inform, consolidate and extend learning.	• Provide students with an opportunity to share their learning with others. • Promote students' identification of links between what they have been taught in their program and the practice in the workplace. • Encourage criticality of learning.

Adapted from Billett (2015).

? | REFLECTION QUESTIONS

How can the integration of theory and practice be enhanced in our WIL program?

- What are the potential points of intersection between theory and practice and between the academic curriculum and the structured work experience?
- How can we work with the workplace supervisors and students to better identify the potential points of intersection?
- Is everyone (i.e., student, workplace supervisor, course instructor) aware of the intended student learning outcomes of the WIL program?
- What are the roles and responsibilities for the student, workplace supervisor and course instructor/program co-ordinator in facilitating the integration of theory and practice?
- How do identity and lived experience influence our understanding of theory and practice?
- How can we work with students to ensure that their identities and lived experiences are accounted for when enhancing WIL programs?

How can students' application of theory to practice be enhanced?

- What resources could we provide workplace supervisors so that they can best assist students in applying theoretical knowledge to practice in the workplace?
- What theoretical content should the students engage with prior to or concurrently with their work experience so that the integration of theory and practice in the structured work experience may be enhanced?
- In what ways can students be encouraged to reflect critically on their work experiences in light of theory previously learned in their academic program of study?

How can students' application of practice to theory be enhanced?

- Is there an opportunity for students to select a topic to study in more detail based on questions that arose during the students' work experience?
- Is there a project that can be built into the work experience that would promote the study of a particular theory as informed by practice in the workplace?
- What opportunities may exist at the academic institution for students to produce and advance theory through their practical work experience (e.g., research projects)?

★ | PROGRAM SPOTLIGHT

World Education Services (WES) Immigrant Youth Internship Program

WES' work supporting immigrant youth transitions to the labour market encouraged partnerships with other organizations, which served as the catalyst to launching their internship program. Through their partnership with the Canadian Council of Youth Prosperity and various other stakeholders and workforce development actors across industries and regions, they formed a National Roundtable on Workforce Development for Immigrant Youth (Jones, 2021). The knowledge gained from these partnerships was informative for WES because it highlighted emerging research on immigrant and refugee youth in Canada and encouraged learning equitable and inclusive methods to support this underrepresented group in WIL. Since then, the Immigrant Youth Internship Program has made great strides in their equity-focused hiring approach. For instance, WES managers have undergone inclusive interviewing training and practice. This is a critical step in the WIL experience because it helps employers distance themselves from discriminatory selection criteria, which are often reflected in the "values that guide contemporary corporate hiring practices" (Cukier et al., 2018, p. 17). To address the challenge of family obligations that requires the interns to have flexible working hours, the WES team develops a schedule that accommodates the intern's needs while still guaranteeing an engaging WIL experience. This employer initiative offers an example of how to apply an intersectional lens to WIL programming. By acknowledging students' other commitments, "creating space for diversity" (Thakur, 2021, p.15) and offering suitable accommodations, the WES team utilized their understanding of student identity to ensure an encouraging and accommodating work experience.

Reconceptualizing and organizing WIL purposefully to unite scientific knowledge and professional practice is vital to effective student learning.

Facilitating the Theory–Practice Nexus Through Self-directed Learning

In order to support and facilitate the connection between theory and practice, the focus of postsecondary education has shifted from a traditional approach, in which the instructor or teacher is exclusively responsible for student learning, to an approach that values both student-led and teacher-led learning (Barr & Tagg, 1995). Each approach to learning is explored below, along with the ways in which they can be implemented to support the connection between theory and practice.

According to Kolb and Kolb (2005), creating an environment in which students "take control of and responsibility for their learning can greatly enhance their ability to learn from experience" (p. 209). One avenue for creating this type of environment is by facilitating self-directed learning in the structured work experience. According to Garrison (1997), self-directed learning is defined as "an approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) processes in constructing and confirming meaningful and worthwhile learning outcomes" (p. 18). In a WIL program, students may partake in structured work experience in a variety of workplaces, thus making it challenging for any one individual to make the connections between theory and practice for each work experience. Instead, application of a self-directed learning approach to WIL may be the best way to facilitate the connection between theory and practice in the structured work experience, as the autonomous nature of this approach and the independence of the student in directing their own learning allows for enhanced connections with theory relative to the diverse workplace practices and student work experiences. According to Billett (2015), in practice-based learning, "there is a greater dependency on the student as a learner who is able to engage independently and direct and manage their own learning in these circumstances. That in some ways, is necessary because it is very much a student rather than teacher led learning process" (p. 29). Supporting this idea, other theorists have suggested that adopting a self-directed learning approach is particularly useful throughout new experiences within diverse environments and is most effective in simulated or experiential contexts, such as the structured work experience (Garrison, 1997; Keeton et al., 2002; Lorello et al., 2014).

It is important to note that while students direct and manage a large part of this process, educators should assist students in navigating areas of importance in particular fields of study (Schwiebert et al., 1991). For example, educators might assist students in recognizing significant theoretical frameworks to guide their self-directed learning in a particular circumstance encountered in their work experience.

Benefits of Self-directed Learning

There are several benefits to a self-directed learning approach. From a broad perspective, the self-directed approach has been shown to enhance the effectiveness of the learning process, as well as the depth and breadth of the material that is learned (Garrison, 1997; Keeton et al., 2002; Knowles, 1975; Schwiebert et al., 1991). Aligned with the idea that self-directed learning enables students to make enhanced autonomous connections between theory and practice, it has been suggested that when students are responsible for their own learning, they often employ critical thinking skills, learn to transfer skills in various contexts, encounter various perspectives, possess freedom over content and consider the potential impact that their learning could have on broader social issues (Montrose, 2002; Race, 1990). Additionally, addressing the concrete experience learning mode in Kolb's experiential learning theory, a self-directed approach would assist in designing learning experiences through the recognition of the learner's needs, development of realistic learning outcomes and plans for the experience, identification of required and available resources, and measures for appropriate assessment of learning (Knowles, 1975; Sparrow & Pearson, 1985). Implementation of a self-directed learning approach tends to be most efficient in environments where self-directed learning skills are helpful and necessary (Walsh, 2014). Furthermore, student engagement in this process of learning typically garners feelings of ownership over goals and outcomes (Patterson et al., 2002).

Theoretical Framework of Self-directed Learning

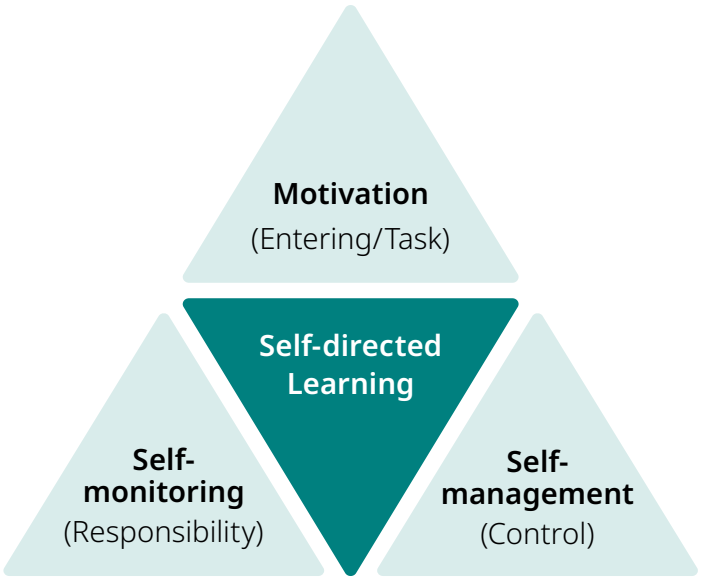
In order to provide helpful tips for creating an environment conducive to self-directed learning, it is important to recognize theoretical frameworks that guide this approach, such as Garrison's (1997) ***Self-directed Learning Model***, which includes three overlapping dimensions: self-management, self-monitoring and motivation (Garrison, 1997). Each aspect of the self-directed learning model is discussed in turn below.

Self-management

From a broad perspective, self-management emphasizes the social and behavioural aspects that are related to the learning approach (Garrison, 1997). Self-management is defined as the "enactment of learning goals and the management of learning resources and support" (Garrison, 1997, p. 22). The primary function of self-management is to determine the contextual circumstances associated with the self-directed learning process (Garrison, 1997). Specifically, self-management attends to the following activities:

- oversight of goals associated with the learning process (e.g., student or instructor's procedural measures for managing goals);
- methods required and utilized for attaining these goals;
- resources available to the learner; and
- modes of assessment required to evaluate the learning experience.

Other examples of contextual conditions created by the learner could include determining one's own learning goals or sharing input when creating an effective learning plan for attaining these goals (e.g., flexible schedule for completing activities). It is important to note that management of learning must account for and balance both the common standards in education (e.g., knowledge understood to be valuable) and knowledge acquisition that is personally significant to the learner (Garrison, 1997). For instance, a student in psychology may be responsible for learning appropriate theories of lifespan development (i.e., common standard for a student in psychology) and relate this learning to their specific interest in working with children who have learning disabilities (i.e., personally significant learning).



Dimensions of Self-directed Learning

(Adapted from Garrison, 1997)

Self-monitoring

Self-monitoring is defined as the "process by which the learner takes responsibility for the construction of personal meaning (e.g., integrating new ideas and concepts with previous knowledge)" (Garrison, 1997, p. 24). Students should engage in self-monitoring throughout a learning experience, as it prompts them to consider aspects of their learning experience in light of their pre-determined goals and expectations (Young & Baker, 2004). The process of self-monitoring should attend primarily to students' ability to achieve pre-determined outcomes, but also recognize and document the unanticipated practices/procedures and outcomes of an experience in the field (Young & Baker, 2004). An individual's ability to self-monitor relies on engagement in extensive reflection and assessment throughout a variety of circumstances, and solidification of these reflections through collaboration with peers and colleagues (Candy et al., 1985; Garrison, 1997). Solidification of the learner's reflections and meaning making requires an appropriate balance between internal monitoring (e.g., assessing oneself) and external monitoring (e.g., feedback from instructor or mentor) (Garrison, 1997). Self-monitoring can be facilitated through the following activities (Montrose, 2002):

- journaling or writing activities (e.g., progress essays and reports);
- update meetings with instructors, mentors or WIL administrators; and
- structured conversations with fellow WIL students or classmates.

Motivation

Motivation is the "perceived value and anticipated success of learning goals at the time learning is initiated" (Garrison, 1997, p. 26). As part of the Self-directed Learning Model, Garrison (1997) differentiates between two aspects of motivation. The first, ***entering motivation***, refers to the commitment an individual makes to a learning goal and the plan of action required to achieve the goal (Garrison, 1997). This motivational process is perceived as the amalgamation of character, objectives and emotions (Thompson, 1992). The second aspect, ***task motivation***, is defined as an individual's inclination to pursue the learning goal(s) they have established in their area of interest (Garrison, 1997). Task motivation requires students to actively pursue their goals and maintain effort to achieve those goals over time (Garrison, 1997). In order to accomplish a self-directed learning approach, students should demonstrate both entering and task motivation.

Previous research has explored the diverse perspectives regarding the ways in which students can be motivated in educational settings (Murphy & Alexander, 2008). From this research, Pintrich (2003) has devised an outline of some of the most significant generalizations for motivating student learning:

- Students can be motivated by perceived competence and feelings of self-efficacy in a given area.
    - When students anticipate doing well on a particular task, they often apply increased effort, remain resilient when challenged and execute the task more efficiently (Eccles et al., 1998; Pintrich & Schunk, 2002).
- Students are typically motivated by perceptions of control over learning and behaviour.
    - Students who feel they have control over their knowledge acquisition often have more enriching learning experiences (Pintrich & Schunk, 2002; Skinner et al., 1998).
- Increased enthusiasm in an area of learning can motivate students.
    - Enthusiasm can be generated through personal interest (i.e., continuous enjoyment or curiosity about an area) and/or situational interest (i.e., attraction to an activity based on the fascinating task or a unique context) (Eccles et al., 1998; Pintrich & Schunk, 2002).
- The personal significance of a task tends to motivate students.
    - Students can be motivated by activities that they deem to be important or those they feel meet their personal needs (Baker, 2012; Pintrich, 2003).
- Students are often motivated by personal goals.
    - These include both social goals, such as networking with new employers or establishing new friends in the work environment, and academic goals, such as achieving a high grade in the WIL course (Pintrich, 2003).

Each of these core motivational processes is supported by the Self-directed Learning Model; Garrison (1997) explains that a student is more likely to enter the motivational stage of the model if their learning goals are perceived to be realistic, achievable and important to them. It is important to recognize the need for integration among the three modes (self-management, self-monitoring, motivation), as each mode is enhanced when the learner is proficient in the other two modes (Garrison, 1997). For example, motivation is enhanced when an individual feels they have control over and responsibility for a learning task (Garrison, 1997).

Other aspects identified as important in the process of self-directed learning include (Brockett & Hiemstra, 1991; Candy, 1991; Patterson et al., 2002; Young & Baker, 2004):

- working collaboratively with peers and colleagues (e.g., assistance in goal construction, sharing ideas and feedback);
- appropriate assessment measures (e.g., assessment by peers or instructors) and adequate self-assessment;
- opportunities to appraise the organization/agency at the completion of the work experience;
- continuous reflection; and
- critical thinking.

KEY TERMINOLOGY

Self-management is the enactment of learning goals and the management of learning resources and support.

Self-monitoring is the process by which the learner takes responsibility for the construction of personal meaning (e.g., integrating new ideas and concepts with previous knowledge).

Motivation is the perceived value and anticipated success of learning goals at the time learning is initiated.

(Garrison, 1997, pp. 22–26)

Challenges of the Self-directed Learning Approach

Despite the well-documented potential for self-directed learning (Hewitt-Taylor, 2001; Lunyk-Child et al., 2001), this approach comes with challenges for students, WIL co-ordinators and instructors. Examples identified in the extant literature include:

- students' potential anxieties or unwillingness to embrace a self-directed approach due to a perceived lack of structure (Burnard, 1991; Miflin et al., 2000; Lunyk-Child et al., 2001);
- relevant integration of technology (Fischer & Scharff, 2010; Harvey et al., 2017);
- timing of the introduction to self-directed learning (e.g., adapting to this approach in first year versus fourth year; O'Shea, 2002);
- feasibility and implementation in particular fields of study or technical skills-based programs (e.g., nursing, medicine; O'Shea, 2002); and
- ability to provide the student with appropriate learning support and guidance related to their specific learning goals and plans (Fischer & Scharff, 2010; Thakur, 2021).

Furthermore, it is important to recognize that some tasks and goals may benefit from more structured, teacher-led learning environments instead of self-directed approaches (Gawad et al., 2014; Rosser et al., 2007; Zeng et al., 2010). For instance, findings from a study conducted by Abbas et al. (2015) demonstrated that among a group of medical students, learners with supervised training made improvements to particular surgical skills (i.e., peg transfer times) faster than students who engaged in a self-directed approach to learning the task.

GIVE IT A TRY!

Reflection Questions for Students: Self-directed Learning

Self-management	• What do you intend to learn from your structured work experience? • How do you plan to achieve these learning outcomes? • What resources and measures of support do you have available to you? • What support and assistance are provided to you by your workplace supervisor? • What are the norms and standards for professional practice within the work organization? • What expectations do you have for yourself in the workplace?
Self-monitoring	• How will you measure the success of your practice in the workplace? • How will you receive feedback on your ongoing performance in the workplace? • What feedback have you received? • In what ways are you succeeding in the workplace? • In what areas do you feel challenged?
Motivation	• What topics/material covered in previous courses may relate to your practice in the workplace? • What skills and abilities do you bring with you to your structured work experience? • What personal interests do you have that apply to your work experience? • What are the benefits of completing your professional placement? • How successful do you expect to be? • What actions can you take to enhance the collaboration between you and your workplace supervisor in directing your learning in the workplace?

❝ | SUCCESS STORY

Niagara College

During college, I completed a two-week placement for my dental assisting diploma. The first few days of the placement, I observed dental procedures and the process they used to sterilize equipment. This is a very important process for dental assistants. I also observed the assistants as they dealt with patients on their own, such as taking X-rays for the dentist and preparing the patient for dental procedures. After the first week, I assisted the dentist with his procedures. During our interactions, the dentist taught me how he prefers to pass his instruments and the types of products he prefers to use in each procedure. Getting the hands-on experience in the dental clinic really helped make the theory I was learning at Niagara College more relevant, as I could directly see how it applied to practice as a dental assistant.

Natalie VanHerk
Alumna, School of Allied Health Dental Assisting Program
Niagara College

Facilitating the Theory–Practice Nexus Through Teacher-directed Learning

Recognizing the benefits of student-directed learning for integrating theory and practice in the students' structured work experience, there is still an important role for educators in facilitating the theory–practice nexus. In particular, educators might assist students in integrating theory and practice by assisting in the development of learning outcomes that guide the theory–practice connection, facilitating classroom activities and discussions, and providing students with theoretical and practical learning opportunities that align with the learning outcomes of the WIL program.

Supporting Students' Self-directed Learning

In order to facilitate students' connections between theory and practice, the first responsibility of academic instructors/program co-ordinators is to delineate carefully the intended learning outcomes of the work experience and ensure alignment with potential worksites and student placement tasks. This is critical to assure the feasibility of integrating the students' practice in the workplace with the theory related to the students' focus of study and includes developing overarching, flexible and educational outcomes that preserve the academic integrity of the course and structured work experience (Maher, 2004; Montrose, 2002; Young & Baker, 2004). In defining overarching learning outcomes, it is important that these outcomes not be so specific as to restrict their applicability for students' particular needs (Bulk et al., 2023; Maher, 2004; Young & Baker, 2004). Furthermore, the process for creating flexible learning outcomes with students should be iterative in order to maximize effectiveness (Maher, 2004).

Next, WIL instructors are responsible for supporting students' integration of theory and practice by designing critical learning activities and assessments that complement and support the self-directed learning approach (Montrose, 2002). This could include any combination of

reflection exercises outlined in Chapter 3: Reflection (e.g., journaling, video blogs, class discussions, case studies). For instance, a program related to experiential preparation of teachers identified the academic faculty as responsible for challenging common assumptions in teacher preparation and fostering theoretical and evidence-based change of students through practice (Sherman, 2005).

Teaching Subject-specific and Transferable Knowledge and Skills

Academic instructors might also be responsible for providing students with theoretical and practical content on which to critique their work experience either before, during or after the experience, depending on the integration approach (i.e., theory-informed practice, practice-informed theory, concurrent, scaffolding). This includes the generation and facilitation of subject-specific knowledge or skill development courses (Zeng et al., 2010). For example, Zeng et al. (2010) designed a course for students in their fourth year of medical school to develop particular surgical skills (e.g., suturing, knot tying, management of issues) relevant to their clinical work experience in a calm and controlled environment. Specifically, each class included a brief lecture from the instructor, followed by demonstrations and active practice (Zeng et al., 2010). As evidenced, the academic instructor is responsible for the engagement in effective instruction and development of appropriate assessment of the students' learning (Krause, 1997).

Providing students with theoretical and practical content on which to critique their work experience also includes fostering the students' learning and demonstration of transferable knowledge, values and skills (Lu, 2007; Maher, 2004). As stated by Maher (2004), transferable skills represent the educational development that complements the student's understanding of discipline-specific knowledge. With the growth of WIL experiences in higher education programs, these skills are now recognized as an essential aspect of postsecondary education (Maher, 2004). Transferable skills include curiosity, eagerness, resilience, communication, problem solving, decision-making, teamwork, ambition and a strong work ethic, to name a few (Cuneen & Sidwell, 1993; Lu, 2007; Williams, 2004). As outlined in Chapter 2: Purposeful Experience, standards for professional and practice-based education that are commonly tied to students' structured work experience include the capabilities and attributes of professionalism and citizenship, professional judgement, communication and interactions, information literacy and professional competence and work readiness (Higgs, 2011). Development of these skills often enhances the employability of students following the WIL experience (Knight & Yorke, 2004; Maher, 2004).

Higgs' (2011) Standards for Professional Practice-based Education

Professionalism & Citizenship

- accountability
- trustworthiness
- social inclusion
- commitment to quality
- global perspective of practice
- financial
- social and environmental sustainability
- being a reflective practitioner and lifelong learner

Professional Judgement

- critical reflection
- flexibility
- adaptability
- problem solving
- creativity
- ethical decision-making
- lawful practice

Communication & Interactions

- professional communication
- supportive communication
- cultural competence
- confidentiality
- teamwork
- collegiality
- collaboration

Information Literacy

- ability to access new information
- ability to judge information
- synthesize information from multiple sources
- produce reports and multimedia presentations

Professional Competence & Work Readiness

- professional knowledge
- professional skills
- ability to integrate theory and practice
- knowledge of work/profession
- competence in safe work practice
- competence in professional knowledge & skills
- initiate
- independence

Areas of Preparation for Facilitating the Theory–Practice Nexus

In order to facilitate the theory–practice nexus, instructors who deliver WIL courses should educate themselves about their role as a WIL facilitator (e.g., effective teaching strategies, knowledge of content of the broader academic curriculum, an understanding of the learning outcomes and related theoretical and practical content of the WIL program). Instructors should be encouraged to continuously reflect on their role, be provided with a mentor to review their practice and experiment or practice in meaningful environments (Krause, 1997; Lu, 2007).

Instructors should be trained in strategies to integrate teacher-led and student-led learning approaches for the purpose of effective theory–practice integration. As an example, this could entail the instructor facilitating a literature-based lesson regarding a professional skill (e.g., communication) and then encouraging students to take responsibility and control over practicing this skill in their work setting.

As well, training on instructional approaches to learning that emphasize links between theory and practice and assist students in shifting from content-based knowledge (i.e., declarative knowledge) to other forms of knowledge acquisition, such as procedural knowledge (i.e., understanding how a process works), would be highly useful (Raelin, 2010). By approaching learning in this manner, students tend to be equipped with an understanding of how to apply knowledge in diverse situations (Spiro et al., 1996).

Training WIL instructors on effective instructional approaches for integrating theory and practice includes strategies for ways in which they can motivate students to make these connections. Osgood and Richter (2006) and other scholars committed to integrating principles of equity, diversity and inclusion into WIL programming suggest a number of teaching factors, information factors and presentation factors for facilitating educational activities that are motivating to students.

When done effectively, opportunities for students to learn outside the classroom in an inclusive work environment augment students' academic learning and develop work-ready graduates.

RECOMMENDATIONS AND GUIDELINES

Teacher-led Strategies for Motivating Students' Connections of Theory and Practice in WIL

Teaching Factors	Information (Content) Factors	Presentation (Delivery) Factors
• Demonstrate enthusiasm for both the practical and theoretical elements of WIL. • Build respectful relationships with students. • Recognize identities and intersectional needs. • Show a genuine interest in students and the theory–practice connections made. • Express high but realistic expectations for achievement of theory–practice integration. • Make learning and behavioural expectations clear. • Let students know how to succeed in connecting their work experience with theory. • Help students feel they are valued members of the academic and workplace learning communities. • Give frequent, early and positive feedback that supports students' belief that they can do well linking their academic learning with practice in a real-world work environment. • Use equitable and inclusive assessment tools for students that account for their intersectional needs.	• Demonstrate the relevance/value of being able to connect theory and practice in WIL. Explain how the knowledge/skill is/will be useful to the student in current and future work experience. • Provide well-organized learning activities that encourage students to draw connections between theory and practice. • Target learning outcomes to the proper level, ensuring they are designed to move learners to the next level of understanding, and using these learning outcomes as the focus for integrating theory with workplace practice. • Provide multiple concrete, relevant, accessible and understandable examples of links between theory and practice in WIL.	• Provide opportunities for students to be actively involved in establishing their own learning outcomes for WIL, to actively participate and to interact and share with others (feel connected and valued versus isolated and anonymous). • Foster a deeper understanding of self in relation to students' learning goals. • Involve minds through questions, discussion, demonstration, writing. • Involve mind and body through hands-on experiences and physical demonstrations of theory–practice nexus. • Involve attitudes, values and feelings through debates, position papers and ethical and professional discussions. • Use a variety of teaching methods (e.g., discussion, group work, lecture) and stimuli (e.g., video, slides, flip chart, audio).

Adapted from Mackaway & Chalkley (2021), Osgood & Richter (2006), Ramji et al. (2021) and Thakur (2021).

Erroneous Division of Theory and Practice

In discussing the integration of theory and practice, it is important to highlight the erroneous divide that is created between theory and practice relative to the presumed bases for each of their foundations.

This chapter, like most resources that provide information on the integration of theory and practice in WIL, is skewed towards the scenario in which students are integrating the practice they gain in the workplace with theory derived from the academic program. While this is not an inaccurate depiction of how theory and practice may be integrated in WIL, it is important to acknowledge that the theory–practice nexus is not limited to these sources, as argued by Billett (2015):

> current distinctions between theory and practice, and the divide between them that is frequently mentioned in relation to the inadequacy of experiences [in] educational settings and the need for those in practice settings are still largely based on the idea that theory (i.e., conceptual knowledge) is learnt in classrooms and practice (i.e., procedural knowledge) is that which is best developed in the circumstances of practice. However, these very premises are quite erroneous. Individuals learn concepts, propositions, casual links, and factual knowledge (i.e., theory) across different kinds of settings, including workplaces. Then the learning of how to do things (i.e., procedural learning) which is analogous to the term "practice" also arises in educational settings as it does within settings where people engage in practice in applying knowledge in ways that secure goals. (p. 22)

Recognizing this erroneous divide, this guide suggests that in order to maximize the integration of theory and practice in WIL, students should be encouraged to draw upon and be given opportunities for conceptual and procedural knowledge acquisition, as well as opportunities for practice in both the workplace and academic environment. It is suggested that the more forms of theory and practice that are drawn upon within each environment, the deeper the integration of the theory and practice may be, both within and between the academic environment and the workplace. Examples of ways in which students may be exposed to theory in the workplace include professional development workshops or seminars at the worksite, resource material provided for workplace employees/learners, through specific workplace tasks (e.g., background review on a project/procedure) or within discussions with mentors and peers at the worksite. Examples of how practice may be gained in the academic institution include practical and laboratory sections and hands-on practice of the material alone or with peers or visitors in the 'classroom.'

Sustainable educational partnerships between the academic institution and the workplace enhance the integration of theory and practice within and between academic and workplace environments.

Summary of Effective Practices for Facilitating the Integration of Theory and Practice

4

One of the biggest challenges facing WIL today is the ability to facilitate and support students' integration of classroom curricula into practice, and vice versa (Boud & Symes, 2000; Stirling et al., 2014).

This challenge is precipitated by WIL programs feeling the pressure to balance the theory base of the academic program "with the practical skills required by the industry that will ultimately employ the students" (Ruhanen, 2005, p. 34).

Integration of theory and practice in WIL should be thought of as bi-directional. There are four different approaches:

- ***Theory-informed-by-practice approach*** in which practical experiences inform theoretical learning; may be best applied to universal learning outcomes (e.g., professional skills) or specific learning outcomes related to field of practice.
- ***Practice informed by theory approach*** in which theory is applied by students and/or practiced in the workplace.
- ***Concurrent approach*** in which students are studying theoretical material at the same time as engaging in practice.
- ***Scaffolding approach***, or the continued progression and interspersing of theory and practice; students may apply theory to practice or practice to theory given the cyclical nature of learning.

Collingwood's (2005) Three-stage Theory Framework can be used to apply the theory-informed-by-practice approach to integration. It is comprised of three progressive stages:

1. Previous theoretical knowledge is used by students to acquaint themselves within the workplace setting;
2. Theory is used to inform what is going on (and why) and potential intervention strategies;
3. Students build on the use of theory to inform and intervene by identifying and practicing the specific knowledge, values and skills underlying the service of the placement agency.

Workplace supervisors can facilitate the application of theory to practice in three ways (Munson, 1993):

- discuss theory and help students connect theoretical material to practice;
- translate conceptual material into more practical language and use examples; and
- exclusively present the practical material and allow students to make connections.

Another model is Fook and Gardner's (2007) Model for Critical Reflection, in which students engage in a cyclical process:

- students practice in the work setting and experience a problem/incident;
- they reflect on this practice, draw on theory and make sense of the interaction and influencing factors; and
- students then contemplate new practice strategies going forward.

Recommendations for enhanced integration include:

- integrated learning is treated as a shared responsibility between all stakeholders;
- faculty/staff build integration into structured WIL through learning outcomes and assessment;
- stakeholders develop a deliberate plan of action that reintroduces theoretical or practical aspects to consolidate learning from the field;

- students integrate what they have learned in the workplace and relate it to the next phase of academic or work-integrated learning;
- acknowledgement that practice settings provide experiences to acquire knowledge, skills and attitudes.

Pedagogical practices for integrating work experience within higher education courses:

- ***Pre-work experience:*** orient students to requirements for effective engagement; outline purpose of work experience (e.g., responsibilities of stakeholders); prepare students to be proactive learners; provide students with skills they may need; prepare students for potential confrontations in workplace.
- ***During work experience:*** ensure that students are guided by experienced workers; encourage students to engage fully in work tasks related to learning outcomes; facilitate student engagement with peers.
- ***Post-work experience:*** provide students with the opportunity to share learning with others; promote identification of links between what students have been taught and their practice in the workplace; encourage criticality of learning.

To connect theory and practice, postsecondary education has shifted from a traditional approach (e.g., professor responsible for learning) to a shared responsibility of instructor-led and student-led learning (Barr & Tagg, 1995).

Self-directed learning is "an approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) processes in constructing and confirming meaningful and worthwhile learning outcomes" (Garrison, 1997, p. 18).

Benefits of self-directed learning (e.g., Garrison, 1997; Montrose, 2002; Race, 1990):

- may enhance the breadth and depth of material learned;
- enables students to make autonomous theory and practice connections;
- students learn to transfer skills in various contexts, encounter different perspectives, possess freedom over content and consider potential impacts learning could have on broader social issues.

Garrison's (1997) Self-directed Learning Model was chosen as the guiding framework for student-led connection of theory to practice. The theory is comprised of three overlapping dimensions:

- ***Self-management***, or the attainment of learning goals and management of contextual conditions, including oversight of goals, methods, resources and support available for learning and modes of assessment required to evaluate experience.
- ***Self-monitoring***, in which a learner constructs meaning related to their learning in light of pre-determined goals, expectations and practical experience.
- ***Motivation***, or the perceived significance and expected success of the learning goals determined by the student at the time that learning begins.

Each mode (e.g., self-management, self-monitoring or motivation) is enhanced when the learner is proficient in the other two modes (Garrison, 1997).

Other aspects identified as important for a self-directed learning approach include (Brockett & Hiemstra, 1991; Candy, 1991; Patterson et al., 2002; Young & Baker, 2004):

- collaboration with peers and colleagues;
- appropriate assessment;
- continuous reflection; and
- critical thinking.

Challenges of the self-directed learning approach for students, WIL co-ordinators and instructors include (e.g., Burnard, 1991; Harvey et al., 2017; Lunyk- Child et al., 2001; O'Shea, 2002; Thakur, 2021):

- student anxieties or unwillingness to embrace a self-directed approach;
- relevant integration of technology;
- timing of introduction to self-directed learning;
- feasibility in unique fields or technical skills-based programs; and
- instructor's ability to cater guidance for the student to their learning goals.

Academic instructors also play an important role in facilitating the connection between theory and practice by (e.g., Bulk et al., 2023; Montrose, 2002; Young & Baker, 2004):

- developing an understanding of theoretical frameworks of experiential learning;
- designing curriculum that complements/supports a self-directed learning approach;
- choosing broad content to be covered in class, and developing overarching and flexible educational objectives;
- facilitating subject-specific knowledge and skill development;
- fostering student learning and demonstration of transferable skills; and
- connecting student-led and instructor-led learning in a meaningful way.

Teacher-led strategies for motivating students' connections of theory and practice:

- ***Teacher factors:*** enthusiasm for practical and theoretical elements of WIL; build respectful relationships; high but realistic expectations for the integration of theory and practice; clear expectations for learning and behaviour; frequent, early and positive feedback about theory–practice nexus in WIL environment; and equitable and inclusive assessment tools.
- ***Information (content) factors:*** demonstrate relevance of connection between theory and practice in WIL; explain how the knowledge/skill will be useful to students in current and future work; provide accessible and well-organized learning activities; ensure that learning outcomes are designed to move learners to next level of understanding; learning outcomes as focus of theory–practice nexus.
- ***Presentation (delivery) factors:*** provide opportunities for students to be actively involved in the development of learning outcomes and share with others; involve the mind through questions, discussion and writing; involve mind-body connection through hands-on experiences and physical demonstration of theory–practice nexus; involve attitudes, values and feelings through debates, position papers and discussion.

It must be acknowledged that the division of theory and practice is erroneous:

- The current division of theory and practice is still based predominantly on the perception that learning theory occurs in the classroom and that practice typically occurs in other workplace settings (Billett, 2015).
- In order to maximize the integration of theory and practice in WIL, students should be given opportunities for conceptual and procedural knowledge acquisition, as well as opportunities for practice in both the workplace and academic environment.

5 Experimenting with New Ideas

In this chapter, effective practices are discussed for addressing the active experimentation learning mode in WIL. Experimentation is defined, followed by a review of a four-step process for developing an experimentation plan. Effective practices for facilitating students' experimentation with new ideas also include enabling students to be creative and adaptive and to push the boundaries of what is possible in the work environment. The wealth of literature on entrepreneurship in higher education may also be applied as a strategy to enhance students' experimentation with new ideas in the structured work experience.

Experimentation

Experimentation in the context of higher education generally calls to mind science experiments. However, experimentation can also apply to the WIL context and be conceptualized in similar ways. For example, in a science experiment, you begin with a theory-informed hypothesis and an idea of what you want to do. You then develop the methods for carrying out the experimentation, implement the experiment and evaluate its effectiveness and whether it disproves or supports your hypothesis.

Similarly, in WIL a student may develop an idea for practice in the workplace based on critical reflection and integrations of workplace experience and academic theory. The student then describes the idea with a supporting rationale, develops a plan for implementation, implements the plan and concludes by reflecting on whether the intended goals of the new workplace practice were met. Although experimentation in WIL is similar to that in a science experiment, it is less common and less understood.

This chapter explores how student experimentation can be facilitated within the structured work experience, with special consideration given to fostering student creativity and adaptability in the workplace setting. In addition, considerations are provided for pushing the boundaries of WIL and allowing students the opportunity to take more risks and have greater autonomy over their learning experiences.

Definition and Overview

According to Kolb (1984), for a complete learning experience to take place, students must complete all four learning stages: concrete experience, reflective observation, abstract conceptualization and active experimentation (Rschick et al., 1998). However, the final stage is not well understood and thus less purposefully integrated into WIL context (Stirling et al., 2014).

Before addressing key factors for improving the integration of experimentation into students' structured work experiences, it is critical to begin by clarifying and making explicit what we mean by experimentation in WIL or the workplace setting. To do so, we turn to Kolb's conceptualization and definition of active experimentation in experiential learning theory. According to Kolb (1984, 1998), active experimentation is defined as the stage in which "students test theories [and] make predictions about reality and then act on those predictions ... the learner is trying to plan how to test a model or theory or plan for a forthcoming experience" (cited in Akella, 2010, p. 102). Characteristics central to experimentation include problem solving, decision-making, practical application, openness to new experiences, adaptation to change, action orientation, curiosity and creativity (Evans et al., 2010).

According to Goltz et al. (2008), globalization has resulted in organizations' growing demand for employees with enhanced decision-making and problem-solving skills. A way to nurture such employees is through teaching students these skills in higher education, prior to entering the workforce (Freeman, 1995). Now more than ever it is essential to develop and implement a strategic plan to facilitate student experimentation and the enhancement of the workplace skills required to propose and experiment with new ideas.

In looking to enhance students' experiences of active experimentation in the classroom specifically, there are several class participation techniques that faculty and/or staff can use to give voice to students' experiences and viewpoints, including: giving more student-relevant examples; including more class exercises and participation opportunities that help students appreciate cultural differences and build cultural competency; using more visual aids like videos, role play, team work and class discussions; and becoming more open and curious about students, their lives and their activities (Akella, 2010; Craig et al., 2022; Dessel & Corvidae, 2017). In the WIL context, experimentation can be facilitated through the provision of opportunities such as collaboration in teams (Grossman et al., 2001; Little 2002; Schwarz McCotter, 2001; Vescio et al., 2008); problem-based learning situations (Yeo, 2009); training other colleagues/students (Ha, 2008); participating in work projects and troubleshooting experiences (Ha, 2008); participating in research projects (Itin, 1999); learning through case studies (Smith, 2000); and assigning challenging tasks spontaneously and/or under pressure (Middleton, 2002).

KEY TERMINOLOGY

Experimentation is defined as the stage of experiential learning in which "students test theories [and] make predictions about reality and then act on those predictions."

(Akella, 2010, p. 102)

Characteristics Central to Experimentation

- Problem solving
- Decision-making
- Practical application
- Openness to new experiences
- Adaptation to change
- Action orientation
- Curiosity
- Creativity

(Evans et al., 2010)

❝ | SUCCESS STORY

Seneca College

As a student in Seneca College's Veterinary Technician program, I learned so much about animal care and the practice of being a vet tech. While I was studying at Seneca, I had the opportunity to work at the Canine Wellness Centre, where I assisted in laser and manual therapy, as well as hydrotherapy. One of the highlights of working at this facility was working with my supervisor to develop a proposal for conducting canine fitness testing at the Centre. Before coming to Seneca, I had completed an undergraduate degree in the Department of Kinesiology at McMaster University. It was great being able to apply my previous education to my work as a vet tech and be a part of the innovative practice happening at the Canine Wellness Centre. I now work full time at the Toronto Humane Society.

Christina Giordmaina
Former student, Veterinary Technician Program
Seneca College

Pedagogical Techniques to Foster Student Experimentation in WIL

- Descriptive classroom examples of practical applications of theory
- Opportunities to practice experimentation in the classroom (e.g., role plays, teamwork, class discussions)
- Demonstrating appreciation for cultural difference, and openness and interest in students' ideas and activities
- Exposure to problem-based learning situations at the workplace
- Opportunities for workplace collaboration in teams
- Peer training/mentorship
- Troubleshooting workplace challenges
- Participating in research projects
- Learning through case studies
- Assigning challenging tasks spontaneously and/or under pressure

Adapted from Akella (2010), Craig et al. (2022), Dessel and Corvidae (2016), Grossman et al. (2001), Ha (2008), Itin (1999), Little (2002), Middleton (2002), Schwarz McCotter (2001), Smith (2000), Vescio et al. (2008) and Yeo (2009).

Developing an Experimentation Plan

The intended outcome of an experimentation plan is to have students experiment with their new knowledge. Both inside the classroom and in the workplace, an explicit and strategic plan can be used to help facilitate students' experimentation. Developing an experimentation plan includes four basic steps: 1. Generate an idea; 2. Determine the strategy for implementation; 3. Implement the idea; and 4. Evaluate and reflect.

1. Generate an Idea

The first step in coming up with an experimentation plan is to identify a need, challenge or opportunity in the workplace and an idea for a resolution and/or advancement. This can be driven by faculty/staff charged with delivering the WIL program, the workplace supervisor who oversees the student's work experience or the student themselves. More specifically, idea generation can be precipitated by learning outcomes proposed by the academic institution,

applied learning activities or assignments that challenge students to propose new directions or advancements for practice in the workplace (e.g., class discussions, case study projects, problem-solving exercises). A student may be informed of a challenge or potential area for advancement in the workplace organization directly by the workplace supervisor, colleagues or clients, and idea generation may be facilitated through associated troubleshooting and brainstorming sessions. Areas of need or potential opportunity, and corresponding ideas for improvement, may also be generated autonomously through students' curiosity, creativity and critical reflection, and by applying theory/practice connections made in the WIL experience.

As an example, a speech language pathology student may be conducting a clinical placement at an elementary school. As a part of the student's placement work, they conduct one-on-one communication training with a child at the school who is nonverbal. The student realizes that there is currently no training provided for the other children in the class on the use of sign language, a communication strategy currently being used by the child who is nonverbal in their home environment and with the teacher and teaching assistant in the classroom. As a part of a previous course taken in their academic program, the student remembers reading about the influence of communication competence between peers on social development and friendship, so they decide that conducting sign language training with the entire class may be a good idea.

2. Determine the Strategy for Implementation

The next step in developing an experimentation plan is to decide the best way to proceed with the idea, including identifying resources, feasibility and control mechanisms. More specifically, after generating an idea a student may ask themself, "What is required to implement the idea?"; "Can I fulfill these requirements with the resources available?"; "What is the best timing and process for implementation?"; "Am I in an appropriate position to implement the idea into action?"; and "Who else should be involved?" The breadth and depth of the strategic planning varies depending on the scope of the idea, but it is recommended that in all cases students should take a moment to assess critically the implications and considerations of their new idea(s).

Writing down the idea and projected plan for implementation is a good idea no matter how simple or elaborate the idea may be, as it helps flesh out pertinent details related to the idea/plan, as well as serves as a tool for the student to track their own progress and idea development. Once the plan has been written out in as much detail as possible — including the recognized need or area for advancement, idea, resources required, timeline, end goal/product/solution and perceived barriers/challenges — it can be shared with stakeholders.

As a part of the strategic planning, in addition to critically assessing and documenting the idea and implementation plan, students should identify stakeholder(s) involved in the process and share the idea/plan with them, including necessary resources to carry out the idea/plan. Any WIL experience requires a collaborative partnership between the academic institution, host organization and the student (Bulk et al., 2023; Jackson et al., 2017; Reeve & Gallacher, 2005). Therefore, regardless of who initiates the idea/plan, it must be shared and communicated with each partner. One of the primary aims for this step should be to solicit feedback from stakeholders before moving forward with the plan and, based on the feedback received, make any required changes.

Possible changes may include: the academic institution suggesting ways to assess student performance on the idea/plan or ways to better incorporate theory; the host organization requiring the plan to meet organizational regulations or including additional staff/students in the process; and students wanting to provide input on what they would like to learn and develop by participating in the idea/plan.

3. Implement the Idea

Once the plan has been finalized and has received feedback, it is ready to be implemented into practice. Throughout this step, routine feedback and communication between WIL stakeholders should be maintained and any unforeseen challenges and/or revisions to the plan should be addressed.

4. Evaluate and Reflect

Once the idea and plan have been generated and implemented, it is critical to evaluate the effectiveness of the plan, areas for improvement and the student learning that occurred. This can be done formally (e.g., mentor assessment of student performance on idea/plan; reflective writings) or informally (e.g., informal conversations and/or feedback from a mentor and/or academic faculty/staff). Student reflections on the process and outcome of the plan should also be considered, including students' perceptions of the process, the added value of the idea and plan to the host organization, connections to theory that grounded the idea and plan and the success of the idea and plan (as defined by the student). Ideally, this evaluation will spark ideas for further improvement, thus leading to the initiation of a new experimentation plan.

In addition to creating and using an experimentation plan, there are key factors for facilitating students' generation of new ideas and their ability to implement them in the workplace that should be considered. Students' ability to generate and test new ideas is influenced by their creativity, adaptability and willingness to push the boundaries of what is possible in WIL.

GIVE IT A TRY!

Sample Student Experimentation Plan

1. Generate an Idea

- What is an identified need, challenge or opportunity in the workplace?
- How can this be resolved/advanced?

Idea:

Rationale:

2. Strategy for Implementation

- What is required to implement the idea?
- What kinds of support or accommodations do I need to implement this idea?
- Can I fulfill these requirements with the resources available?
- What is the best timing and process for implementation?
- Am I in an appropriate position to implement the idea into action?
- Who else should be involved?

Resources:

Time frame:

Process:

Team members:

GIVE IT A TRY!

Sample Student Experimentation Plan (cont'd)

3. Implementation

- What feedback has been received on the implementation of the idea?

Strengths:

Challenges:

4. Evaluate and Reflect

- Was the idea effective? How do I know?
- How can the idea/implementation be improved?
- What value did this idea add?
- What did I learn?

Effectiveness:

Areas for improvement:

Value:

Student learning:

Creativity

Creativity has been gaining increasing attention over the last several decades, with educators promoting the importance of creative thinking inside and outside of the classroom (Brown & Kuratko, 2015; Caballero-Garcia & Ruiz, 2021).

However, the nature of the work tasks completed in a student's work-integrated learning experience are often effective for yielding practical knowledge while not allowing students sufficient flexibility for innovative thinking and creativity (Estes, 2004; Moore, 2010). Creativity, as described by Sternberg and Lubart (1999), has two defining characteristics: "The ability to produce work that is both novel (e.g., original, unexpected) and appropriate (e.g., useful, adaptive to task constraints)" (p. 3).

In today's economy, organizations that can cultivate employees' creativity and commitment to producing novel work enjoy much greater success (Kuratko et al., 2001; Saba & Cukier, 2022). However, preparing students to be inventive contributors to the workplace "has fallen behind in establishing innovative changes for educating in the 21st century" (Brown & Kuratko, 2015, p. 147).

One solution to improving the creative capabilities of students is to foster their knowledge, practice and attitudes towards creativity through the WIL experience. Brown and Kuratko (2015) propose a set of guidelines to assist faculty and staff in their use of WIL opportunities to foster students' creativity in the workplace, which include identifying the problem before designing the solution; demonstrating the process through iterations; being strategic rather than tactical; being open but constrained; and implementing teamwork opportunities with shifting assignments.

In organizing the structured work experience, it is important to be mindful of the structures that can limit student creativity and innovation.

- ***Identifying the problem before designing the solution*** denotes that creativity involves allowing students the opportunities to develop and refine both the formulation of a problem and ideas for a solution, rather than having problems/solutions identified for them.

- ***Demonstrating the process through iterations*** highlights the importance of rewarding students for the process they use to address the problem they have identified, rather than simply the solution they have developed. For example, requiring students to develop several solutions and submit this work as part of their final deliverable is one way to capture this process.

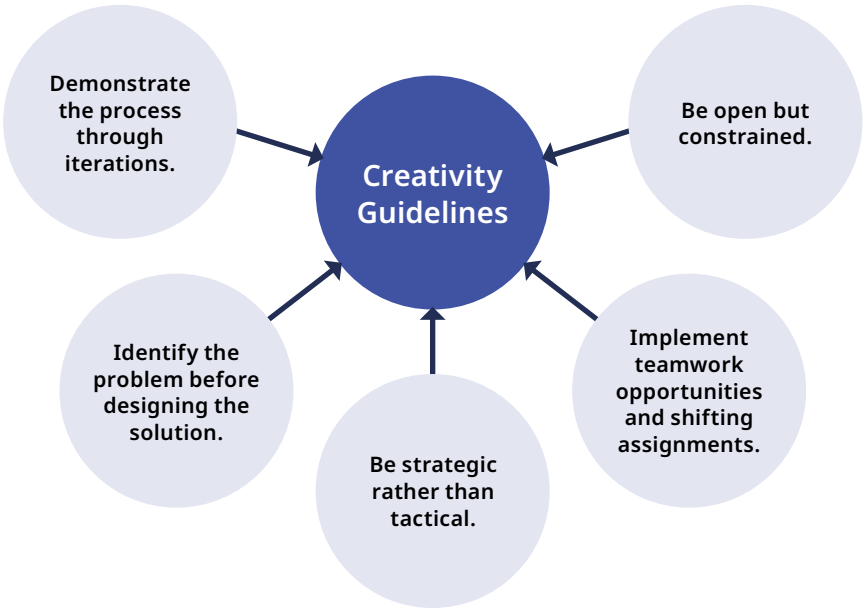
- ***Being strategic rather than tactical*** suggests that students should be encouraged to think beyond the practical problems and instead develop alternative solutions that consider factors outside of what has been presented to them. This is evident, for example, when a workplace organization presents a practical problem for a student to solve and the student is confined to developing and suggesting tactical activities that will help the organization be successful in a course of action. Instead, the student should be allowed to think beyond tactical decisions and free to develop alternative solutions that only focus on the problem as it was presented (Dunne & Martin, 2006; Dym et al., 2005).

- ***Being open but constrained*** acknowledges that although open projects allow students the flexibility to be creative in developing solutions, constraints must be imposed in order for innovation to take place (Goodale et al., 2011; Mumford et al., 2008).

- ***Implementing teamwork with shifting assignments*** involves rotating student team assignments at random to ensure that students are continuously adjusting to new teammates, new roles, new ways of thinking and differing perspectives. This in turn will help to improve students' leadership, co-operation and communication skills, and improve their ability to develop new ideas based on the various perspectives of the workplace/project to which they have been exposed (Hansen, 2006; Morris, 2020).

Guidelines for Enhancing Student Creativity in WIL

(Brown & Kuratko, 2015)



In addition to these concrete guidelines, there are also different forms of creativity that exist for differing purposes. According to DeGraff and Lawrence (2002), there are ***four main types of creativity*** that describe the creative tendencies of an individual or group. These four types are conceptualized into 'creativity profiles,' including imagine, invest, improve and incubate.

- ***Imagine:*** This profile is about breakthrough ideas and visions for the future. It is most appropriate for situations calling for the generation of divergent ideas to meet an externally produced challenge. It is not surprising, then, that the imagine profile involves high risks and high rewards. For example, a highly successful organization asks a group of its placement students to develop an advertising campaign to market a new product across Ontario. Under an imagine profile, the organization would promote radical thinking and ideas and be willing to have the students work on this project because of the potentially large reward they could gain in sales. If the project fails, they have a financial buffer to cover the loss.

- ***Invest:*** This profile is all about converting creativity into action through the provision of resources and discipline. Like the imagine profile, the invest profile relies on creativity to produce monetary gains. However, these profiles differ in that the invest profile demands that the risks associated with creative endeavours be calculated. Convergent ideas are welcomed in the invest profile in order to meet an external challenge. In short, this approach usually tends to avoid taking big risks. For example, a not-for-profit organization would like to host a fundraiser to raise money for its outreach initiatives. Placement students have been assigned the task of creatively designing and organizing the fundraiser, but they are under strict orders to leverage company products and services and not to invest too much into the fundraiser in case they do not meet their intended goals.

- ***Improve:*** This profile is focused on leveraging something that already exists and making it better. This type of approach also involves internal systems producing a convergent solution. The improve profile is useful in increasing the quality of or getting the most from something pre-existing. Boundaries of control are central to this approach, as they allow for interdependent parts to work together to make incremental gains. For example, a team of students at an engineering firm is tasked with improving the durability of a pre-existing product. The students work alongside a project manager, a software technician, a technology expert and a team of product specialists, all within the engineering company. This newly formed interdependent team then works within a system of standardized structures and processes to make incremental gains on the improvement of the product.

- ***Incubate:*** This profile pursues sustainable creativity by finding and developing people in the best possible environment. This includes internal 'talent scouting,' in which diverging abilities of different people are cultivated to create sustainable creativity. Given the long-term potential of this approach, time and patience are required before rewards can be seen or recognized. For example, a supervisor at a physiotherapy clinic where a student is doing their clinical work placement may notice that the student has excellent interpersonal skills and therefore place them at the front desk to greet patients. Over the course of the placement, the manager also notices the student's keen eye for technology and ability to learn quickly. The placement student begins treating patients with the clinic modalities under the supervision and guidance of the workplace supervisor. By the end of the student's placement, they are contributing to several aspects of the clinic, thanks in part to the manager's ability to scout the student's talent and assign them appropriate tasks.

Creativity Profiles

(DeGraff & Lawrence, 2002)

Students' ability to generate and test new ideas is influenced by their creativity, adaptability and willingness to push the boundaries of what is possible in WIL.

Adaptability

According to Kolb (1984), the ability of students to adapt to their surroundings and changing circumstances characterizes the active experimentation mode of experiential learning theory. More specifically, these characteristics also paint a picture of the accommodating learning style (Kolb, 1984; Evans et al., 2010).

KEY TERMINOLOGY

Defining Characteristics of Adaptability

- Willing to take risks
- Employs a trial-and-error approach to problem solving
- Adjusts to changing circumstances

(Evans et al., 2010)

In Evans et al. (2010), accommodators are further described as willing to take risks, preferring a trial-and-error approach to problem solving over using analytical thinking, and being good at adjusting to changing circumstances. Adaptability, therefore, is an integral component of experimenting with new ideas and should be supported and encouraged within the structured work experience.

Adaptability, as proposed by Hall (2002), is the capacity to change, including both the competence and the motivation to do so. It has been noted that today's workplace organizations are changing and are more dynamic than ever (O'Connell et al., 2008; Pearlman & Barney, 2000; Pulakos et al., 2000; Sanchez & Levine, 2001), which reaffirms and further fuels the need for students to be adaptive in the workplace, both as a part of their WIL and upon graduation. For example, as a part of the structured work experience, students may be faced with advancements in technology in the workplace, working with people who have different backgrounds, both culturally and professionally, and/or needing to learn new skills to compete for involvement in different projects. As a result, students "need to be increasingly adaptable, versatile, and tolerant of uncertainty to operate effectively in these changing and varied [work] environments" (Pulakos et al., 2000, p. 612).

There are a number of ways in which a student can gain experience in practicing adaptation in their structured work experience:

1. Handling emergencies and crisis situations;
2. Handling work stress;
3. Solving problems creatively;
4. Dealing with uncertain and unpredictable work situations;
5. Learning work tasks, technologies and procedures;
6. Demonstrating interpersonal adaptability, including being flexible and open-minded when dealing with others and developing effective relationships in the workplace;
7. Demonstrating cultural adaptability by taking action to learn about and understand the climate, orientation, needs and values of other groups, organizations or cultures, and integrating well and adjusting as necessary; and
8. Demonstrating physically oriented adaptability by adjusting to environmental extremes (e.g., temperature, cleanliness, physically demanding/strenuous tasks) (Craig et al., 2022; Pulakos et al., 2000).

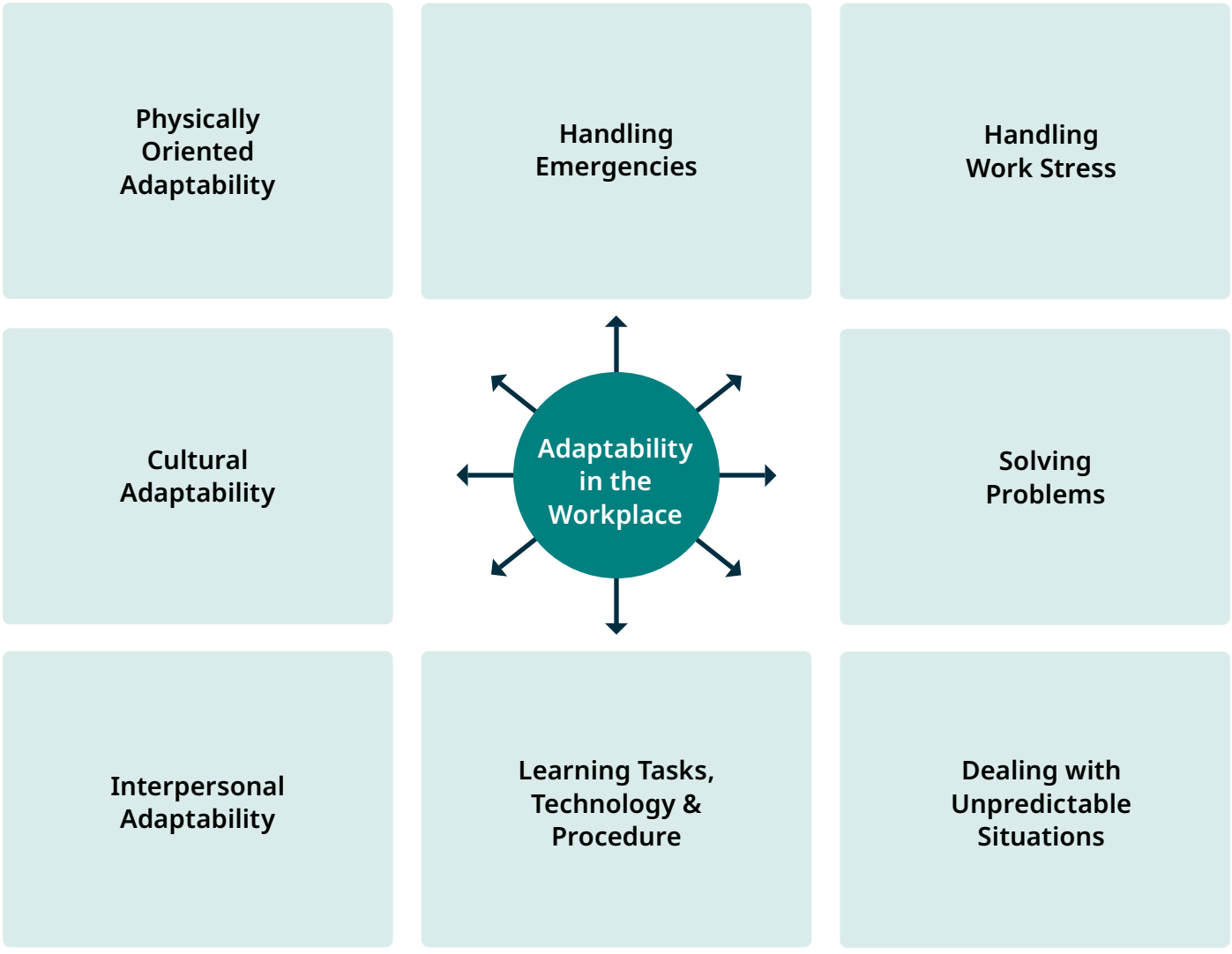
Despite common challenges cited in the literature in developing adaptability (e.g., that it is a difficult thing to measure, predict and teach effectively (Pulakos et al., 2000)), Levin (2015) outlines a range of skills and practices for further training aimed at increasing adaptability and accommodating future changes in workplace organizations. These dimensions can also be applied to developing the adaptability of students in the WIL context. Levin's (2015) dimensions are ***initiative, co-operation, working in groups, peer training, evaluation, reasoning, problem solving, decision-making, obtaining and using information, planning, learning skills and multicultural skills***. To put these dimensions into practice, we pose the following example. Patricia is a student who

is doing her placement at a community food bank. The food-sorting machine recently broke down and since there is not enough funding to replace it, Patricia would like to pitch a plan to her work supervisor to improve the sorting and storing of non-perishable foods (***initiative***). She approaches two other placement students, as well as two volunteers working at the food bank, to work together on her idea (***co-operation; working in groups***). At this point, one of the long-term volunteers provides his feedback on Patricia's plan (***peer training***), which then prompts the other volunteer and two placement students to pose additional potential problems with the idea. As a result, Patricia generates an alternative solution, clarifying to everyone the new information related to the project and how this information will be used to carry out the new plan (***obtaining and using information***). With unanimous support, the group pitches the plan to the workplace supervisor together and, within the week, they are working to implement the plan (***problem solving***).

The greatest gains in worker productivity result from the adaptability of workers to change (Levin, 2015). As such, students should be encouraged to try new things and experiment throughout their WIL experience. By doing so, students will not only develop important traits for future career success, but will also practice the active experimentation mode of Kolb's theory and therefore enhance the educational quality of their work experience.

Eight Dimensions of Adaptive Performance in the Workplace

(Pulakos et al., 2000)



Training Students in Adaptability	
Skill/Practice	**Description**
Initiative	The drive to think and act independently
Co-operation	Constructive, goal-directed interaction with others
Working in groups	Directed towards both short-term goals of efficient task or activity accomplishment and the long-term goal of group maintenance
Peer training	Informal and formal coaching, advising and training of peers
Evaluation	Appraisal and assessment of the quality of a product or service
Reasoning	Generation of logical arguments
Problem solving	Identification of problems, generation of alternative solutions and their consequences, selection of an alternative and implementation of a solution
Decision-making	Employing the elements of problem solving on an ongoing basis
Obtaining and using information	Deciding which information is relevant, knowing where to obtain it and how to put it into use
Planning	Establishing goals, as well as scheduling and prioritizing work activities to achieve them
Learning skills	Cognitive and affective skills that facilitate the acquisition of new knowledge
Multicultural skills	Understanding how to work with people from other cultures in terms of language, communication styles and diverse values

Levin, 2015

Opportunities for inclusive WIL span the breadth of disciplinary areas, from the social sciences and humanities to environmental, physical, health and applied sciences, fine arts, business and vocational training.

Pushing the Boundaries

The perspective that WIL educators should exert less control over postsecondary students and allow for greater autonomy in student learning has been gaining greater attention in the literature over the last 25 years (Dworkin, 2005; Evans & Boucher, 2015; Lightfoot, 1997). With less controlled WIL experiences, students are encouraged to try new things and experiment with new ideas.

RECOMMENDATIONS AND GUIDELINES

Conditions for Pushing the Boundaries on Risk Environments

- Exposure to authentic activities
- Exposure to multiple situations
- Developing trust with others (e.g., workplace supervisor)
- Student confidence and self-efficacy
- Managing risk (e.g., as opposed to eliminating it)
- Pursuit of opportunities to take on responsibility
- Successfully overcoming challenges
- Willing to judge and partake in appropriate risk

Adapted from Clouder (2009), Duke (2004), Giddens (1991), Shapira (1995), Tennant (1999) and Tschannen-Moran (2004).

Advocates go one step further and suggest that students actively seek out and take risks when shaping their WIL experiences because of the challenge and excitement of it (Chassin, 1997; Lightfoot, 1997). Therefore, in organizing the structured work experience, it is important to be mindful of the structures that can limit student creativity and innovation. In addition to the impact on student experimentation, other reported benefits students derive from a less structured WIL environment include increased intellectual, professional and interpersonal skill development, enhanced learning habits and greater employability (Freestone et al., 2006), as well as greater (task) self-efficacy (Subramaniam & Freudenberg, 2007). Furthermore, Giddens (1991) and Duke (2004) suggest that students who pursue opportunities to take on responsibility with positive outcomes are likely to develop a positive sense of self and increased confidence in their abilities to function as a professional in a work setting. Tennant (1999) suggests that these benefits are best derived when students are exposed to authentic activities and multiple situations.

Two conditions necessary in a less controlled work experience are trust and risk. Trust involves a "willingness to be vulnerable to another based on the confidence that the other is benevolent, honest, open, reliable and competent" (Tschannen-Moran 2004, p. 13). According to Smith (2005), "[trust] becomes relevant when social interaction is based on uncertain knowledge about the likely action of another and one depends on their response for a beneficial outcome" (p. 300). In the WIL context, the nature of practical learning entails a student working closely with a workplace supervisor to develop specialized knowledge and skills, highlighting the need for trust within the student–supervisor relationship (Clouder, 2009; Thakur, 2021). According to Clouder (2009), this trust that is built between the student and workplace supervisor also generates risk, which is influenced by the fear of potential outcomes and the extent to which an individual feels in control of events (Clouder, 2009; Shapira, 1995). The more students and workplace supervisors place trust in one another in the work environment, the more control they turn over to one another. This may entail a student taking a risk in proposing a new idea in the workplace (e.g., fear of failure, fear of rejection), or risking resources (e.g., time, energy, finances) dedicated towards student innovation. This may also include the risk of student engagement in the authentic experience necessary for idea generation and experimentation (e.g., risk of travel, environmental conditions). Due to the potential impact of the experimentation on both the student's learning and organization's productivity, it is recommended that risk in WIL be managed strategically, rather than eliminated

altogether. Specific strategies are outlined in Chapter 2: Purposeful Experience for managing risk in the WIL environment, with special consideration for the health and safety of the student. For managing risk in WIL, is it also recommended that you consult with the risk management office at your academic institution for advice and considerations specific to your program.

In planning structured work experiences for students, academic faculty and/or staff, as well as workplace supervisors, should ask themselves the following questions:

- How can we allow provisions for students to experiment and test new ideas on the spot?
- How can we put students in environments in which experimentation would be required?
- How do we allow for appropriate risk taking inside and/or outside of the classroom?
- How can we ensure that students are safe in their experimentation, yet allow for authentic experiences and autonomy over their own learning?
- What sources of guidance exist at my institution for the risk management of WIL?
- How do we send students into unknown environments with appropriate caution and confidence?

As an example, a faculty member may be charged with facilitating a teacher-training course, and as a part of this course wants to expose the students to greater cultural diversity. As such, a study-abroad internship program is organized in which the students are given the opportunity to gain work experience teaching English overseas. The students are tasked with living in a new environment, communicating with peers and colleagues who (potentially) speak another language and adjusting to a new culture, as well as facing the challenges any teacher in training would face in a typical classroom setting. In addition to managing the risks associated with studying abroad (see Chapter 2: Purposeful Experience), the instructor prepares the students appropriately so that they will feel confident in their ability to teach English overseas. Because of their expertise and demonstrated confidence, several of the students are permitted enhanced autonomy to design and personalize lesson plans and educational activities — an opportunity to develop, integrate and experiment with innovative ideas for teaching the English class.

In summary, facilitating the conditions by which students may engage in multiple opportunities to take risks in the workplace in a safe and appropriate manner, trust others, overcome challenges and have the autonomy to make decisions and push boundaries allows for active experimentation to take place. Burstein (2009) explains, "When individuals overcome hardship, it is called progress; when progress can be repeated, it is called development" (p. 371). In WIL, it is in providing opportunities for experimentation throughout the structured work experience that students may practice Kolb's active experimentation mode and ultimately improve their learning and development.

? | REFLECTION QUESTIONS

How can we allow provisions for students to experiment and test new ideas?

- How can we put students in environments in which experimentation would be required?
- How do we allow for appropriate risk taking inside and/or outside of the classroom?
- How can we ensure that students are safe in their experimentation yet allow for authentic experiences and autonomy over their own learning?
- What sources of guidance exist at the institution for the risk management of WIL?
- How do we send students into unknown environments with appropriate caution and confidence?

RECOMMENDATIONS AND GUIDELINES

Practical Considerations: Challenging Power Structures in WIL Programming

The main challenge in offering a student-centered approach is guiding students to unlearn the traditional power structures that exist in academic institutions. Sometimes students will ask employers questions related to a particular type of experience required for the position, despite already having that experience. By reminding students of the experience and qualifications they already hold and by teaching them to better articulate these qualifications, instructors can empower students. Developing respectful relationships with students also confronts traditional power dynamics and encourages reciprocal learning instead of inequitable power structures (Jackson et al., 2023).

PROGRAM SPOTLIGHT

Career Conversations for Equity Deserving Groups — Seneca College in Collaboration with Humber College

The Career Conversations for Equity Deserving Groups, a joint initiative between Seneca College and Humber College, explores various themes in the workplace on Equity, Diversity and Inclusion (EDI). Through this programming, a diverse group of experienced professionals from different industries are invited to share their lived career and life experiences with students and alumni. The primary purpose of this programming is for students to engage in conversation with panelists about the unique career experiences and challenges of equity-deserving groups and learn about strategies and resources that can promote their success in the workplace.

The audience consists of students and alumni who are transitioning from postsecondary education into their chosen careers or are already in the workplace. Panelists have focused on topics such as gaining confidence in entering the workforce as a member of an equity-deserving group, the power of self-awareness and self-advocacy and identifying and accessing support to work through challenges and barriers. Career Conversations provides a unique forum where students learn about potential career setbacks and strategies for success. Additionally, to ensure access and equity for all students, Seneca's Career Conversations are held virtually, twice a year, to offer all participants flexibility to join the sessions regardless of geographical location. They are also recorded to enable access for future viewing and reference.

While not specifically a WIL program, the themes of Career Conversations offer examples of two aspects of quality WIL programming described in this guide: centering student experiences and developing sustainable partnerships. The initiative focuses on the backgrounds, experiences and challenges that shape students' transitions into workplaces. Participants are connected to professionals from similar backgrounds that have overcome challenges to achieve success in their chosen fields. By working together, Seneca College and Humber College demonstrate how a strong partnership provides students with mentorship opportunities that are reflective of their own lived experiences and empower them with resources and strategies that they can employ in the workplace. When used in a WIL program, this experience can help practitioners to understand the challenges and needs of the student and relay that information to employers to inform equity efforts in the workplace, supporting student success and improving on the quality of WIL programming.

To maintain the strength and continuity of the program, the Career Conversations team had to address challenges related to budgetary constraints and securing panelists with the right skillsets and experience. The planning committee intentionally engages with alumni and leverages longstanding professional relationships to secure panelists. This intentionality is a key feature of WIL programs that focus on equitable access for all students.

Summary of Experimenting with New Ideas

5

Experimentation is defined as the stage of experiential learning in which "students test theories [and] make predictions about reality and then act on those predictions" (Akella, 2010, p. 102).

Developing an experimentation plan includes four basic steps:

1. Generate an idea.
2. Determine the strategy for implementation.
3. Implement the idea.
4. Evaluate and reflect.

In addition to creating and using an experimentation plan, key factors for facilitating students' generation of new ideas and ability to implement them in the workplace include their creativity, adaptability and willingness to push the boundaries of what is possible in WIL.

Creativity, as described by Sternberg and Lubart (1999), has two defining characteristics: "The ability to produce work that is both novel (e.g., original, unexpected) and appropriate (e.g., useful, adaptive concerning task constraints)" (p. 3).

Brown and Kuratko (2015) propose a set of guidelines to assist faculty and staff in their selection and use of WIL opportunities to foster students' creativity in the workplace, including:

- Identify the problem before designing the solution.
- Demonstrate the process through iterations.
- Be strategic rather than tactical.
- Be open but constrained.
- Implement teamwork opportunities with shifting assignments.

Four creativity profiles describe the creative tendencies of an individual or group:

- Imagine profile: This approach is about producing breakthrough ideas and visions for the future and is most appropriate for situations calling for the generation of divergent ideas to meet an externally produced challenge.
- Invest profile: This profile is all about converting creativity into action through the provision of resources and discipline, relying on creativity to produce monetary gains.
- Improve profile: This profile is focused on leveraging something that already exists and making it better. This type of approach is useful in getting the most out of something pre-existing.
- Incubate profile: This profile pursues sustainable creativity through finding and developing people in the best possible environment (e.g., talent scouting).

Adaptability is the capacity to change, including both the competence and the motivation to do so (Hall, 2002).

Levin (2015) has proposed a range of dimensions that can be applied to developing the adaptability of students in the WIL context:

- Initiative
- Co-operation
- Working in groups
- Peer training
- Evaluation
- Reasoning
- Problem solving
- Decision-making
- Obtaining and using information
- Planning
- Learning skills
- Multicultural skills

- The benefits of pushing the boundaries in WIL include increases in intellectual, professional and interpersonal skills, enhanced learning habits and greater employability (Freestone et al., 2006) and greater (task) self-efficacy (Subramaniam & Freudenberg, 2007).

- Trust and risk are inherent in pushing the boundaries in the structured work experience.

- Helping students realize the skills they possess not only empowers them but also challenges traditional power dynamics between WIL instructors/practitioners and students (Jackson et al., 2023).

6

Evaluating Your WIL Program

This chapter builds upon Kolb's experiential learning theory and highlights effective practices for program evaluation and its importance for ensuring the educational quality of WIL programs. Following a brief review of the distinction between program evaluation and research, this chapter outlines a six-step evaluation process. Specific information is provided on developing a WIL program evaluation question, and paradigms and models for program evaluation are discussed. References are provided for further information on developing evaluation tools, data collection and analysis, and presenting findings. This chapter concludes with a summary of ethical considerations when evaluating a WIL program.

What is Program Evaluation?

As a result of the varied uses of and approaches to evaluation, close to 60 different terms have been noted in describing its use, including: adjudge, appraise, analyze, assess, critique, examine, grade, inspect, judge, rate, rank, review, score, study and test, to name but a few examples (Fitzpatrick et al., 2011; Mertens & Wilson, 2012; Patton, 2000; Stufflebeam & Coryn, 2014).

KEY TERMINOLOGY

Program evaluation is the use of formal methodologies to provide useful empirical evidence about public entities in decision-making contexts that are inherently political and involve multiple often conflicting stakeholders, where resources are seldom sufficient and where time pressures are salient

(Mertens & Wilson, 2012).

Despite the variations in terminology and language employed in describing evaluation, Scriven (as cited in Patton, 2000) believes that this "reflects not only the immense importance of the process of evaluation in practical life, but the explosion of a new area of study" (p. 7). Although there are several definitions of evaluation, many scholars have adopted and/or worked from an original definition of evaluation provided by Scriven (1967), a leading figure in the field, which defines evaluation as judging the worth or merit of something. Looking specifically at program evaluation, Mertens and Wilson (2012) highlight the difference between evaluation and program evaluation, stating that the latter "is a ***profession*** that uses ***formal methodologies to provide useful empirical evidence*** about ***public entities*** (such as programs, products, performance) in ***decision-making contexts*** that are inherently ***political*** and involve multiple often-conflicting ***stakeholders***, where ***resources*** are seldom sufficient, and where ***time-pressures*** are salient" (p. 248).

Illustrating this definition of program evaluation in practice, a program co-ordinator might be given the task of using surveys and interviews to provide data about the department's internship program. Before the academic year ends, the department's money must be budgeted and a decision made whether to continue to support the internship program or allocate the funding to other educational initiatives. In this example, the internship program co-ordinator works as a professional evaluator; they have chosen to use surveys and interviews as the formal methodologies. These surveys and interviews will provide empirical evidence about the internship program (public entity). The faculty will use this information to make decisions about how to allocate funding, in a context in which the internship program staff/faculty and the directors of the competing educational initiatives in the department (stakeholders) have different ideas about how the money should be allocated (political context).

Importance of Program Evaluation

One of the reasons why we are seeing the field of program evaluation grow so rapidly is because of its potential for impact (Fitzpatrick et al., 2011). It provides not only an ingredient needed for quality assurance and improvement but constitutes one of the most important contributors to strong services and societal progress (Stufflebeam & Coryn, 2014). Work-integrated learning co-ordinators can (and should) use evaluation to plan and improve programming to better meet stakeholders' needs (e.g., student, mentor, institutional and societal needs) and to continually improve the educational quality of the WIL experience. Program evaluation, as discussed by Fitzpatrick et al. (2011), is important in developing good programs, helping deliver programs to changing stakeholders in changing contexts and helping find interventions that are successful in achieving goals. Scriven (1991b) also argues the importance of program evaluation in pragmatic terms (e.g., the potential for continual improvement), ethical terms (e.g., evaluation as a tool in the service of justice), social and business terms (e.g., evaluation directs effort where it is most needed, endorsing 'a new way' when it is better than the traditional way), intellectual terms (e.g., evaluation refines tools of thought) and personal terms (e.g., evaluation provides a basis for justifiable self-esteem). As one example of how program evaluation assists in directing program initiatives and change

in the WIL context, a program evaluation that highlights the need for enhanced partnership and recognition of workplace supervisors may lead to decisions around funding re-allocation to host a 'thank you night' for supervisors and their students to acknowledge their contribution to a successful WIL experience. Fitzpatrick et al. (2011) summarize the importance of program evaluation nicely when they state, "Evaluation gives us a process to improve our ways of thinking and, therefore, our ways of developing, implementing, and changing programs" (p. 33).

Program evaluation is not without its limitations. There are methodological limitations to evaluation, specifically that no single study can provide a complete, accurate account of the truth because truth is composed of multiple perspectives (Fitzpatrick et al., 2011). There also exist financial and political limitations, including the cost of the program evaluation and the various competing sources of information that also play a role in an institution's decisions around WIL programming. Recognizing these limitations, the importance of program evaluation for the continual improvement of WIL programming is undeniable. Evaluation should be viewed as a continuous system towards growth and a tool for better understanding and improving the WIL program over time as it evolves relative to changing contexts.

Considering the importance and potential impact of program evaluation, it is increasingly important to differentiate evaluation from research because the differences between the two not only help us to understand the distinct nature of evaluation as an evolving field (Fitzpatrick et al., 2011), but also highlight the different criteria by which we should judge credibility.

❝ | SUCCESS STORY

University of Toronto Mississauga

In the age of accountability and transparency, evaluation is ubiquitous. Evaluation has multiple forms and can aid in program analysis and development, curriculum design and partnership/relationship building. From large quantitative studies measuring graduate attributes, retention of WIL students or learning outcome success to smaller qualitative inquiries into professional identity construction or co-curricular program effectiveness, evaluation is valuable for WIL programs no matter their size. The key to effective program evaluation, however, is identifying what you need to know, why this information is important, who else will be interested in the findings and some of the implications for programs and classrooms. The findings from such evaluations can be used by administrators, teachers, career counselors and employers to strengthen programs and align student learning outcomes.

Tracey Bowen, PhD
Assistant Professor, Teaching Stream and Internship Co-ordinator
Institute of Communications, Culture, Information & Technology
University of Toronto–Mississauga

Difference Between Evaluation and Research

Although there is overlap between research and evaluation, there are also marked differences with regard to purpose, who sets the focus, generalizability of results, intended use of results, criteria to judge adequacy and the preparation of those who work in the area. One of the primary distinctions between evaluation and research is purpose (Fitzpatrick et al., 2011; Mertens & Wilson, 2012). The purpose of research is to add knowledge in a particular field and to contribute to the advancement of theory. While the results of an evaluation may contribute to knowledge development (Mark et al., 2000), the primary purpose of evaluation differs from that of research as it strives to provide useful information to those who have a stake in what is being evaluated and to help them make a judgement or decision (Fitzpatrick et al., 2011).

A second notable difference between the two is the approach one takes. In research, the approach "is typically to explore and establish causal relationships" (Fitzpatrick et al., 2011, p. 10), whereas evaluation seeks to examine and describe particular things to consider their value. Furthermore, in evaluation the questions to be answered are not necessarily those of the evaluator, but rather those of important stakeholders. The inclusion in the planning and conduct of the evaluation of those who have a stake in what is being evaluated highlights who sets the agenda in evaluation (Fitzpatrick et al., 2011).

Research and evaluation also differ in the generalizability of results. In program evaluation, stakeholders use the evaluation to make judgements about a specific object, program or policy and are unconcerned with how applicable the results are to settings other than their own. Therefore, "good evaluation is quite specific to the context in which the evaluation object rests" (Fitzpatrick et al., 2011, p. 10). In addition, good evaluation is intended to have an immediate impact on a particular context, whereas good research may or may not be of use right away (Fitzpatrick et al., 2011). In the research world, it is not uncommon for good research to be noticed or applied only years later.

The criteria by which research and evaluation are judged for their adequacy also differ. Whereas validity, reliability and generalizability are the criteria by which research is frequently assessed, accuracy, utility, feasibility and propriety (i.e., evaluation is done legally and ethically) are the criteria by which evaluation is judged (Yarborough et al., 2011).

Finally, the preparations of those who work in research and evaluation differ. In research, depth of knowledge in a particular subject matter or discipline is important, and researchers often specialize in the use of particular methodological tools (Fitzpatrick et al., 2011). In contrast, evaluators must be trained in a diverse range of methods from a variety of disciplines. Being familiar with a wide variety of methods (including those that are equity focused) allows evaluators to choose those most appropriate for the particular program and the needs of its stakeholders (Cukier et al., 2018; Fitzpatrick et al., 2011).

Importantly, despite the marked distinctions between research and evaluation, "There is a place at which research and evaluation intersect — when research provides information about the need for, improvement of, or effects of programs or policies" (Mertens, 2009, p. 2).

Program Evaluation Criteria	
Accuracy	Evaluation provides an accurate reflection of reality.
Utility	Results serve practical information needs of stakeholders.
Feasibility	Evaluation is prudent, realistic, diplomatic and frugal.
Propriety	Evaluation is done legally and ethically.

Needs assessment questions are concerned with establishing whether a need exists and making recommendations to address the need.

The Evaluation Process

The evaluation process includes six steps:

1. Develop an evaluation question

The first step in program evaluation is to develop an evaluation question. There are three common purposes for evaluation: to gain a better understanding of the needs within a particular context (needs assessment); to identify ways to improve the implementation of the program (implementation); and for the purposes of reporting the degree to which the program achieves its intended outcomes (evaluation of program effectiveness). According to Patton (2008), evaluation questions are typically generated in consultation with the intended stakeholders, rather than the evaluator developing the questions in isolation of others' interests and perspectives. The process then inevitably begins with asking the stakeholder(s) to think of something about their program that they would like to know (Mertens & Wilson, 2012).

2. Choose an evaluation paradigm

The next step is to choose an appropriate paradigm for evaluation. Paradigms are "broad metaphysical constructs that include sets of logically related philosophical assumptions" (Mertens & Wilson, 2012, p. 34). This step highlights the evaluators' beliefs about themselves, their roles and their worldviews in the evaluation process (Mertens & Wilson, 2012) and how these contribute to clarity of thinking around the assumptions that underlie research and evaluation. There are four primary paradigms that are applied to program evaluation: postpositivist, constructivist, transformative and pragmatic. Each of these four paradigms and their function in evaluating WIL programs will be discussed in greater detail below.

3. Select an evaluation model

The third step is to select an evaluation model. Models are "a set of rules, prescriptions, and prohibitions and guiding frameworks that specify what a good or proper evaluation is and how it should be done" (Alkin, 2004, p. 5). There are numerous models that could be considered when evaluating WIL programs. Three commonly cited models are the four levels of evaluation model (Kirkpatrick & Kirkpatrick, 2006), the RE-AIM framework (Glasgow et al., 1999) and the CIPP model (Stufflebeam, 2002). Other approaches include the goal-free approach, the case study approach, and transformative participatory evaluation (Mertens & Wilson, 2012).

4. Develop evaluation tools

The fourth step is to develop evaluation tools. This entails determining the methods required to answer the evaluation question and the creation or selection of the appropriate and equitable measures for data collection. Common evaluation methods include participant observation, surveys, focus groups, (semi-structured) interviews, experimental design, standardized testing and case file reviews (Stufflebeam & Coryn, 2014; Wholey et al., 2010). The development of the evaluation methods and tools should align with the chosen paradigm and evaluation model.

5. Data collection and analysis

The fifth step is to collect and analyze the data. The quality of the data collected is of the utmost importance in order to reach accurate conclusions about a program's effectiveness, and attention must be paid to ethical considerations in the data collection process (Mertens & Wilson, 2012). Data analysis is also important in ensuring that evaluation questions are answered accurately and effectively. Evaluators may choose from a variety of techniques of quantitative analysis — such as frequency counts, histograms, pie charts, variances and standard deviations, correlations, multiple regression, t-tests or analysis of variance (Stufflebeam & Coryn, 2014) — or engage in qualitative analysis — such as narrative presentations, summaries of main outcomes, depictions of major and minor themes or contrasting findings from stakeholder viewpoints (Stufflebeam & Coryn, 2014) — depending on the evaluation question(s) and paradigm identified in the first and second steps.

6. Present findings to stakeholders

The sixth and final step is to present the evaluation findings to the stakeholders. Findings can be presented in a number of different formats, such as a formal write-up, oral presentation or poster presentation. An effective presentation of evaluation findings should consider the message the evaluator wants people to remember and the medium that carries that message and should be tailored to the audience for which the message is intended (Wholey et al., 2010). The way the evaluation findings are delivered matters, as the report is meant to have impact and lead to action and positive change.

This chapter will focus specifically on steps 1–3. For more information on developing equitable evaluation tools, data collection, data analysis and final write-up and/or presentation, please see the following resources:

- Henning, G. W., Baker, G. R., Jankowski, N. A., Lundquist, A. E., & Montenegro, Erick. (2022). *Reframing Assessment to Center Equity: Theories, Models, and Practices* (First edition.). Stylus Publishing, LLC.
- Lloyd, N., Paull, M., Clerke, T., & Male, S. (2019). *Access, quality and wellbeing in engineering work integrated learning placements: Implications for equity and diversity.* National Centre for Student Equity in Higher Education.
- Lundquist, A., & Henning, G. W. (2020). From avoiding bias to social justice: A continuum of assessment practices to advance diversity, equity, and inclusion. In *Advances in educational marketing, administration, and leadership book series* (pp. 47–61). https://doi.org/10.4018/978-1-7998-4108-1.ch004
- Mathison, S. (2005). *Encyclopedia of evaluation.* Sage.
- Mertens, D. M., & Wilson, A. T. (2012). *Program evaluation theory and practice: a comprehensive guide.* Guilford Press.
- Stufflebeam, D. L., & Coryn, C. L. S. (2014). *Evaluation theory, models, and applications* (2nd ed.). Jossey-Bass.
- Wholey, J. S., Hatry, H. P., & Newcomer, K. E. (2010). *Handbook of practical program evaluation* (3rd ed.). Jossey-Bass.
- Yarborough, D. B., Shulha, L. M., Hopson, R. K., & Caruthers, F. A. (2011). *The program evaluation standards: a guide for evaluators and evaluation users* (3rd ed.). Sage.

? | REFLECTION QUESTIONS

Are we currently evaluating our WIL program? If yes:

- Why? What is the purpose?
- What assumptions about learners do I bring to the process?
- Is the evaluation being conducted for research or evaluation purposes?
- Does the evaluation include measures that are appropriate for the students in my program?
- What information is being collected? From whom?
- How can students be included in the evaluation process?
- What step am I at in the evaluation (e.g., data collection and analysis; reporting findings)?
- What was the process that got me to this point in the evaluation?
- How do I intend to use the information collected?
- How can my program evaluation be improved?
- How can I partner with diversity, equity, inclusion and decolonization experts at my institution to analyze and share results of my work?

Are we currently evaluating our WIL program? If no:

- How could my WIL program benefit from evaluation?
- What would be the best timing to begin a program evaluation of WIL?
- Who would I include?
- What do I intend to do with the information collected?
- What are the steps required for me to begin the evaluation process with my WIL program?
- How can I include equitable measures as part of my WIL program evaluation?

Questions of program effectiveness are commonly used to provide information on measurable outcomes of the program and an evidence-based rationale for continued program support and/or expansion.

RECOMMENDATIONS AND GUIDELINES

The Evaluation Process

Step 1
Develop an Evaluation Question

- Program evaluation begins with question generation.
- Evaluation questions are developed in consultation with stakeholders.

Step 2
Choose an Evaluation Paradigm

- Paradigms have different underlying philosophical assumptions.
- Four primary paradigms: postpositivist, constructivist, transformative, pragmatic.

Step 3
Select an Evaluation Model

- A model guides how the evaluation is done.
- Common models include: 4 Levels of Evaluation, CIPP, RE-AIM.

Step 4
Develop Evaluation Tools

- Determine methods required.
- Tools may be developed or selected and include questionnaires observation protocols and collection of administrative data.

Step 5
Data Collection & Analysis

- Quality is important.
- Various quantitative and qualitative approaches may be used.

Step 6
Present Findings

- The appropriate medium and main message may depend on the target audience.
- Report should lead to action.

PROGRAM SPOTLIGHT

OCAD University's ArtWorksTO Program

As noted in Chapter 4, ArtWorksTO is an example of student-centred supports. However, other elements of the program reflect the importance of sustainable WIL partnerships and program evaluation and development.

The launch of ArtWorksTO coincided with the beginning of the COVID-19 pandemic, which necessitated important changes for program delivery as it was originally intended to be delivered in person. Delivering a quality WIL program online presents various challenges, including difficulties connecting and networking with others, increased feelings of social isolation and understanding how to access supports (Chatoor, 2023). As the ArtWorksTO team adjusted, they realized the benefits of online delivery in creating greater access and outreach to students who otherwise might not have been able to participate in person. The ArtWorksTO team approached this challenge as an opportunity to improve their WIL program: they evaluated their program by first understanding the reality of how WIL must be reshaped in a post-COVID world (Dean & Campbell, 2020) and embraced the value of virtual WIL as an important point of accessibility (Chatoor, 2023; Jackson et al., 2017; Tunny et al., 2022). Moving forward, the program team has continued to redesign elements that allow both in-person and virtual participation, such as hosting a range of virtual and hybrid events that allow students to learn about careers in arts and culture in an engaging and accessible way.

WIL Program Evaluation Questions

An important first step in the evaluation process is to establish the evaluation question and the purpose for which a program evaluation is being conducted.

Having clear and relevant findings begins with identifying the purpose of the program evaluation and defining a clear evaluation question. There are three common purposes for evaluation: 1) to gain a better understanding of the needs within a particular context (needs assessment); 2) to identify ways to improve the implementation of the program (implementation); and 3) for the purpose of reporting the degree to which the program achieves its intended outcomes (evaluation of program effectiveness). Evaluation questions are developed based on the category or categories of program evaluation that suit the program evaluation needs, recognizing that a program evaluation may have more than one purpose and thus more than one evaluation question.

Program Evaluation Questions

Needs Assessment

Purpose
To gain an understanding of the needs and assets of a particular context

Impact
Identifies strengths and challenges and provides rationales for possible interventions

Stages
1. Pre-assessment
2. Assessment
3. Post-assessment

Implementation

Purpose
To identify ways to improve the operation of the program

Impact
Guides decisions on strategies to enhance program implementation and achievement of intended outcomes

Types
- Responsive
- Monitoring
- Developmental
- Process
- Participatory
- Formative

Effectiveness

Purpose
To report the degree to which the program achieves its intended outcomes

Impact
Identifies measurable outcomes of the program and provides rationales for continued program support

Types
- Summative
- Outcome/Impact
- Policy
- Replicability/Transferability

Needs Assessment

A common use for evaluation is to gain insight into the needs within a particular context. This type of evaluation, called needs assessment evaluation or needs and assets assessment, is typically done at the beginning of the program planning process to provide a picture of the community (context), identify strengths and areas in need of further support and provide guidance in the prioritization and use of resources (e.g., funding, time, personnel) (Mertens & Wilson, 2012; Rossi et al., 2004). The focus of the needs assessment evaluation can either be a context in which a WIL program may be implemented or the WIL program itself. A needs assessment evaluation is valuable for recognizing the government, industry, community and societal needs in the development stages of a new WIL program, with the intent of building mutually beneficial partnerships and aligning the student work with a recognized need. For existing WIL programs, a needs assessment evaluation is useful when there is a desire to rationalize, confirm or amend intended outcomes and directives of the program by demonstrating alignment with a recognized need. It is also useful for identifying any challenges, needs and/or resource requirements of the WIL program itself and developing recommendations for resolution.

As an example, an instructor leading a course on how to teach physical literacy to children conducts a needs assessment evaluation of the local community to identify a gap in children's physical activity programming and the ways in which students may fulfill this gap. The findings from this needs assessment evaluation are used to inform the development of a course-based placement program. In another example, the completion of a structured work internship exists as a program requirement in the school of business management. The class size has doubled, so a needs assessment evaluation is performed to determine the sustainability needs of the internship program. Findings from the evaluation are used to rationalize and prioritize the need for further institutional resources. Ultimately, needs and assets assessment questions are concerned with "establishing whether a problem or need exists and describing that problem" and "making recommendations for ways to reduce the problem; that is, the potential effectiveness of various interventions" (Fitzpatrick et al., 2011, p. 26).

In carrying out a needs assessment evaluation, there are three phases one should consider: pre-assessment, assessment and post-assessment (Mertens & Wilson, 2012). In the pre-assessment phase, evaluators review the status of the program or organization to identify information that is already known or available regarding its needs and assets. In the assessment phase, evaluators collect new information about the program. Finally, in the post-assessment phase, the information taken from the first two phases is integrated to inform the design of possible interventions.

Work-integrated learning co-ordinators can (and should) use evaluation to plan and improve programming to better meet stakeholders' needs and to continually improve the educational quality and inclusiveness of the WIL experience.

Implementation

Types of Implementation Evaluation	
Responsive evaluation	Determine the congruency between planning and delivery
Monitoring	Identify progress towards intended outcomes
Developmental evaluation	Focus on program development/adaptation
Process evaluation	Determine the effectiveness of implementation
Participatory evaluation	The evaluation team includes multiple stakeholders
Formative evaluation	Includes multiple stakeholders and informs any need for improvement

(Mertens & Wilson, 2012)

Evaluations that focus on ways to improve the program implementation, including the processes, materials or staffing, are termed ***implementation evaluation*** (Mertens & Wilson, 2012). Implementation evaluation can be used to inform ways in which the operation of a WIL program may be improved and inform strategies to enhance the achievement of intended program outcomes.

When the goal is to find ways to enhance student learning outcomes achieved through participation in a WIL program, there are three helpful implementation evaluation questions (Fixsen et al., 2005): 1) Were the required resources available? 2) To what extent was the program implemented according to the core components described in the plan? and 3) How competent were the service providers, with specific reference to the program's core competences? Other questions you might include in an implementation evaluation include: What aspects of the implementation process are facilitating success or acting as stumbling blocks for the WIL program?; To what extent is the program serving the intended participants? Who is being excluded and why?; How is the program being implemented and how does that compare to the initial plan for implementation?; and What changes might be necessary in organizational structure, recruitment materials, support for participants, resources, facilities, scheduling, location, transportation, strategies or activities to better enhance program implementation? (WKKF evaluation handbook, 1998, p. 24).

As an example, a co-ordinator of a longstanding co-op program might conduct an implementation evaluation to assess students' and employers' satisfaction with various aspects of the co-op program, such as the quality of student co-op positions available, the ease of the interview process, the type and quality of work performed, the duration of work, compensation, the support provided by the academic institution and recommendations for improvement. Information collected through this evaluation study is then used to inform strategies for enhancing the implementation of the co-op program in alignment with the intended outcomes.

There are several types of implementation evaluation, including responsive evaluation, monitoring, developmental evaluation, process evaluation, participatory evaluation and formative evaluation (Mertens & Wilson, 2012). These types focus on why (or why not) desired outcomes are achieved, and what needs to be changed to achieve the intended outcomes.

Responsive evaluation asks questions about the congruency between what was planned and what was delivered, the strength of the treatment (e.g., how much of the intervention was actually delivered) and changes in the program from beginning to end (Stake, 1991).

Monitoring involves an ongoing assessment of a program's progress towards intended outcomes (Mertens & Wilson, 2012). For example, one might ask the questions: Is the WIL program achieving its objectives? Is the program measuring up against performance standards?

Developmental evaluation focuses on ongoing development and is distinct from the other types of implementation evaluation in that it seeks to develop something, such as a program, through means of ongoing adaptation (Donaldson et al., 2010).

Process evaluation assesses the effectiveness of a program's implementation and is arguably the most frequent form of program evaluation (Rossi et al., 2004). This type of evaluation investigates how well the program is operating, how consistent the services are with the goals of the program, whether services are delivered to appropriate recipients, how well service delivery is organized and the use of program resources (Rossi et al., 2004).

Participatory evaluation includes the involvement and representation of one or more stakeholder groups constituting the evaluation team (Greene, 1988). This involves stakeholders' participation in directly planning, conducting and analyzing the evaluation in collaboration with the evaluator (Rossi et al., 2004). This approach emphasizes close collaboration with those who will use the evaluation findings to ensure that the evaluation meets their needs and produces useful information (Patton, 1997).

Finally, the purpose of ***formative evaluation*** is to inform improvement of any aspect of the program, such as the program's design,

implementation, impact or efficiency (Rossi et al., 2004; Wholey et al., 2010). Similar to participatory evaluation, the evaluator usually works closely with stakeholders to produce timely, concrete and immediately useful information (Rossi et al., 2004).

Effectiveness

The third purpose of evaluation is to assess a program's effectiveness. Questions that fall under this category seek to answer the degree to which the program achieves its intended outcomes. Questions of program effectiveness are commonly used to provide information on measurable outcomes of the program and an evidence-based rationale for continued program support and/or expansion.

As an example, for several years a department has run a directed research program in which students work as research lab assistants and complete an independent project in alignment with their area of study. The research program is very popular, with both strong student and workplace interest. It has also received positive attention from administrators outside the department because of its alignment with the strategic mandate of the institution — to enhance students' research skills. There is discussion about expanding the program's availability to students across the institution. However, before making this decision, the program co-ordinator is asked by the institution's senior administration to provide empirical support of the outcomes achieved by this program. To provide this information, the program co-ordinator evaluates the students' knowledge and skills in research methodology and methods, data collection and analysis techniques and approaches to research dissemination pre- and post-participation in the directed research program.

Evaluation of program effectiveness ultimately seeks to produce evidence-based support of the impact of the WIL program. This category includes summative evaluation, outcome/impact evaluation, policy evaluation and replicability/ transferability evaluation (Mertens & Wilson, 2012).

Summative evaluations are done at the end of or upon completion of a program and assess skills development, knowledge gain and/or attitude and behaviour changes by program participants (Mertens & Wilson, 2012).

Outcome/impact evaluations are typically used to assess short-term (outcome) and long-term (impact) results of a program (Mertens & Wilson, 2012). Results can be considered at the individual level (e.g., what difference did the WIL program make in the lives of the individuals who participated in it?) or at a much broader level (e.g., what impact did the program have on the workplace organization, community, society or academic institution?). Questions that evaluators can ask when conducting an outcome/impact evaluation include: What are the critical outcomes the program is trying to achieve? What impact is the program having on the students, the employers, the institution and the community? What unexpected impact has the program had? (WKKF, 1998).

Policy evaluations are used specifically to assess the effectiveness of programs for changing policy (Mertens & Wilson, 2012). Evaluators doing this kind of evaluation may ask: What types and levels of policy need to be changed? Which persons or agencies need to be contacted and influenced? What do stakeholders need to hear? (WKKF, 1998).

Finally, ***replicability/transferability*** evaluations are important because they assess whether a program can be transferred to another setting or context (Mertens & Wilson, 2012). For example, a replicability evaluation may test whether a piloted co-op education program in a hospital setting would be successful in an educational or clinical setting. Important questions to consider when conducting a replicability evaluation include: What is unique about this program? Can the program be effectively replicated? What are the critical implementation elements? (WKKF, 1998).

Types of Evaluation to Assess Effectiveness	
Summative evaluation	Knowledge, skill and attitude gained during the WIL program
Outcome/Impact evaluation	Short-term (outcome) and long-term (impact) results
Policy evaluation	Change in policy
Replicability/ Transferability evaluation	Use in another setting or context

(Mertens & Wilson, 2012)

★ | PROGRAM SPOTLIGHT

Humber College WIL Institutional Toolkit

Humber College Institute of Technology and Advanced Learning has developed a WIL Institutional Toolkit as an internal resource for the institution. The toolkit includes a WIL framework and quality assurance guidelines, WIL/workplace accommodation tools, targeted equity, diversity, inclusion and belonging (EDIB) career resources and programming and the Humber Learning Outcomes (HLOs) in WIL.

The framework provides the overall strategic orientation for WIL at Humber along with a set of core philosophical, legal and ethical considerations to guide WIL program planning. Their WIL Quality Assurance (QA) Framework is a companion guide, designed to enable the application and assessment of the principles outlined in the WIL framework. Together, these resources provide program planners with the necessary tools to understand and plan for continuous improvement of WIL program components at Humber with explicit commitments to equity in WIL.

The toolkit features practical tools for students, employers and college faculty and staff, including *Career Conversations for Learners with Disabilities – Resource Guide, Supporting Student Employees with Disabilities – Resource Guide* and strengths-based career assessments including the *DICE (Disability Impact on Career and Employment) Assessment*. The toolkit also includes resources that support EDIB practices in WIL such as how to support successful transitions to work for students with disabilities and employment information for Indigenous students. The academic accommodations process and memo have been adapted to incorporate early assessment of workplace accommodation needs that can support these students in their WIL experience. Together, these resources offer and reflect student-centred support, placing students at the forefront of WIL activities and supporting more inclusive environments, both in the workplace and at the institution.

The HLOs were developed with four mindsets, two of which focus on advancing equity (i.e., the EDIB mindset and the Indigenous Ways of Being, Knowing and Doing mindset). The HLOs ensure that students are provided with explicit opportunities to gain experience in these attributes as a value-add to program-specific knowledge and skills. The HLOs exemplify how program development and evaluation can reflect EDIB across all stages of the WIL programming, including its outcomes. As an assessment tool, HLOs can be imbedded into all aspects of the WIL experience, including learning plans, industry agreements, industry feedback and student reflections, situating EDIB as an educational goal for students, employers and WIL practitioners.

Implementation questions are used to identify ways in which the operation of a WIL program may be improved and inform strategies to enhance achievement of intended program outcomes.

Paradigms and Models for Evaluating WIL Programs

After developing an evaluation question or questions, the next steps in the evaluation process are to choose an evaluation paradigm and select an evaluation model. Every evaluation is guided implicitly or explicitly by a set of beliefs in the evaluation process.

These evaluation beliefs, termed paradigms, are described by Guba and Lincoln (1994) as the "basic belief system or worldview that guides the investigator" (p. 105) and are made up of four sets of philosophical assumptions about underlying values (axiology), the nature of knowledge (ontology), the way knowledge is produced (epistemology) and the approach used for knowledge production (methodology) (Guba & Lincoln, 1989, 2005). The four paradigms that are common in today's evaluation world include: postpositivist, pragmatic, constructivist and transformative (Mertens & Wilson, 2012).

A number of evaluation models have been developed within each of the four evaluation paradigms. An evaluation model provides "a set of rules, prescriptions, and prohibitions and guiding frameworks that specify what a good or proper evaluation is and how it should be done" (Alkin, 2004, p. 5).

Understanding the evaluation paradigm underlying each evaluation model and contrasting its assumptions with the viewpoints of the evaluation team can assist in selecting the model with the best fit. Also, it is important to identify the appropriate evaluation paradigm and evaluation model in order to guide how the evaluation is conducted, the interpretation of the evaluation findings and the standards by which to evaluate the quality of the program evaluation itself.

Evaluation Paradigms (Mertens & Wilson, 2012)

Postpositivist

Axiological assumption:
Respect, justice, beneficence

Ontological assumption:
One reality knowable within a certain level of probability

Epistemological assumption:
Distant, objective

Methodological assumption:
Scientific method, quantitative methods

Pragmatic

Axiological assumption:
Gain knowledge in pursuit of desired ends as influenced by the evaluator's values/politics

Ontological assumption:
There is a single reality, all individuals have their own unique interpretation of reality

Epistemological assumption:
Relationships in evaluation are determined by what the evaluator deems appropriate to that particular study

Methodological assumption:
Match methods to specific questions and purposes of research; mixed methods

Constructivist

Axiological assumption:
Evaluator is aware of own values and those of the research participants

Ontological assumption:
Multiple, socially constructed realities

Epistemological assumption:
Meaningful dialogue and reflection to create knowledge

Methodological assumption:
Qualitative, but quantitative too; participatory

Transformative

Axiological assumption:
Respect for cultural norms; promotion of human rights and increase in social justice

Ontological assumption:
Recognizes that various versions of reality are based on social positioning; awareness of consequences of privileging versions of reality

Epistemological assumption:
Interactive link between evaluator and stakeholders; need to address issues of power and trust

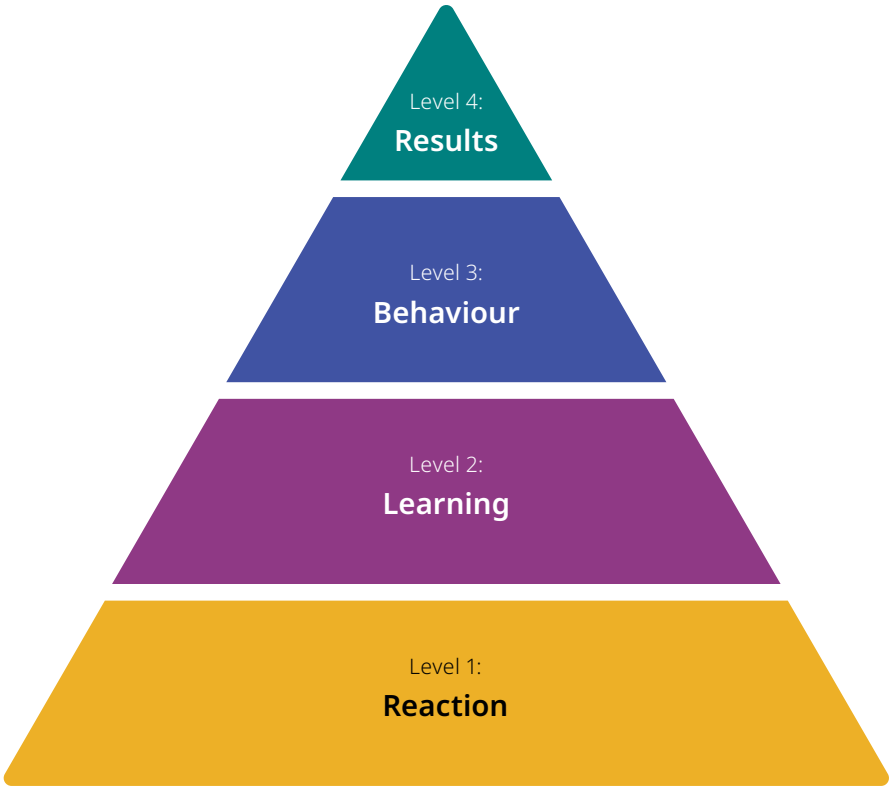
Methodological assumption:
Qualitative, but quantitative and mixed methods can be used

Postpositivist Paradigm: Kirkpatrick Four Levels Model

The postpositivist paradigm is viewed in the social sciences as a means of improving society by applying scientific methods to explore laws about human behaviour (Mertens & Wilson, 2012). The ontological belief of postpositivists is that there is only one reality and that reality can be known within a certain level of probability (Mertens & Wilson, 2012). Epistemologically and methodologically, postpositivists believe that distance from the subject/object being studied avoids biases and that reality is best studied using quantitative approaches (Fielding, 2009; Mertens & Wilson, 2012). According to Jennings and Callahan (1983), good research under a postpositivist paradigm reflects "intellectual honesty, the suppression of personal bias, [and] careful collection of empirical studies" (p. 159).

One of the most notable postpositivist evaluation theorists is Donald Kirkpatrick, well known for the development of the Kirkpatrick Four Levels Model for the evaluation of training programs. The Kirkpatrick model has four levels on which participants are evaluated: reactions, learning, behaviour and results (Mertens & Wilson, 2012; Kirkpatrick & Kirkpatrick, 2006; 2007). According to Kirkpatrick and Kirkpatrick (2006), the four levels represent a sequence of ways to evaluate programs. The first level, ***reactions***, focuses on participant satisfaction and is a measure of how those who participate in a program react to it (Kirkpatrick & Kirkpatrick, 2006). Questionnaires are commonly employed to explore whether participants found the program relevant, interesting, enjoyable, worthwhile and/or appropriately conducted (Mertens & Wilson, 2012). The second level, ***learning***, is measured based on the extent to which participants change attitudes, improve knowledge and/or increase skills as a result of attending the program (Kirkpatrick & Kirkpatrick, 2006; Mertens & Wilson, 2012). The third level, ***behaviour***, refers to changes in performance (behaviour) in an actual job setting or simulated situation based on the participant's participation in the program (Kirkpatrick & Kirkpatrick, 2006; Mertens & Wilson, 2012). Finally, the fourth level, ***results***, refers to the impact of the program in terms of its ability to achieve its objectives, or the final results of the participants attending the program (Kirkpatrick & Kirkpatrick, 2006; Mertens & Wilson, 2012). While this model could be used to answer any category of evaluation questions, given the purpose for which it was developed, it is commonly used to answer questions about implementation and effectiveness in program evaluation.

As an example, to evaluate and report on an eight-month-long internship program facilitated during the school year, one might use reaction surveys (with both quantitative and qualitative measures and questions) to gauge student satisfaction with the program; an online test covering the intended learning outcomes of the program for knowledge acquisition to assess student ***learning***; role-playing scenarios to evaluate ***behaviour***; and mentors' written feedback as well as student reflective journals to evaluate ***results***.



Kirkpatrick Four Levels Model

(Mertens & Wilson, 2012)

GIVE IT A TRY!

Sample WIL Student Questionnaire:
Evaluation *Reaction*

Please provide honest reactions and comments. Your feedback will help to evaluate this WIL program and improve future WIL programming.

1. How do you rate the WIL program? (interest, benefit to your academic learning, quality of work you completed, etc.)

   ○ Excellent ○ Very good ○ Good ○ Fair ○ Poor

Comments and suggestions:

2. How do you rate your mentor? (knowledge of field, ability to communicate, supportive, likeable, etc.)

   ○ Excellent ○ Very good ○ Good ○ Fair ○ Poor

Comments and suggestions:

3. How do you rate the facilities in which you completed your WIL placement? (e.g., building/clinic/landscape, location, comfort, convenience, etc.)

   ○ Excellent ○ Very good ○ Good ○ Fair ○ Poor

Comments and suggestions:

4. How do you rate your workload and schedule? (amount of work, number of hours, etc.)

   ○ Excellent ○ Very good ○ Good ○ Fair ○ Poor

Comments and suggestions:

GIVE IT A TRY!

Sample WIL Student Questionnaire (cont'd)

5. How do you rate the WIL program as an educational experience to enhance your academic degree?

○ Excellent ○ Very good ○ Good ○ Fair ○ Poor

Comments and suggestions:

6. How pertinent was the WIL placement to your needs and interest?

○ Not at all ○ To some extent ○ Very much

Comments and suggestions:

7. What would have improved your experience?

Sample WIL Student Interview Guide: Evaluation *Behaviour*

Process:

The interviewer reviews the WIL placement with the students and highlights the behaviours that the placement encouraged. The interviewer then clarifies the purpose of the interview, which is to evaluate the students' placement experiences so that improvements can be made in the future. Specifically, the interview will determine the extent to which the suggested behaviours have been applied. If they have not been applied, the evaluation will seek to learn why.

Interview questions:

1. What specific behaviours were you taught and encouraged to use?
2. When you were in your placement, how eager were you to change your behaviour(s)?
3. From your perspective, how well equipped were you to do what was asked of you during your placement?
   - If you are not doing some of the things that you were encouraged and taught to do, why not?
4. To what extent do you plan to do things differently in the future?
5. What suggestions do you have for making your WIL placement more helpful?

Adapted from Kirkpatrick and Kirkpatrick (2006).

Pragmatic Paradigm: CIPP Model

Unlike the postpositivist paradigm, the pragmatic approach rejects the claim that 'truth' can be discovered through scientific methods, instead valuing common sense and practical thinking (Mertens & Wilson, 2012). Pragmatists see the value of conducting an evaluation of the results produced and how they are used (Christians, 2005; Mertens & Wilson, 2012) rather than simply performing an evaluation for the sake of it. Ontologically, pragmatists believe that there is one reality but that it is interpreted in different ways by different people. The epistemological belief belonging to the pragmatic paradigm emphasizes studying what is of interest or value to an evaluator (Tashakkori & Teddlie, 1998) and not detaching yourself from the data. Finally, the methodological preference of pragmatic evaluators is mixed methods, reinforcing the idea that the method should always match the purpose of the study (Patton, 2002).

One of the founding theorists in this paradigm is Ralph Tyler, who is known for the Objectives-based Evaluation Approach (Christie & Alkin, 2005). Objectives-based evaluation entails:

1. Formulating a statement of educational objectives;
2. Classifying these objectives into major types;
3. Defining and refining each of these types of objectives in terms of behaviour;
4. Identifying situations in which students can be expected to display these types of behaviours;
5. Selecting and trying promising methods for obtaining evidence regarding each type of objective;
6. Selecting, on the basis of preliminary trials, the more promising appraisal methods for further development and improvement; and
7. Devising means for interpreting and revising the results (Christie & Alkin, 2005, p. 281).

This approach links program objectives with outcomes measures and is the forerunner to Stufflebeam's CIPP model for program evaluation. Daniel Stufflebeam began his career in the mid-1960s developing objectives for educational programs and then measuring the outcomes to see if those objectives had been achieved. Based on this original work, Stufflebeam developed the CIPP (context, input, process, product) model (Stufflebeam et al., 1971). The work of Stufflebeam and the CIPP model changed the focus of evaluation from the measurement of objectives to "a process for identifying and judging decision alternatives" (Stufflebeam, 1982, p. 16). The CIPP model is used to answer needs assessment, implementation and effectiveness questions in program evaluation, with the quality of the evaluation judged by the usefulness of the evaluation results. In this model, the stakeholders and their need for information are considered and incorporated into the evaluation process.

Evaluation should be viewed as a continuous system towards growth and an integral component of the WIL program.

CIPP is an evaluation model aimed at evaluating the context, inputs, processes and products of a program. Mertens and Wilson (2012) describe ***context evaluation*** as providing the big picture within which a program and its evaluation exist. More specifically, context evaluation can be used to assess the needs, problems, assets or opportunities of an organization in order to plan a structured work experience suitable for that organization (Mertens & Wilson, 2012; Stufflebeam & Coryn, 2014). ***Input evaluation*** requires collecting information about a program's mission, goals, plan, constituents, staff, timetable, resources, progress to date, accomplishments and/or recognitions (Stufflebeam, 2007). An input evaluation of a WIL program could examine the goals of the program, plans for recruiting new worksites, or the timetable for matching students with worksite supervisors and structured work experiences. These data could then inform the allocation of resources and program plans for the upcoming academic year. Where input evaluations focus more on program planning, ***process evaluations*** target the quality and appropriateness of a program's implementation (Mertens & Wilson, 2012; Stufflebeam & Coryn, 2014). Process evaluation is useful in determining whether a program's possibly deficient outcomes are due to the program itself or to its inadequate implementation

(Stufflebeam & Coryn, 2014). In performing a process evaluation of a WIL program, an evaluator may examine if and how intended learning outcomes of the program are being achieved, as well as possible strategies for improvement. Lastly, ***product evaluation*** helps to identify and assess a program's intended and unintended outcomes (Stufflebeam & Coryn, 2014). Feedback about the outcomes of a WIL program may be useful for reporting program effectiveness and justifying continued or enhanced support. Product evaluation feedback is important both during and at the conclusion of the WIL experience and may be collected through various means including surveys, group interviews, case studies, concrete examples (e.g., written pieces or work products), comparisons against a comprehensive checklist or comparisons with itself at different points throughout the program. Combining these four concepts together, the CIPP model can and should be used in both formative and summative evaluations of WIL programs.

The CIPP model can be helpful in evaluating the development and conduct of a WIL program or in judging its positive and negative outcomes. According to Stufflebeam and Coryn (2014), the CIPP model "embodies the contention that societal groups cannot make their programs, services, and products better unless they learn where these are weak and strong" (p. 336). As an example, in evaluating areas for improvement in a co-op program using the CIPP model, you might distribute surveys to participating workplace supervisors and include questions such as: To what extent did this program meet the needs of the workplace organization? (***context***); How well were the learning outcomes of the program converted to a sound, feasible learning plan for students in your organization? (***input***); To what extent was the learning plan carried out as planned? (***process***); Were there any unanticipated negative or positive side effects as a result of the WIL program? (***product***).

Pragmatic Paradigm: The RE-AIM Framework

Another popular evaluation model is the RE-AIM framework (reach, efficacy, adoption, implementation and maintenance). The RE-AIM framework, developed by Glasgow et al. (1999), is gaining popularity in the field of implementation science as a way to help plan research-based intervention programs and improve their chances of working in a real-world context (http://www.re-aim.org). This framework is used for considering both internal validity and transferability of a program to different contexts (Glasgow et al., 1999), and may be used to answer questions about needs assessment, implementation and effectiveness in WIL program evaluation. Within this framework, ***reach*** refers to the proportion of the target population that participated in the WIL program and the characteristics of these program participants (e.g., proportion of student population, student demographics) (Glasgow et al., 1999). ***Efficacy*** refers to the positive and negative consequences of program participation (Glasgow, et al., 1999). For WIL, positive outcome measures might include factors such as the learning outcomes achieved, student and worksite satisfaction, workplace productivity and employment following graduation. As well, examples of negative outcomes measures include issues in the workplace, and consequences of the time commitment/effort directed to the structured work experience. ***Adoption*** refers to the proportion of settings that plan to adopt the program (Glasgow et al., 1999). For WIL program evaluation, this could include adoption of the program across the institution or across worksites. ***Implementation*** refers to the extent to which the program is implemented as intended (Glasgow et al., 1999). For WIL program evaluation, this could entail an examination of how closely the program's operations align with its original plans, and strengths and challenges in the process of program implementation. Finally, ***maintenance*** refers to the extent to which a program is sustained over time (e.g., WIL program duration and partnership sustainability) (Glasgow et al., 1999). Using this framework, program effectiveness constitutes a combination of efficacy and implementation (Glasgow et al., 1999).

The RE-AIM framework can be used to evaluate a WIL program or the implementation of the structured work experience of the student(s) in achieving the intended outcomes of the workplace — particularly those work experiences in which there is a strong focus on applying theory to practice to implement change.

R	**Reach** Proportion of the target population that participated in the program
E	**Efficacy** Success rate defined by positive outcomes minus negative outcomes
A	**Adoption** Proportion of settings that plan to adopt the program
I	**Implementation** Extent to which the program is implemented as intended
M	**Maintenance** Extent to which a program is sustained over time

? | REFLECTION QUESTIONS

Context

- To what extent does your WIL program target important community and beneficiary needs?
- What contextual factors help to facilitate WIL success? What factors act as stumbling blocks?

Input

- What are the most promising approaches to WIL in meeting set learning outcomes and goals?
- How can the most promising approach be effectively designed, funded and implemented?
- What might be some barriers to effective implementation?
- To what extent are the structure, procedure and plan of your WIL program consistent with your academic institution's values, mission statement and objectives?

Process

- What are the critical components and/or activities of the structured work placement (both explicit and implicit)?
- How do these activities connect to the goals and intended outcomes of the academic curriculum?
- What aspects of the implementation process are facilitating success or acting as stumbling blocks for the WIL experience?

Input

- What are the learning outcomes you are trying to achieve through the structured work experience?
- What impact does WIL have on students, workplace supervisors/workplace organizations, the academic institution and the broader community?
- What unexpected impact has the WIL had on students, workplace supervisors/workplace organizations, the academic institution and/or the broader community?

Adapted from Mertens & Wilson (2012) and Stufflebeam & Coryn (2014).

Constructivist Paradigm: Scriven's Goal-free Approach to Evaluation

The constructivist approach to evaluation attempts to understand meaning from the perspective of those who have had the experiences (Schwandt, 2000). The act of evaluation, then, is to make visible these understandings for stakeholders involved in the evaluation process. Accordingly, the axiological position of constructivists is that evaluators operating within this paradigm should be aware of their own personal values and how these values influence the research process and outcomes (Ponterotto, 2005). Constructivists also hold that it is not possible to remove the values of the evaluator from the research process, but rather that these should be an integral part of the research process (Mertens & Wilson, 2012). The ontological perspective of constructivists is that there are multiple socially constructed perspectives and views of reality (Guba & Lincoln, 2005). Reality and knowledge are co-constructed under a constructivist paradigm, specifically through interactive and meaningful dialogue between the researcher and the research participants. Therefore, the epistemology of constructivists "requires close, prolonged interpersonal contact with the participants in order to facilitate their construction and expression of the 'lived experience' being studied" (Ponterotto, 2005, p. 131). Finally, to be able to co-construct reality and have meaningful interactions with research participants, researchers often use qualitative methods (e.g., interviews, observation, document review) (Mertens, 2010; Mertens & Wilson, 2012); although researchers are not limited to qualitative data collection (Lincoln, 2010). Common methodological approaches include, for example, narrative evaluation, ethnography, autoethnography evaluation, oral history and phenomenology.

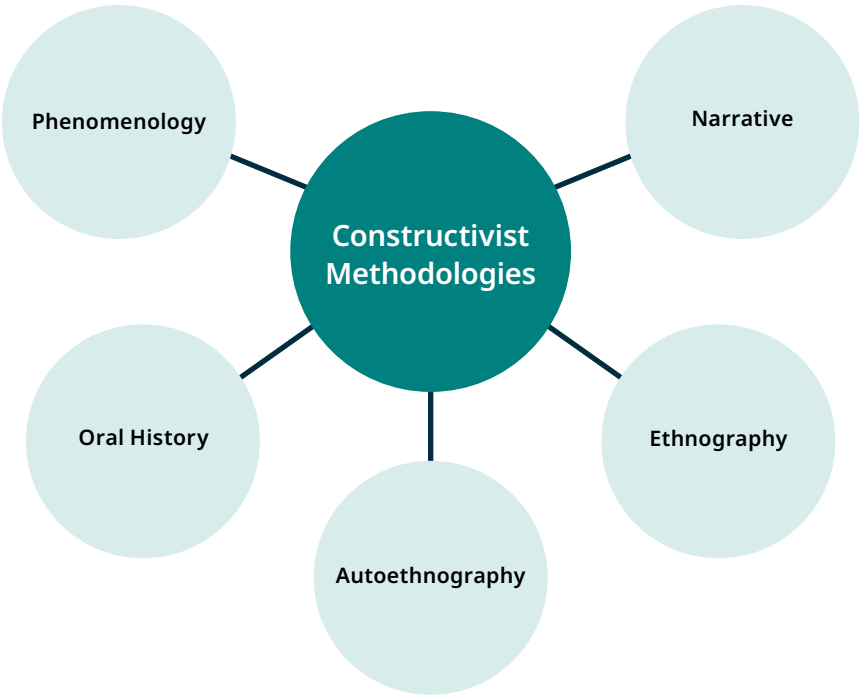
While no program evaluation model exists that has been derived specifically from the work of constructivist theorists, Scriven's goal-free approach to evaluation falls under the constructivist paradigm and applies well to the evaluation of WIL programs.

The goal-free approach to evaluation is an approach or a position taken by the evaluator in the evaluation process and is not necessarily a formalized standalone evaluation model like those previously discussed postpositivist and pragmatic paradigms. Aligned with the core values of the constructivist paradigm, Michael Scriven's goal-free evaluation approach suggests that evaluators should limit their role in examining whether programs achieve their stated objectives or not and instead be open to uncovering unanticipated outcomes of a program (Mertens & Wilson, 2012; Stufflebeam & Coryn, 2014). Therefore, the purpose of evaluation under a goal-free approach is to determine the merit and worth of

the program under study, irrespective of the intended program outcomes (Mertens & Wilson, 2012). As a part of this approach, there is also an emphasis on including novel perspectives in the program evaluation process — particularly additional evaluators who are unaware of the program's stated goals and therefore search for all effects of a program regardless of its developer's set objectives (Stufflebeam & Coryn, 2014). The rationale behind this approach is, "If a program is doing what it is supposed to do, then the [goal-free] evaluation should confirm this" (Stufflebeam & Coryn, 2014, p. 348).

As an example, you might solicit external evaluators who are not aware of the specific goals and intended learning outcomes of the WIL program to conduct the program evaluation. The evaluators may then conduct focus group interviews and observations to determine what outcomes the workplace supervisors and students view as having been achieved. Examples of goal-free questions might include: What were the positive and negative effects of the program? What was learned? How are these effects judged regarding criteria of merit, such as quality of collaboration within the community? How significant were the program's outcomes compared to the needs of the involved students and surrounding community?

Constructivist Paradigm: Scriven's Goal-free Approach to Evaluation



Constructivist Paradigm: Case Study Approach

A second approach to evaluation under the constructivist paradigm is the case study approach. Case studies can be used to gain an understanding of day-to-day activities of a particular program to uncover hidden meanings (Mertens & Wilson, 2012). The signature feature of this approach is an in-depth, non-interventionist examination of the case in its natural setting and subsequently providing an illuminative report (Stufflebeam & Coryn, 2014).

Under this approach, the evaluator would work closely with the primary stakeholders of the program to carry out the evaluation, including co-constructing recommendations for the program based on the evaluation findings. Ultimately, the evaluator "prepares and issues an in-depth report on the case, with descriptive and judgmental information, perceptions held by different stakeholders and experts, and summary conclusions" (Stufflebeam & Coryn, 2014, p. 292). As an example, if you have received negative feedback from students year after year who participate in a field experience at the same community organization, you may choose to perform a case study evaluation to develop a full understanding of the organization and its contributions relative to the facilitation of student learning. As such, an evaluator might interview students about their experiences, conduct focus groups with employees of the organization and the WIL supervisor(s), as well as make unannounced visits to the clinic. A detailed account of the clinic and of students' and workplace supervisors' experiences during the field experience could be used to inform whether it is a worthwhile partnership to maintain moving forward.

Transformative Paradigm: Participatory Transformative Evaluation

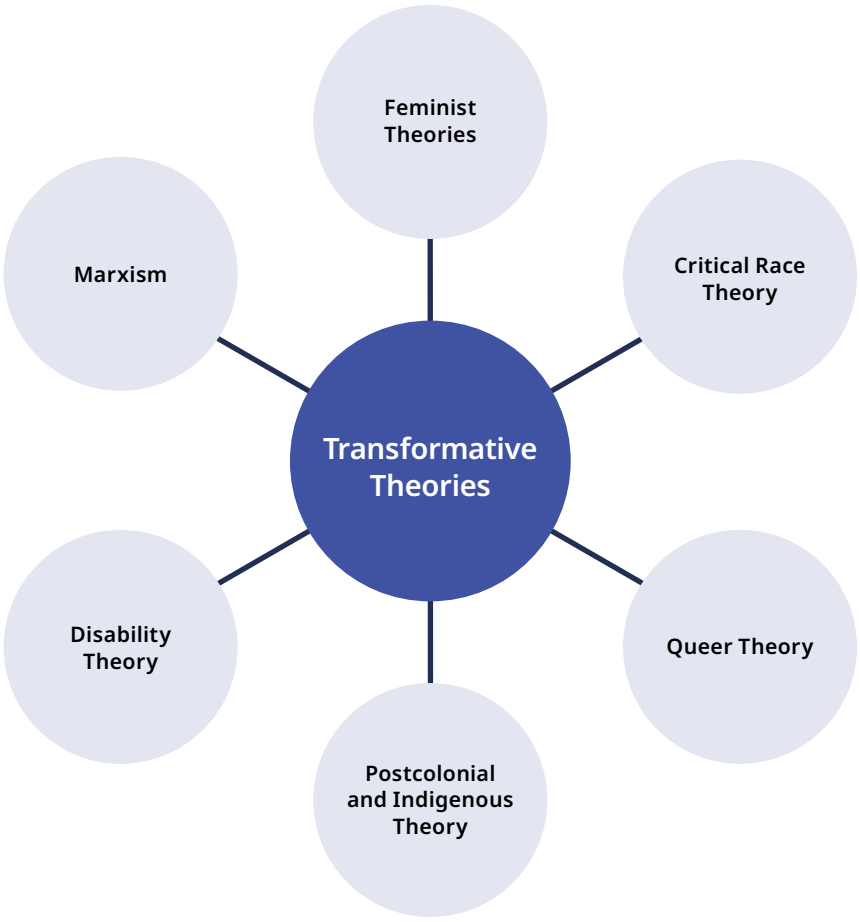
The transformative paradigm focuses primarily on addressing issues of power and inequity in the pursuit of furthering human rights and social justice (Mertens & Wilson, 2012). Theoretical perspectives that address issues of power inequities, the impact of privilege and the consequences of these for achieving social justice include critical theory, feminist theory, postcolonial and Indigenous theory, queer theory, Marxism, critical race theory and disability theory. Denzin and Lincoln (2005) write, "This paradigm ... articulates an ontology based on historical realism, an epistemology that is transactional, and a methodology that is both dialogic and dialectical" (p. 187). The axiological assumptions of the transformative paradigm hinge on four principles: 1) the

importance of being culturally respectful; 2) the promotion of social justice; 3) the furtherance of human rights; and 4) addressing inequities (Mertens, 2009). The principles of ethics, respect, beneficence and justice are relevant to a transformative evaluator (Mertens & Wilson, 2012). The ontological perspective of a transformative evaluator is that reality is multifaceted, and there are many different opinions on what reality is (Mertens & Wilson, 2012). The transformative paradigm "interrogates versions of reality on the basis of power inequities and the consequences of accepting one version of reality over another" (Mertens & Wilson, 2012, p. 169). The epistemological assumption held by transformative evaluators is that knowledge is constructed within a context of power and privilege, with consequences attached to whichever version of knowledge attached to whichever version of knowledge is being given privilege (Mertens & Wilson, 2012). This requires evaluators to have a close, collaborative and co-operative relationship with stakeholders. Finally, the methodological position of a transformative evaluator supports that no single methodology best represents this paradigm. Instead, methodological decisions are made to facilitate the use of the process and findings to enhance social justice; identify systematic forces that support the status quo; and acknowledge the need for a reflexive relationship between the stakeholders and the evaluator (Mertens & Wilson, 2012).

Similar to the constructivist paradigm, there are no specific evaluation models that exist in this paradigm. Rather, any number of theoretical approaches with the lens of enhancing social justice may be applied to the program evaluation, thus aligning the evaluation within the transformative paradigm. Examples of applicable theories include feminist theories, critical race theory, queer theory and postcolonial and Indigenous theory (Mertens, 2009). One approach within this paradigm that may be useful for WIL program evaluation is the participatory transformative approach to evaluation.

The participatory transformative approach to evaluation has largely been developed by the work of Donna Mertens. Mertens and Wilson (2012) describe this approach as "conducted with the intent to stimulate action that is directly related to the furtherance of social justice" (p. 211). This type of evaluation includes marginalized groups of people in an effort to address power inequities and is rooted in the proposition that all knowledge claims are situational (Mertens & Wilson, 2012; Stufflebeam & Coryn, 2014). Under this approach, mixed methods are common, both qualitative and quantitative, and evaluation questions are often derived from marginalized groups within a particular program. Transformative participatory evaluation requires an interactive and collaborative relationship between the evaluator and program participants. Therefore, it is critical that at every stage of the evaluation — planning, conduct, analysis, interpretation and use of findings — the participants are included (Stufflebeam & Coryn, 2014). The value of a transformative approach to evaluation is that it can lead to policy changes towards greater social justice.

For example, an evaluator visits a summer internship program worksite where students are employed as interns with an investment management firm. The evaluator notices that the power structure is comprised predominantly of male staff in director roles and female staff performing administrative work, roles that are also mirrored among the male and female interns. After conducting interviews with the staff at the worksite, the evaluator writes a final report focusing on the finding that female staff members and female interns are not given equal opportunities to direct decisions made at the worksite. As a result of the report, the firm revises its policy around equity and equality, hires more women into director roles and balances the work of male and female interns in the firm.



★ | PROGRAM SPOTLIGHT

University of Toronto's Advancing Equitable and Inclusive Experiential Learning Opportunities Framework

Advancing Equitable and Inclusive Experiential Learning Opportunities is a five-stage framework created by the University of Toronto. The goal is to equip WIL practitioners to provide programming that is equitable, inclusive, accessible and engaging. One aspect of the framework that ties each stage together is the emphasis on critical self-reflection in quality WIL program development. It is important for WIL practitioners to engage in critical self-reflection activities throughout WIL programming because it helps them evaluate their role and positionality as an advisor and learn how to provide quality workspaces and academic supports for WIL students (Eady et al., 2022; Jackson et al., 2017; Nielsen et al., 2022). This framework also enables WIL practitioners to evaluate their work, identify any existing harmful or exclusive practices and adjust them in a practical way. The five-stage framework involves a continuous process of strategic planning and logistics, design and delivery, promotion and outreach, student preparation and supports and evaluation. Importantly, this process aligns aspects of experiential learning with principles of equity, diversity and inclusion, which is critical to the iterative and context-specific nature of quality WIL programming (Craig et al., 2022; Jackson et al., 2023).

Five-Stage Framework to Advancing Equitable and Inclusive Experiential Learning

★ | PROGRAM SPOTLIGHT

University of Toronto's Advancing Equitable and Inclusive Experiential Learning Opportunities Framework (cont'd)

The following is a brief overview of each stage of the framework:

1. **Strategic planning and logistics:** Practitioners are asked to reflect on who is involved in developing their WIL program and how meaningful relationships can be developed with partners. Then they are offered suggestions about the types of funding available for WIL programs such as teaching support, administrative staff and college registrars. Engaging in inclusive training (such as unconscious bias training) prior to the start of the program is also encouraged.
2. **Design and delivery:** This stage emphasizes equity, diversity and inclusion, which encourages practitioners to consider the needs of the intended student population, accessibility supports for virtual and physical work environments (i.e., providing closed captioning in virtual meeting spaces), and incorporate principles of Universal Design for Learning during student assessment and reflection.
3. **Promotion and outreach:** Suggestions for this stage involve hosting a student panel of former WIL participants to share their experiences, using accessible and inclusive language in promotional activities (such as gender-inclusive language), and being transparent in the WIL posting about expectations so students are in the best position to make an informed decision. This includes location and transportation options, renumeration and types of supports available.
4. **Student preparation and supports:** Considering the intersectional needs of each student, this stage asks practitioners to familiarize themselves with different accommodation requests, consider ways to remove barriers to participation in WIL (such as offering flexible work options) and offer cultural awareness training for employers.
5. **Evaluation:** This stage highlights the value in consistent feedback and evaluation from students and employers. Practitioners are guided to reflect on the highlights and challenges of the WIL experience for all stakeholders, organize an advisory committee of students and partners to assess the WIL program and critically reflect on their own role as a practitioner in the program.

It is important to identify the appropriate evaluation paradigm and evaluation model in order to guide how the evaluation is conducted, the interpretation of the evaluation findings and the standards by which to evaluate the quality of the program evaluation itself.

Ethical Considerations

Although it is not feasible to provide a full summary of all the literature published on effective practices in program evaluation, the chapter would not be complete without touching upon a few ethical considerations to think about when conducting an evaluation of a WIL program.

KEY TERMINOLOGY

Confidentiality means collecting, analyzing, storing and reporting data in such a way that the data cannot be traced back to the individual who provides them.

Anonymity means that no uniquely identifiable information is attached to the data.

(Mertens & Wilson, 2012, p. 415)

SUCCESS STORY

Conestoga College

Conestoga College offers co-op programs in a variety of fields, including architecture, business administration, community and criminal justice, computer engineering technology, electronic systems engineering, human resources management, public relations and woodworking technology. At Conestoga we have a team of individuals working behind the scenes to ensure that these programs offer a valuable educational experience for students. Program evaluation is an important part of delivering a WIL program. As a former research ethics board chair, I encourage those responsible for data collection for program evaluation to consult their research ethics departments. While program evaluation is outside the jurisdiction of research ethics boards according to the Tri-Council Policy Statement, there are many ethical issues inherent in data collection. Your research ethics board can assist you in identifying these concerns and designing processes that generate useful data in the most ethical way.

Jane McDonald, PhD
Professor, School of Health and Life Sciences and Community Service
Conestoga College

Before initiating an evaluation of the WIL program, it is recommended that you seek consultation with your institution's research ethics board to discuss the ethical considerations of your specific evaluation and potential requirements for ethics approval. Although several authors note that ethical issues are present throughout all stages of the evaluation process, concerns are particularly salient when it comes to issues in sampling (Hatry et al., 2010; Mertens & Wilson, 2012). More specifically, evaluators should be aware of and pay close attention to issues of informed consent, confidentiality and anonymity (Mertens & Wilson, 2012; Rossi et al., 2004; Wholey et al., 2010). Informed consent is often obtained by providing participants with a letter that gives information about the study, what is being asked of the participant, potential risks and/or benefits derived from participation, compensation (if applicable) and the right of the individual to withdraw from the study at any point. Mertens and Wilson (2012) describe that informed consent includes knowing what a person would want to know in advance of giving consent (informed) and explicitly agreeing to participate (consent). Ensuring that informed consent is properly solicited and given is a critical step to maintaining good ethical practice in program evaluation. Special consideration is required for facilitating informed consent with specific groups, such as children, seniors, people with mental illness and/or Indigenous and postcolonial groups (Mertens & Wilson, 2012).

Confidentiality and anonymity are also prudent concerns in the program evaluation process because of the interaction between evaluators and the participants/stakeholders (Mertens & Wilson, 2012). ***Confidentiality*** means "collecting, analyzing, storing, and reporting data in such a way that the data cannot

be traced back to the individual who provides them" (Mertens & Wilson, 2012, p. 415). ***Anonymity*** means "that no uniquely identifiable information is attached to the data; no one, not even the evaluator, can trace the data to the individual" (Mertens & Wilson, 2012, p. 415). Both concepts can be challenging. However, evaluators must practice the (basic) ethical principle of respect (see the table below for further principles in conducting program evaluation) to minimize issues of confidentiality and anonymity (Mertens & Wilson, 2012; Rossi et al., 2004).

In general, there are five principles that can be used to guide evaluators through the WIL program evaluation process.

RECOMMENDATIONS AND GUIDELINES

Ethical Considerations in Program Evaluation

Principle	Explanation
1. Systematic inquiry	Evaluators conduct systematic, data-based inquiries about whatever is being evaluated.
2. Competence	Evaluators provide competent performance to stakeholders.
3. Honesty and integrity	Evaluators ensure the honesty and integrity of the entire evaluation process.
4. Respect for people	Evaluators respect the security, dignity and self-worth of the respondents, program participants, clients and other stakeholders with whom they interact.
5. Responsibility for general and public welfare	Evaluators articulate and take into account the diversity of interests and values that may be related to general and/or public welfare.

Rossi et al. (2004)

Seek consultation with your institution's research ethics board to discuss the ethical considerations of your specific evaluation and potential requirements for ethics approval.

Summary of Evaluating Your WIL Program

6

Despite the variation in terminology used to describe evaluation, it can be defined as judging the worth or merit of something (Scriven, 1967).

The difference between evaluation and program evaluation is that program evaluation "is a profession that uses formal methodologies to provide useful empirical evidence about public entities (such as programs, products, performance) in decision-making contexts that are inherently political and involve multiple often conflicting stakeholders, where resources are seldom sufficient, and where time pressures are salient" (Mertens & Wilson, 2012, p. 248).

Program evaluation, as discussed by Fitzpatrick et al. (2011), is important in developing good programs, helping deliver programs to changing stakeholders in changing contexts and helping find interventions that are successful in achieving goals.

Differences between evaluation and research include the purpose, approach taken, generalizability of results, criteria by which they are judged for adequacy and the preparation of those who work in each.

The evaluation process includes six steps:

1. Develop an evaluation question.
2. Choose an evaluation paradigm.
3. Select an evaluation model.
4. Develop evaluation tools.
5. Collect and analyze the data.
6. Present findings to stakeholders.

There are three common purposes for evaluation:

1. To gain a better understanding of the needs within a particular context (needs assessment evaluation).
2. To identify ways to improve the implementation of the program (implementation evaluation).
3. To report on the degree to which the program achieves its intended outcomes (evaluation of program effectiveness).

Paradigms for evaluating WIL programs include:

- ***Postpositivist:*** The postpositivist paradigm is viewed in the social sciences as a means of improving society by applying scientific methods to explore laws about human behaviour, owing to the belief that there is one reality knowable within a certain degree of probability.
- ***Pragmatic:*** Unlike the postpositivist paradigm, the pragmatic approach rejects the claim that 'truth' can be discovered through scientific methods (Mertens & Wilson, 2012). Instead, evaluators test the effectiveness of an intervention through the collection of results that warrant conclusions about a particular intervention (Morgan, 2007).
- ***Constructivist:*** The constructivist approach to evaluation attempts to understand meaning from the perspectives of the people who have the experiences. The act of evaluation is to make visible these understandings for stakeholders involved in the evaluation process.
- ***Transformative:*** The transformative paradigm focuses primarily on addressing issues of power and inequity in the pursuit of furthering human rights and social justice (Mertens & Wilson, 2012).

Ethical considerations in program evaluation include informed consent, confidentiality and anonymity. The evaluation process includes five steps:

1. systematic inquiry;
2. competence;
3. honesty and integrity;
4. respect for people; and
5. responsibility for general and public welfare.

7

Moving Forward with WIL

Included in this chapter are recommendations to consider in moving forward with WIL programming. Suggestions on how to better connect WIL with higher education curricula are posed. As well, the importance of building collaborative partnerships with workplace organizations is essential to every step of the WIL process, and suggestions are made for enhancing these relations.

Connecting WIL with the Curriculum of the Academic Program

This guide has focused on ways to enhance the educational quality of the structured work experience, including: the planning and development of learning outcomes; assessment and activities for the work experience; ways to facilitate student reflection throughout the WIL experience; the integration of theory; the provision of opportunities for experimenting with new ideas; and approaches to program evaluation.

Cohesive Approach
Work experience is tied to learning outcomes mapped across the academic curriculum; focus is on ongoing learning.

Scaffolding Approach
Multiple work experiences that are increasingly challenging and tied to the same learning outcomes; focus is on deep learning.

Targeted Approach
Work experience is tied to the learning outcomes of a specific course or subject area; focus is on enriched learning.

Diverse Approach
Multiple work experiences in a range of contexts tied to the same learning outcomes; focus is on breadth of learning.

While all of these recommendations are beneficial for enhancing the curriculum of the WIL program, programming could be enhanced even further through the creation of sound pedagogical links horizontally and vertically throughout the academic curricula. This then strengthens the potential for WIL as a pedagogical approach in higher education institutions. Embedding WIL programming within the curriculum of the academic program of which it is a part would augment the breadth and depth of learning outcomes that may guide the structured work experience and would align classroom and work-based pedagogies. Supporting this assertion, Orrell (2011) states, "WIL programs should be integrated into the curriculum so that they have clear educational expectations, and are a vehicle for integrating theory and practice learning" (p. 20).

Adapted from Campbell et al. (2014), four different approaches to the integration of WIL within the curricula of academic programs are proposed, including the cohesive approach, the scaffolding approach, the targeted approach and the diverse approach. Although presented as distinct, in many instances multiple approaches may coincide and complement one another.

- ***Cohesive approach:*** The cohesive approach, also called the whole-of-program approach, refers to the mapping of WIL and/or the learning outcomes of the WIL across various courses in an academic program "in a cohesive, integrated way to ensure ongoing development of knowledge, skills, practice and confidence" (Campbell et al., 2014, p. 21). In this approach, the learning outcomes of the work experience are embedded vertically within the academic program curriculum. The work experience itself may occur alongside or within the student's theory courses, be interjected at multiple points in the curriculum or may be a single culminating work experience that integrates and enhances the learning outcomes progressively developed within the academic program.
- ***Scaffolding approach:*** The scaffolding approach builds multiple work experiences into the academic curriculum and enables deep learning through "progression from simple to increasingly complex and challenging experiences" (Campbell et al., 2014, p. 21). For the scaffolding approach, the focus is on specialization and depth of learning through the provision of increasingly challenging work experiences tied to the same learning outcomes within the academic curriculum. In the

scaffolding approach, the multiple work experiences may occur within the same workplace/context but with increasingly challenging roles and responsibilities, or they may occur across different workplaces/contexts.

- ***Targeted approach:*** The targeted approach refers to the "explicit alignment of work-integrated learning activities with learning outcomes and assessment" (Campbell et al., 2014, p. 21) within a particular course or related to a specific subject matter. This approach allows for greater enhancement of learning outcomes through work experience that is tied to a specific topic. While the course and associated learning outcomes would exist within a broader academic curriculum, in the targeted approach the learning outcomes are not built vertically into the curriculum with the intention of ongoing development. Instead, the targeted approach is an opportunity for enriched learning on a specific topic of interest related to the student's program of study.

- ***Diverse approach:*** The diverse approach "exposes students to a range of industry and community partners and contexts" (Campbell et al., 2014, p. 21). In this approach the focus is on breadth of learning and experience through the provision of diverse work experiences tied to the same learning outcomes within the academic curriculum.

❝ | SUCCESS STORY

George Brown College

At George Brown College, WIL is closely linked to the curriculum of students' program of study and the students' progress within the program. Thus, a first-year student may be focused on gaining familiarity with the workplace culture and be performing basic tasks. A third-year student will be functioning much more independently, using the concepts and skills learned in their program of study. Students apply the theoretical material and practice the skills they have learned in their courses. In many programs, students receive detailed evaluations as well as grades for their WIL, so this is an important part of the students' grade-point average and their progress toward achieving their credential.

Georgia Quartaro, PhD
Dean, Centre for Preparatory and Liberal Studies
George Brown College

? | REFLECTION QUESTIONS

In what ways can the integration of the WIL programming and the curriculum of the academic program be further enhanced at our institution?

- How can the structured work experience be mapped across the curriculum of the academic program to contribute to ongoing student learning and development?
- How could the WIL be structured so that it provides multiple work experiences that are increasingly challenging and tied to the same learning outcomes of the academic program?
- How could the WIL be structured so that it provides multiple work experiences in a range of diverse contexts tied to the same learning outcomes of the academic program?
- How could the WIL be structured so that it is tied to the learning outcomes of a specific course or subject area?

Work-integrated learning programming could be enhanced further through deliberate integration within the curricula of the academic programs.

GIVE IT A TRY!

Sample Curriculum Map

Time Period and Curriculum Options (opt)/Requirements (req)	Learning Outcomes	Specific Content	Assessments	Activities (e.g., readings, assignments, work experience)
Term 1 • Orientation (req) • Course XX (req) • Course XX (req) • Course XX (opt) • Course XX (opt) • Other (opt)				
Term 2 • • •				
Term 3 • • •				
Term 4 • • •				

Building Impactful Partnerships with Workplace Organizations

An important part of advancing a WIL program is being able to build and sustain impactful partnerships with those workplace/community organizations that host students.

Community organizations may include businesses, healthcare facilities, not-for-profit organizations and/or individuals. Work-integrated learning programs require academic institutions to work in partnership with workplaces because both organizations have domain-specific knowledge and expertise that contribute significantly to educational work experiences for students (Choy & Delahaye, 2010). For example, academics may have expert knowledge related to content and theory, whereas the application of this knowledge in distinct workplace contexts may rely heavily on the knowledge and expertise of the workplace supervisor. Therefore, collaborative self-interest, transparency and negotiability must be central in any WIL partnership (Smith & Betts, 2000).

The nature of the relationship between academic institutions and workplace organizations, and the potential for an impactful partnership between them, has been the subject of much research and advocacy in the field of WIL (Reeve & Gallacher, 2005). While historically academic institutions have displayed greater authority over the content, learning activities and outcomes of WIL, the "productive application of these … is premised on the socio-cultural environment and relies heavily on the tacit knowledge of the workers" (Choy & Delahaye, 2010, p. 158). So, in building impactful partnerships with workplace organizations, successful WIL relies on a learning partnership in which the authority over curricula and pedagogy is shared (Choy & Delahaye, 2010).

Building upon this recommendation for enhanced partnership, Seifer (2002) suggests that workplace organizations should be integrally involved in the planning, design, implementation, evaluation and celebration of the WIL curriculum (Seifer, 2002). In this way, community workplaces are not merely "'placement sites' for student learning but are genuine partners" (Seifer, 2002, p. 431). The table on the following page summarizes good principles outlined in Seifer (2002) to help inform the development of workplace partnerships.

Moving forward with WIL, it is recommended that academic institutions and workplace organizations should work in partnership at each stage — student recruitment and admission, curriculum development, student orientation, assessment, evaluation, improvement and recognition (Seifer, 2002) — to ensure a genuine partnership.

★ | PROGRAM SPOTLIGHT

University of Victoria's Indigenous Resource Hub

The University of Victoria's Indigenous Resource Hub (IRH) was discussed in Chapters 2 and 3 to exemplify the importance of centring the needs of students, developing sustainable WIL partnerships and prioritizing program evaluation and development to provide quality WIL.

The University of Victoria Indigenous Co-op team has also utilized the IRH to inform and establish partnerships with potential employers, which is another important step in quality WIL program development. By reviewing the IRH's resources and videos with employers, practitioners can establish employer intentions to hire Indigenous students, determine how to create job descriptions that avoid tokenizing students and understand the students' impact to the workplace. The resources also support employer and practitioner understandings of relationship building, internal program improvements and equitable recruitments strategies, among others. As the Indigenous Co-op team continues to expand their partnerships with employers in the BC area, as well as share the IRH with other institutions, more positions related to Indigenous WIL have begun to open, which is emblematic of the potential and growth of the University of Victoria's initiative. This demonstrates a strong and sustainable partnership that "provides access to education … [and is a] true example of reconciliation in action" (BC Colleges, 2020, p. 4).

RECOMMENDATIONS AND GUIDELINES

Effective Practices for the Development of Workplace Partnerships

Recommendation	Action Steps
1. **Common goals**	Partners have agreed on the mission, values, goals and measurable outcomes for the partnership.
2. **Respect**	The relationship between partners is characterized by mutual trust, respect, genuineness and commitment.
3. **Equality**	The partnership balances the power among partners and enables resources to be shared among partners.
4. **Open communication**	There is clear, open and accessible communication among partners, making it an ongoing priority to listen to each need, develop a common language and validate or clarify the meaning of terms.
5. **Collaboration/agreement**	Roles, norms and processes for the partnership are established with input and agreement from all partners.
6. **Feedback**	There is feedback to, among and from all stakeholders in the partnership, with the goal of continuously improving the partnership and its outcomes.
7. **Improvement**	The partnership builds on identified strengths and assets, but also addresses areas that need improvement.
8. **Recognition**	Partners share credit for the partnership's accomplishments.
9. **Growth over time**	Partnerships take time to develop and evolve over time.

Adapted from Seifer (2002).

Funding for Sustainable Partnerships and Quality WIL

Securing appropriate funding for program sustainability remains an important aspect of quality WIL. Maintaining and developing strong partnerships with institutions and employers in your region may create opportunities for collaboration and funding. Bursaries and/or scholarships may be available at institutions to supplement funding for WIL (Mackaway & Chalkley, 2021). Additionally, leveraging sustainable partnerships by connecting with a broad network of community partners may help supplement placement issues, so students who are not accepted to the program are provided information about related opportunities and supports.

GIVE IT A TRY!

Focus Group Invitation for Prospective Workplace Partners of a WIL Program

Dear [Name],

We are hosting a focus group meeting to discuss the development of a work-integrated learning program [OR the enhancement of our WIL program] at [name of institution]. Your participation in this meeting would be highly valued and appreciated.

Date/Time/Location: TBD

Background Information:

There is growing recognition of the value of learning outside of the classroom to consolidate the theoretical content students learn in lectures with real-world practical experience. Community engagement provides an excellent opportunity for student learning and development, and at the same time, if done right, can be a benefit to the community.

To this end, we are in the early stages of developing a [OR enhancing our] work-integrated learning program for students. The intention of this program will be [is] for students to consolidate their previously learned knowledge and skills gleaned throughout the curriculum and further enhance their learning in a real work context. As we are in the early stages of program development [OR enhancement], we are interested in learning about the perspectives of representatives from workplace and community organizations. We would like to gather your feedback on what you would like future work with students to look like and discuss ways in which we can design [OR enhance] this program so that the student work is truly a benefit to the workplace and greater community.

Some of the questions we are looking forward to discussing include:

- How could students contribute to the work you do in your organization?
- What would you like the students to learn through their experience in your organization?
- What would be the ideal timing of the student work and the total minimum and maximum number of student hours that would be meaningful and helpful to your organization?
- What student projects may be of benefit to your organization (e.g., design and facilitate a program, program evaluation, research/education needs assessment, curriculum development project)?
- What previous or concurrent preparation/training would you like to see the students receive so that they may effectively contribute to your organization?
- What types of accommodations and supports can you provide students?
- What kind preparation/training will you require to ensure equitable hiring and the creation of an inclusive workspace?

Again, your contribution to this important session would be greatly appreciated.

Many thanks,

[Name]

Workplace organizations should be integrally involved in the planning, design, implementation, evaluation and celebration of the WIL curriculum.

★ | **PROGRAM SPOTLIGHT**

Carleton University's David C. Onley Initiative (DCOI) for Employment and Enterprise Development

In Chapter 2 we introduced the DCOI and looked at how they outline concrete steps towards program evaluation and development. As part of the initiative, Carleton University and its partners, the University of Ottawa, Algonquin College and La Cité launched the #AbleTo campaign. The goal of #AbleTo is to encourage employers in the Ottawa region to adopt accessible hiring practices, bust myths around working with students with disabilities and build more inclusive workplaces. This initiative is a direct challenge to traditional WIL programs that have "reproduced the power and privilege imbalances seen in the professional world" (Thakur, 2021, p. 12). WIL experts and practitioners are equipped with the skills to mediate long-lasting partnerships between institutions and employers and align stakeholders on the same goal of providing quality WIL (Thakur, 2021). Moreover, the focus of the campaign demonstrates the value of sustainable WIL partnerships.

The #AbleTo resources include a training toolkit for employers with courses on topics such as inclusive hiring practices and how to provide accommodations. Many successes came from the launch of the #AbleTo campaign. For example, local and small businesses signed a pledge to commit to disability awareness and inclusivity in the workplace. Garnering support from small businesses is an important aspect of the DCOI, given the challenges small businesses and organizations face in insufficient resources and time to support student learning (Jackson et al., 2017). Moreover, this initiative aligns with literature on employer motivations to invest in quality WIL, where higher engagement in WIL helped employers understand the long-term benefits and contributions to the "growth and innovation" of their own business (and the sector more broadly) (Jackson et al., 2017, p. 42). An example of their resources for employers is below.

★ | PROGRAM SPOTLIGHT

#Able To Bust Myths & Find Talent

Sixty-three percent of Ottawa's businesses say that acquiring and retaining talent is a pressing issue. At the same time, many of these businesses overlook job applicants with visible and non-visible disabilities because of common myths. Here are the facts.

Myth

Employees with disabilities are less productive than those without a disability.

Fact

Research shows no difference in job performance between employees with disabilities and those without disabilities.

Myth

Employees with disabilities are harder to dismiss for underperformance than those without disabilities.

Fact

Employees with disabilities fall under the same legislation and provisions as employees without disabilities and are no more difficult to dismiss.

Myth

Candidates with disabilities don't have the skills, training or education required for many jobs.

Fact

Over **fifty-six percent** of adults with a disability have completed post-secondary educational programs.

Myth

Employees with disabilities will be a burden to their coworkers.

Fact

Research shows that inclusive workplaces are better places to work for everyone and are more profitable over the long term.

Myth

Accommodating employees with disabilities is expensive.

Fact

Sixty-three percent of employees with disabilities do not require accommodation. The average cost for those who require accommodation is $500.

Myth

Workers compensation rates will increase if employers hire more persons with disabilities.

Fact

Organizations insurance rates are based exclusively on the comparative risks associated with their accident histories, as opposed to whether or not some of their employees have a disability.

Myth

Employees with disabilities have a high absentee rate.

Fact

Employees with disabilities do not miss any more work than their colleagues without disabilities and tend to have better attendance records than their non-disabled co-workers.

Summary of Effective Practices for Moving Forward with WIL

7

Work-integrated learning programming could be enhanced further through deliberate integration within the curricula of the academic programs (Orrell, 2011).

There are four approaches to integrating WIL into the curriculum of an academic program:

- ***Cohesive approach:*** Work experience is tied to learning outcomes mapped across the academic curriculum; focus is on ongoing learning.
- ***Scaffolding approach:*** Includes multiple work experiences that are increasingly challenging and tied to the same learning outcomes; focus is on deep learning.
- ***Targeted approach:*** Work experience is tied to the learning outcomes of a specific course or subject area; focus is on enriched learning.
- ***Diverse approach:*** Includes multiple work experiences in a range of contexts tied to the same learning outcomes; focus is on breadth of learning.

Work-integrated learning requires postsecondary institutions to work in partnership with workplaces because both have domain-specific knowledge and expertise that contribute significantly to productive WIL experiences (Choy & Delahaye, 2010).

- Academics may hold expertise in content and theoretical knowledge, whereas workplace employers may have expertise in the application of this knowledge in the workplace context.

Securing appropriate funding not only supports and maintains strong partnerships between institutions and employers, but also supports a quality WIL experience for students.

8 Concluding Recommendations

This closing chapter provides a brief overview of the summary guidelines provided in each of the previous chapters. As well, concluding recommendations are shared for enhancing the educational quality of a WIL program.

Enhancing the Educational Quality of the Structured Work Experience

The WIL experience offers numerous benefits to students, workplace supervisors and employers, higher education institutions and industry, government and community partners (Sattler & Peters, 2012).

However, the benefits of WIL are not implicit within the work itself, but rather arise with the integration of theory and practice facilitated through the structured work experience (Billett, 2009; Cooper et al., 2010). Accordingly, it is important to ensure that this integration is achieved most effectively by deliberately structuring the program and grounding it in empirical learning theory.

Kolb's (1984) experiential learning cycle is composed of four major modes of learning: experience, reflection, integrating theory and practice and experimenting with new ideas. Effective practices for facilitating purposeful experience include determining the learning emphasis of the work experience (i.e., learning outcomes, learning assessment and learning plans) and ensuring that it aligns with the specific form (e.g., practicum, internship, co-op) and design (i.e., project implementation–work experience) of the work experience. Furthermore, in order to enhance the educational quality of the student's experience, the learner's physical and social learning environment must be considered, including considerations for learners with diverse needs, managing risk and facilitating mentoring relations.

Effective practices for facilitating ***reflection*** include fostering the autonomy of the learner in the structured work experience and ensuring that students are provided with relevant challenges, consistent and appropriate feedback and opportunities for collaboration with peers (Eyler et al., 1996; Seibert & Daudelin, 1999). Reflection activities should draw upon the students' personal experiences and growth, connect theory and practice, align with the students' learning outcomes, include goal setting and achievement, be sensitive to the diverse contexts in which the WIL may occur, encourage a global and inclusive mindset and allow for a combination of inductive and deductive learning. One model that is useful for guiding reflection is Ash and Clayton's (2009) three-step DEAL Model for Critical Reflection.

Effective practices for facilitating the ***integration of theory and practice*** include assuring bi-directional integration. The integration of theory and practice is a shared responsibility between the student, workplace supervisor and the academic instructor/co-ordinator. It should be built into the students' learning outcomes, learning assessment and learning plans, and should be intentionally facilitated through integrative activities before, during and after the work experience. One way to enhance students' integration of theory and practice is through self-directed learning, including assuring students' self-management, self-monitoring and motivation within their structured work experiences.

Effective practices for facilitating students' ***experimentation with new ideas*** include developing experimentation plans and enabling students to be creative, adaptive and push the boundaries of what is possible in the work environment.

Effectively evaluating a WIL program should follow the evaluation process (i.e., develop an evaluation question, choose an evaluation paradigm, select an evaluation model that reflects principles of equity and inclusion, develop evaluation tools, collect and analyze data and present findings to stakeholders). There are three common purposes for evaluation, including to gain a better understanding of the needs within a particular context (needs assessment evaluation), to identify ways to improve the implementation of the program (implementation evaluation) and to report the degree to which the program achieves its intended outcomes (evaluation of program effectiveness). In all program evaluations, it is recommended that you seek consultation with your institution's research ethics board to discuss the ethical considerations of your specific evaluation.

Finally, in moving forward with WIL, it is recommended that WIL programs be integrated deliberately within the curriculum of the academic program. As well, postsecondary institutions should be working in partnership with workplaces, because both have domain-specific knowledge and expertise that significantly contribute to effective WIL experiences.

Six Main Quality Criteria

Integrating all the recommendations described above, six main criteria are outlined for enhancing the educational quality of the structured work experience. These quality criteria integrate Kolb's four learning modes with program evaluation recommendations and recommendations for moving forward with WIL.

They are:

1. Deliberately structure the WIL program to reflect principles of equity, diversity and inclusion.
2. Empower the learner with autonomy in the structured work experience.
3. Provide students with relevant challenges in the workplace.
4. Consider the learning environment.
5. Work in partnership with students and the workplace organization.
6. Ensure continual assessment of student learning and evaluation of the WIL program.

Six main criteria are outlined for enhancing the educational quality and inclusiveness of the structured work experience.

Practical Considerations

Investing sufficient time and resources

Given the importance of diverse perspectives, dedicating time to engage in internal and external review and consultation with a wide range of stakeholders is beneficial to programming. This includes consulting with WIL practitioners, higher education instructors, students and experts and keeping up with associated literature in EDI. Additionally, dedicating time for professional development and training on EDI practice or co-ordinating specialized positions, such as EDI co-ordinators for student outreach to support student needs, is a good investment in resources (Thakur, 2021).

Gathering sufficient data

Drawing upon extensive research and data can support the messaging of your program and reinforce your investment efforts in student success. This may look like facilitating focus groups or conducting community outreach. In supporting the needs of Indigenous students, engaging with both students and the community by speaking with local elders can help WIL practitioners better understand the needs of Indigenous students and determine the goals of their program. Furthermore, once the data is gathered, it's important to clearly articulate this information to students, including any additional student supports your program provides (such as providing accessibility advisors or special mentoring support) (Thakur, 2021).

Enhancing the Educational Quality of the Structured Work Experience

Recommendation	Action Steps
Deliberately structure the WIL program.	• Ground WIL programming and content in theory. • Ensure that the WIL program reflects principles of equity, diversity and inclusion in all program elements. • Clearly define the learning emphasis (i.e., learning outcomes, learning assessments, learning plans). • Delineate the form of structured work experience. • Intentionally design the structured work experience along the continuum of project implementation to work experience, in alignment with the learning emphasis of the student/program. • Structure reflection activities that integrate theory and practice before, during and after the work experience. • Develop a plan for experimentation. • Embed WIL within the broader curriculum of the academic program.

Enhancing the Educational Quality of the Structured Work Experience (cont'd)

Recommendation	Action Steps
Empower the learner with autonomy in the structured work experience.	• Promote opportunities for authentic experiences. • Encourage independent and critical reflection. • Facilitate students' determination of personal learning goals and achievements. • Encourage students to engage in self-assessment. • Enable students' self-directed learning (i.e., self-management, self-monitoring and motivation with the structured work experience).
Provide students with relevant challenges in the workplace.	• Facilitate appropriate challenges to foster reflective practice. • Promote student creativity and adaptability when faced with challenges in the workplace. • Encourage students to push the boundaries and embrace appropriate challenges in structured work experience.
Consider the learning environment.	• Facilitate inclusive, equitable and culturally safe learning spaces. • Enable mentorship and positive relations in the workplace. • Consider learners' needs and any accommodations/supports they require. • Manage risk.
Work in partnership with students and the workplace organization.	• Advocate the shared responsibility for student learning between the student, workplace supervisors and the academic instructor/co-ordinator. • Promote the shared responsibility of all stakeholders for integrating practice and theory. • Ensure mutual respect and benefit. • Support partnership sustainability with workplace organizations.
Ensure the continual assessment of student learning and evaluation of the WIL program.	• Ensure that students receive continual feedback and assessment in the structured work experience. • Clearly define the purpose of the program evaluation. • Follow the program evaluation steps (i.e., develop an evaluation question, choose an evaluation paradigm, select an evaluation model, develop evaluation tools, collect and analyze data, present findings). • Be cognizant of ethical considerations (e.g., privacy, confidentiality, informed consent).

? | REFLECTION QUESTIONS

After reading through this guide, it is useful to develop specific action steps for further enhancing the educational quality of your WIL program by asking: "What will we ***start*** doing in the WIL program?"; "What will we ***continue*** doing in the WIL program?"; and "What will we ***stop*** doing in the WIL program?" For each question, list a few points using the reflection questions and main summary points included in each chapter. For these action steps, aim to develop goals that are specific, measurable, attainable, relevant and time bound.

In our WIL Program:

We will *start*...

We will *continue*...

We will *stop*...

References

Abbas, P., Holder-Haynes, J., Taylor, D. J., Scott, B. G., Brandt, M. L., & Naik-Mathuria, B. (2015). More than a camera holder: Teaching surgical skills to medical students. *Journal of Surgical Research, 195*, 385–389.

ACE-WIL. (n.d.). Vision, values & mission. https://acewilbc.ca/about-ace-wil/vision-values-mission/

Akella, D. (2010). Learning together: Kolb's experiential theory and its application. *Journal of Management and Organization, 16*(1), 100–112.

Alkin, M. C. (Ed.) (2004). *Evaluation roots: Tracing theorists' views and influences*. Sage.

Annamma, S. A., Connor, D., & Ferri, B. (2013). Dis/ability critical race studies (DisCrit): Theorizing at the intersections of race and dis/ability. *Race, Ethnicity and Education, 16*(1), 1–31. https://doi.org/10.1080/13613324.2012.730511

Anderson, N. A., Caswell, I. J., & Hayes, M. E. (1994). Using peer coaching to provide additional feedback to preservice teachers of reading in an early field experience. In Sturtevant & Linek (Eds.), *Pathways for literacy: Learners teach and teachers learn*. College Reading Association.

Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's taxonomy of educational objectives: Complete edition*. Longman.

Aprile, K. T., & Knight, B. A. (2019). The WIL to learn: Students' perspectives on the impact of work-integrated learning placements on their professional readiness. *Higher Education Research and Development, 39*(5), 869–882. https://doi.org/10.1080/07294360.2019.1695754

Argyris, C., & Schon, D. (1974). *Theory in practice: Increasing professional effectiveness*. Jossey-Bass.

Arney, N. (2022). A relational understanding of learning: Supporting Indigenous work-integrated learning students. *International Journal of Work-Integrated Learning, 23*(2), 153–167.

Arnold, P. (2002). Cooperating teachers' professional growth through supervision of student teachers and participation in a collegial study group. *Teacher Education Quarterly, 29*(2), 123–132.

Aronson, L. (2011). Twelve tips for teaching reflection at all levels of medical education. *Medical Teacher, 33*(3), 200–205.

Ash, S. L., & Clayton, P. H. (2004). The articulated learning: An approach to reflection and assessment. *Innovative Higher Education, 29*(2), 137–154.

Ash, S. L., & Clayton, P. H. (2009). Generating, deepening, and documenting learning: The power of critical reflection in applied learning. *Journal of Applied Learning in Higher Education, 1*, 25–48.

Atkins, S., & Murphy, K. (1993). Reflection: A review of the literature. *Journal of Advanced Nursing, 18*, 1188–1192.

Baker, M. A. (2012). *The effect of Kolb's experiential learning model on successful secondary student intelligence and student motivation*. Oklahoma State University.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.

Banerjee, R., Reitz, J.G., & Oreopoulos, P. (2018). Do large employers treat racial minorities more fairly? An analysis of Canadian field experiment data. *Canadian Public Policy, 44*(1), 1-12.

Barr, R. B., & Tagg, J. (1995). From teaching to learning – A new paradigm for undergraduate education. *Change: The Magazine of Higher Learning, 27*(6), 12–26.

Beard, C., & Wilson, J. P. (2013). *Experiential learning: A handbook for education, training and coaching* (3rd ed.). Kogan Page Publishers.

Beder, J. (2000). The integration of theory into practice: Suggestions for supervisors. *Professional Development: The International Journal of Continuing Social Work Education, 3*(2), 40–48.

Biggs, J. (1987). *Student approaches to learning and studying*. Australian Council for Educational Research.

Biggs, J. B., & Collis, K. F. (1982). *Evaluating the quality of learning: the SOLO taxonomy*. Academic Press.

Biggs, J. B., & Collis, K. F. (1989). Toward a model of school-based curriculum development and assessment using the SOLO taxonomy. *Australian Journal of Education, 33*(2), 151–163.

Billett, S. (1996). Towards a model of workplace learning: The learning curriculum. *Studies in Continuing Education, 18*(1), 43–58.

Billett, S. (2002). Workplace pedagogic practices: Co-participation and learning. *British Journal of Educational Studies, 50*(4), 457–481.

Billett, S, (2009). Realising the educational worth of integrating work experiences in higher education. *Studies in Higher Education, 34*(7), 827–843.

Billett, S. (2011). *Curriculum and pedagogical basis for effectively integrating practice-based experiences*. Australian Learning and Teaching Council.

Billett, S. (2015). The practices of using and integrating practice-based learning in higher education. In M. Kennedy, S. Billett, S. Gherardi & L. Grealish (Eds.), *Practice-based learning in higher education: Jostling cultures* (pp. 15–30). Springer.

Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I Cognitive domain*. David McKay.

Bloom, A. (1987). *The closing of the American mind: How higher education has failed democracy and impoverished the souls of today's students*. Simon and Schuster (Touchstone).

Boenink, A. D., Oderwald, A. K., De Jonge, P., Van Tilburg, W., & Smal, A. J. (2004). Assessing student reflection in medical practice. The development of an observer-rated instrument: Reliability, validity and initial experiences. *Medical Education, 38*(4), 368–377.

Bolton, G. (2001). *Reflective practice: Writing and professional development*. Paul Chapman Publishing.

Bonwell, C. C. & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom. 1991 ASHE-ERIC higher education reports*. ERIC Clearinghouse on Higher Education.

Bosco, A. M. (2014). Institutional risk management of WIL. In S. Ferns (Ed.), *Work integrated learning in the curriculum. Higher Education Research and Development Society of Australia guide* (pp. 41–45). Australia Collaboration Education Network Ltd.

Boud, D., Cohen, R., & Walker, D. (1993). *Using experience for learning*. Open University Press.

Boud, D., Keogh, R., & Walker, D. (1985). *Reflection: Turning learning into experience*. Routledge.

Boud, D. & Symes, C. (2000). Learning for real: Work-based education in universities. In C. Symes & J. McIntyre (Eds.). *Working knowledge: The new vocationalism and higher education*. Open University Press/SRHE.

Boulton-Lewis, G. M. (1995). The SOLO taxonomy as a means of shaping and assessing learning in higher education. *Higher Education Research and Development, 14*(2), 143–154.

Bowen, T. (2011). Examining undergraduate student learning journals for indicators of developing autonomy and professional capacity within a communications, culture and information technology internship course. *Higher Education Research and Development, 30*(4), 463–475.

Boye, T. (2022, January). Reflecting on experience of investigating the accessibility of work-integrated learning using a participatory research methodology. In *ACEN Conference*. ACEN.

Brayboy, B. M. J. (2005). Toward a tribal critical race theory in education. *The Urban Review, 37*(5), 425–446

Breiter, D. (1993). Student achievement of experiential learning objectives. *Hospitality Review, 11*(2), 41–47.

Brew, L., & Kottler, J. A. (2007). *Applied helping skills: Transforming lives*. Sage Publications.

Briel, L. W., & Getzel, E. E. (2005). Internships and field experiences. *Going to college: Expanding opportunities for people with disabilities*, 271–290.

Bringle, R. G., & Hatcher, J. A. (1999). Reflection in service-learning: Making meaning of experience. *Educational Horizons, 7*(4), 179–185.

Brockbank, A. & McGill, I. (1998). Facilitating reflective learning in higher education. Buckingham: Society for Research into Higher Education and Open University Press.

Brockett, R. G., & Hiemstra, R. (1991). *Self-direction in adult learning: Perspectives on theory, research, and practice*. Series on Theory and Practice of Adult Education in North America. Routledge.

Brookfield, S. (1990). *The skillful teacher*. Jossey-Bass.

Broughton, J. C., & Overby, J. O. (1993). Contracts: Clinical training in therapeutic recreation. *Therapeutic Recreation Journal, 27*, 212–218.

Brown, T. J., & Kuratko, D. F. (2015). The impact of design and innovation on the future of education. *Psychology of Aesthetics, Creativity, and the Arts, 9*(2), 147–151.

Bulk, L. Y., Franks, A., Stephens, L., Smith, H., Baljko, M., Dadashi, N., & Epstein, I. (2023). The invisible work of co-creating disability access in work integrated learning. *Advances in Health Sciences Education*. https://doi.org/10.1007/s10459-023-10216-z

Business+Higher Education Roundtable (BHER). (2020). *Taking the pulse of work-integrated learning in Canada*. BHER. https://www.bher.ca/sites/default/files/documents/2020-08/BHER-Academica-report-full.pdf

Butin, D. W. (2005). *Service learning in higher education: Critical issues and directions*. Palgrave Macmillan.

Burnard, P. (1991) *Experiential learning in action*. Aldershot.

Burnard, P. (1995). Nurse educators' perceptions of reflection and reflective practice: A report of a descriptive study. *Journal of Advanced Nursing, 21*(6), 1167–1174.

Burstein, J. (2009). Learning from innovation: Implications of an integrated development project in Chiapas, Mexico. *Development in Practice, 19*(3), 371–380.

Caballero-Garcia, A. & Ruiz, S.S. (2021). Creativity and life satisfaction in Spanish university students. Effects of an emotionally positive and creative program. *Frontiers in Psychology 12*, Article 746154.

Cahill, H. A. (1996). A qualitative analysis of student nurses' experiences of mentorship. *Journal of Advanced Nursing, 24*, 791–799.

Cajete, G. (1994). *Look to the mountain: An ecology of Indigenous education*. Kivaki Press.

Calway, B. A. (2006). What has work-integrated learning learned? – A WIL philosophy. *Industry and Higher Education*. IP Publishing.

Campbell, M., Russell, L., & Higgs, J. (2014). Designing a WIL curriculum. In S. Ferns (Ed.), *Work integrated learning in the curriculum. Higher Education Research and Development Society of Australia guide* (pp. 21–26). Australia Collaboration Education Network Ltd.

Cameron, I. (2006). Engineering science and practice: Alignment and synergies in curriculum innovation. In J. Orrell, *Good practice report: work-integrated learning*. Australian Learning and Teaching Council.

Cameron, C., & Klopper, C. (2015). University lawyers: A study of legal risk, risk management and role in work integrated learning programmes. *Journal of Higher Education Policy and Management, 37*(3), 344–360.

Cameron, M., & Rexe, D. (2022). Community-based access to apprenticeship: An Indigenous work-integrated learning model. *International Journal of Work-Integrated Learning, 23*(2), 203–218.

Candy, P. C. (1991). *Self-direction for life-long learning*. Jossey-Bass.

Candy, P., Harri-Augstein, S., & Thomas, L. (1985). Reflection and the self-organized learner: A model of learning conversations. In D. Boud, R. Keogh & D. Walker (Eds.), *Reflection: Turning experience into learning*. Routledge.

Cantalini-Williams, M. (2015). Teacher candidates' experiences in non-traditional practicum placements: Developing dimensions for innovative work-integrated learning models. In N. Maynes & B. E. Hatt, (Eds.), *The complexity of hiring, supporting, and retaining new teachers across Canada*. Canadian Association for Teacher Education.

CEWIL Canada (n.d.) What is work-integrated learning (WIL)? CEWIL Canada. https://cewilcanada.ca/CEWIL/About-Us/Work-Integrated-Learning.aspx

Chatoor, K. (2023). *Working (and learning) online: Improving remote work-integrated learning experiences for students and employers*. Higher Education Quality Council of Ontario.

Chatoor, K., & Balata, L. (2023). *Student identity and work-integrated Learning (WIL): Exploring student experiences of WIL by demographic*. Higher Education Quality Council of Ontario. https://heqco.ca/pub/student-identity-and-work-integrated-learning-wil-exploring-student-experiences-of-wil-by-demographic/

Chassin, L. (1997). Foreword. In J. Schulenberg, J. L. Magga & K. Hurrelmann (Eds.), *Health risks and developmental transitions during adolescence* (pp. xiii–xvi). Cambridge University Press.

Chin, C., & Brown, D. E. (2000). Learning in science: A comparison of deep and surface approaches. *Journal of Research in Science Teaching, 37*(2), 109–138.

Choy, S., & Delahaye, B. (2010). Partnerships between universities and workplaces: Some challenges for work-integrated learning. *Studies in Continuing Education, 33*(2), 157–172.

Christians, C. G. (2005). Ethics and politics in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed.), (pp. 139–164). Sage.

Christie, C., & Alkin, M. (2005). Objectives-based evaluation. In S. Mathison (Ed.), *Encyclopedia of Evaluation* (pp. 281–286). Sage.

Clayton, P. H., & Ash, S. L. (2004). Shifts in perspective: Capitalizing on the counter- normative nature of service-learning. *Michigan Journal of Community Service Learning, 11*, 59–70.

Clouder, L. (2009). 'Being responsible': Students' perspectives on trust, risk and work-based learning. *Teaching in Higher Education, 14*(3), 289–301.

Cobb, N. H. (1994). Court-recommended guidelines for managing unethical students and working with university lawyers. *Journal of Social Work Education, 30*, 18–31.

Coco, M. (2000). Internships: A try before you buy arrangement. *SAM Advanced Management Journal, 65*(2), 41.

Collingwood, P. (2005). Integrating theory and practice: The three-stage theory framework. *Journal of Practice Teaching, 6*(1), 6–23.

Collins, P. H., & Bilge, S. (2020). *Intersectionality*. (2nd ed.). Polity Press.

Collis, K. F., & Biggs, J. (1989). A school-based approach to setting and evaluating science curriculum objectives: SOLO and school science. *The Australian Science Teachers Journal, 35*(4), 15–25.

Connaughton, J., Edgar, S., & Ferns, S. (2014). Assessing WIL. In S. Ferns (Ed.), *Work integrated learning in the curriculum. Higher Education Research and Development Society of Australia guide* (pp. 27–31). Australia Collaboration Education Network Ltd.

Conrad, D., & Hedin, D. (1990). Learning from service: Experience is the best teacher—or is it? In Jane Kendall and Associates (Eds.), *Combining service and learning* (pp. 87–98). National Society for Internships and Experiential Education.

Cook, S. J., Parker, R. S., & Pettijohn, C. E. (2004). The perceptions of interns: A longitudinal case study. *Journal of Education for Business, 79*(3), 179–181.

Cooper, L., Orrell, J., & Bowden, M. (2010). *Work integrated learning: A guide to effective practice*. Routledge.

Cornell, C. (2003). How mentor teachers perceive their roles and relationships in a field-based teacher-teaching program. *Education, 124*(2), 401–411.

Craig, S. L., Gardiner, T., Eaton, A. D., Pang, N., & Kourgiantakis, T. (2022). Practicing alliance: An experiential model of teaching diversity and inclusion for social work practice and education. *Social Work Education, 41*(5), 801–819. https://doi.org/10.1080/02615479.2021.1892054

Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*(6), 1241–1300.

Cross, P. (1981). *Adults as learners*. Jossey-Bass.

Cukier, W., Campbell, M., & McNamara, L. (2018). *Ensuring equitable access to work-integrated learning in Ontario*. Diversity Institute. https://www.torontomu.ca/diversity/reports/Ensuring_Equitable_Access_to_Work-Integrated_Learning_in_Ontario.pdf

Cuneen, J., & Sidwell, J. (1993). Sport management interns: Selection qualifications. *Journal of Physical Education, Recreation, & Dance, 64*(1), 91–95.

Dean, B. A., & Campbell, M. (2020). Reshaping work-integrated learning in a post-COVID-19 world of work. *International Journal of Work-Integrated Learning, 21*(4), 355–364.

DeGraff, J., & Lawrence, K. A. (2002). *Creativity at work: developing the right practices to make innovation happen*. Jossey-Bass.

Delgado, R., & Stefancic, J. (2000). *Critical race theory: The cutting edge*. Temple University Press.

Denmark, V., & Podsen, I. (2013). *Coaching and mentoring first year student teachers* (2nd ed.). Routledge.

Denzin, N. K., & Lincoln, Y. S (Eds.). (2005). *The Sage handbook of qualitative research* (3rd ed.). Sage.

Dessel, A., & Corvidae, T. (2016). Experiential activities for engaging intersectionality in social justice pedagogy. In *Intersectional Pedagogy* (pp. 214–231). Routledge.

Dever, M. T. (2003). Building the university/public school partnership: A workshop for mentor teachers. *The Teacher Education, 38*(4), 245–255.

Dewey, J. (1910). *How we think*. D.C. Heath and Company

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. D.C. Heath.

Dewey, J. (1938). *Experience and education*. Collier Macmillan.

Diambra, J. F., Cole-Zakrewski, K. G., & Zakreski, R. F. (2004). Key lessons learned during an initial internship: Student perspectives. *Human Service Education, 24*(1), 5–18.

Dickson, T. (2000). *Critiques of David Kolb's theory from an experiential education perspective*. https://www.psicopolis.com/PsiForma/kolbcritic.htm

Divine, R. L., Linrud, J. K., Miller, R. H., & Wilson, J. H. (2007). Required internship programs in marketing: Benefits, challenges, and determinants of fit. *Marketing Education Review, 17*, 45–52.

Dodson, F. (1977). *The you that could b*e. Pocket Books

Donaldson, S. I., Patton, M. Q., Fetterman, D. M., & Scriven M. (2010). The 2009 Claremont debates: The promise and pitfalls of utilization-focused and empowerment evaluation. *Journal of Multi-Disciplinary Evaluation, 6*(13), 15–57.

Dornan, T., Carroll, C., & Parboosingh, J. (2002). An electronic learning portfolio for reflective continuing professional development. *Medical Education, 36*, 767–769.

Drysdale, M. T. B., & McBeath, M. (2018). Motivation, self-efficacy and learning strategies of university students participating in work-integrated learning. *Journal of Education and Work, 31*(5–6), 478–488. https://doi.org/10.1080/13639080.2018.1533240

Duke, L. (2004). Piecing together the jigsaw: How do practice educators define occupational therapy student competence? *British Journal of Occupational Therapy, 67*(5), 201–209.

Dunne, D., & Martin, R. (2006). Design thinking and how it will chance management education: An interview and discussion. *Academy of Management Learning and Education, 5*, 512–523.

Dworkin, J. (2005). Risk taking as developmentally appropriate experimentation for college students. *Journal of Adolescent Research, 20*(2), 219–241.

Dym, C. L., Agogino, A. M., Eris, O., Frey, D. D., & Leifer, L. J. (2005). Engineering design thinking, teaching, and learning. *The Journal of Engineering Education, 94*, 103–120.

Eady, M. J., Hancock, R. L., Morrison, S. L., Beveridge, J. D., & Dean, B. A. (2022). Local Indigenous perspectives and partnerships: Enhancing work-integrated learning. *International Journal of Work-Integrated Learning, 23*(2), 129.

Eames, C. & Coll, R.K. (2010). Cooperative education: Integrating classroom and workplace learning. In S. Billett (Ed.), *Learning Through Practice* (pp.180–196). Springer.

Eccles, J., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon (series ed.) & N. Eisenberg (vol. ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed.). Wiley.

Entwistle, N. & Waterson, S. (1988). Approaches to studying and levels of processing in university students. *British Journal of Educational Psychology, 58*(3), 258–265.

Estes, C. A. (2004). Promoting student-centered learning in experiential education. *Journal of Experiential Education, 27*, 141–160.

Evans, M. & Boucher, A.R. (2015). *Optimizing the Power of Choice: Supporting Student Autonomy to Foster Motivation and Engagement in Learning*. Routledge.

Evans, N. J., Forney, D. S., Guido, F. M., Patton, L. D., & Renn, K. A. (2010). *Student development in college: theory, research, and practice*. John Wiley & Sons.

Eyler, J., & Giles, D. E. (1999). *Where's the learning in service-learning?* Jossey-Bass.

Eyler, J., Giles, D. E., & Schmiede, A. (1996). *A practitioner's guide to reflection in service-learning*. Vanderbilt University.

Eyler, J. (2001). Creating your reflection map. In M. Canada (Ed.), *Service-learning: Practical advice and models* (pp. 35–43). Jossey-Bass New Directions for Higher Education.

Eyler, J. (2002). Reflecting on service: helping nursing students get the most from service learning. *Journal of Nursing Education, 41*(10), 453–456.

Eyler, J. (2009). The power of experiential education. *Liberal Education* (Fall), 24–31.

Fielding, N. G. (2009). Going out on a limb: Postmodernism and multiple method research. *Current Sociology, 57*, 427–447.

Fink, L. D. (2003). *Creating significant learning experiences: An integrated approach to designing college courses*. Jossey-Bass.

Fischer, G., & Scharff, E. (2010). Learning technologies in support of self-directed learning. *Journal of Interactive Media in Education, 1998*(2), Art–4.

Fish, D. (1995). Wider perspectives and advanced techniques. In *Quality Mentoring for Student Teachers: A Principled Approach to Practice*. David Fulton Publishers.

Fitzpatrick, J. L., Sanders, J. R., & Worthen, B. R. (2011). *Program evaluation: Alternative approaches and practical guidelines* (4th ed.). Pearson.

Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). I*mplementation research: A synthesis of the literature* (FMHI Publication No. 231). University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network.

Fleming, J., & Ferkins, L. (2005). Cooperative education in sport: Building our knowledge base. *Journal of Hospitality, Leisure, Sport, and Tourism Education, 4*(1), 41-47.

Fleming, J. & Martin, A. J. (2007). Facilitating reflective learning journeys in sport cooperative education in sport. In N. Becket & P. Kemp (Eds.), *Enhancing Graduate Employability in Business and Management, Leisure, Sport and Tourism* (pp. 98-105). Threshold Press.

Fook, J., & Gardner, F. (2007). *Practicing critical reflection: A resource handbook*. McGraw-Hill Education.

Forrest, C. (2004). Kolb's learning cycle. *Train the trainer*, 12.

Francis, N. J., Salzman, A., Polomsky, D., & Huffman, E. (2007). Accommodations for a student with a physical disability in a professional physical therapist education program. *Journal of Physical Therapy Education, 21*, 60–65.

Freeman, M. (1995). Peer assessment by groups of group work. *Assessment and Evaluation in Higher Education, 20*(3), 289–301.

Freestone, R., Thompson, S., & Williams, P. (2006). Student experiences of work-based learning in planning education. *Journal of Planning Education and Research, 26*, 237–249.

Friedman, M. (1975). Living within our means: Interview of Milton Friedman by Richard Heffner. Richard Heffner's Open Mind, December 7.

Furco, A. (1996). Service-learning: A balanced approach to experiential education. In *Corporation for National Service, expanding boundaries: serving and learning* (pp. 1–6). Cooperative Education Association.

Galvez-Hjornevik, C. (1986). Mentoring among teachers: A review of the literature. *Journal of Teacher Education, 37*(1), 6–11.

Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly, 48*(1), 18–33.

Gatto, L. E., Pearce, H., Antonie, L., & Plesca, M. (2020). Work integrated learning resources for students with disabilities: Are post-secondary institutions in Canada supporting this demographic to be career ready? *Higher Education, Skills and Work-Based Learning, 11*(1), 125–143. https://doi.org/10.1108/heswbl-08-2019-0106

Gatto, L. E., Pearce, H., Antonie, L., & Plesca, M. (2021). Work integrated learning resources for students with disabilities: Are post-secondary institutions in Canada supporting this demographic to be career ready? *Higher Education, Skills and Work-Based Learning, 11*(1), 125–143.

Gault, J., Leach, E., & Duey, M. (2010). Effects of business internships on job marketability: The employers' perspective. *Education + Training, 52*(1), 76–88.

Gault, J., Redington, J., & Schlager, T. (2000). Undergraduate business internships and career success: Are they related? *Journal of Marketing Education, 22*(1), 45–53.

Gawad, N., Zevin, B., Bonrath, E. M., Dedy, N. J., Louridas, M., & Grantcharov, T. P. (2014). Introduction of a comprehensive training curriculum in laparoscopic surgery for medical students: A randomized trial. *Surgery, 156*(3), 698–706.

Gelman, S. R. (1990). The crafting of fieldwork training agreements. *Journal of Social Work Education, 26*, 65–75.

Gemmell, J. C. (2003). *Building a professional learning community in preservice teacher education: Peer coaching and video analysis*. Unpublished dissertation, University of Massachusetts, Amherst.

Giddens, A. (1991). *Modernity and self-identity: Self and society in the late modern age*. Polity.

Giebelhaus, C. R., & Bowman, C. L. (2002). Teaching mentors: Is it worth the effort? *The Journal of Educational Research, 95*(4), 246–254.

Glasgow, R. E., Vogt, T. M., & Boles, S. M. (1999). Evaluating the public health impact of health promotion interventions: The RE-AIM framework. *American Journal of Public Health, 89*(9), 1322–1327.

Goff, L., Potter, M. K., Pierre, E., Carey, T., Gullage, A. et al. (2015). *Learning outcomes assessment: A practitioner's handbook*. Higher Education Quality Council of Ontario.

Goltz, S. M., Hiatapelto A. B., Reinsch, R. W., & Tyrell, S. K. (2008). Teaching teamwork and problem solving concurrently. *Journal of Management Education, 32*(5), 541–562.

Goodale, J. C., Kuratko, D. F., Hornsby, J. S., & Covin, J. G. (2011). Operations management and corporate entrepreneurship: The moderating effect of operations control on the antecedents of corporate entrepreneurial activity in relation to innovation performance. *Journal of Operations Management, 29*, 116–127.

Gray, W. A., & Gray, M. M. (1985). Synthesis of research on mentoring beginning teachers. *Educational Leadership, 43*(3), 37–43.

Greene, J. C. (1988). Communication of results and utilization in participatory program evaluation. *Evaluation and Program Planning, 11*, 341–351.

Grierson, A., Cantalini-Williams, M., Wideman-Johnston, T., & Tedesco, S. (2011). Building scaffolds in the field: The benefits and challenges of teacher candidate peer mentorship. *Brock Education, 20*(2), 85–103.

Grossman, P., Wineburg, S., & Woolworth, S. (2001). Towards a theory of teacher community. *The Teachers College Record, 103*, 942–1012.

Guba, E. G., & Lincoln, Y. S. (1989). *Fourth Generation evaluation*. Sage.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. Sage.

Guba, E. G., & Lincoln, Y. S (Eds.). (2005). *Handbook of qualitative research*. Sage.

Guile, D., & Griffiths, T. (2001). Learning through work experience. *Journal of Education and Work, 14*(1), 113–131.

Ha, T. K. (2008). How IT workers learn in the workplace. *Studies in Continuing Education, 30*(2), 129–143.

Hall, D. T. (2002). *Careers in and out of organizations*. Sage.

Hands, C. (2005). It's who you know and what you know: The process of creating partnerships between schools and communities. *The School Community Journal, 15*(2), 63–84.

Hansen, R. S. (2006). Benefits and problems with student teams: Suggestions for improving team projects. *Journal of Education for Business, 82*, 11–19.

Hart, J. (2001). *Smiling through the cultural catastrophe: Toward the revival of higher education*. Yale University Press.

Harvey, A., Andrewartha, L., Edwards, D., Clarke, J., & Reyes, K. (2017). *Student equity and employability in higher education. Report for the Australian Government Department of Education and Training*. Centre for Higher Education Equity and Diversity Research, La Trobe University.

Hasbrouck, J. E. (1997). Mediated peer coaching for training preservice teachers. *The Journal of Special Education, 31*(2), 251–271.

Hatch, K., & Stenta, D. (2015). Developing effective and measurable outcomes. Presented at the International Experiential Learning Institute, Boston, MA: July 12–15.

Hatry, H. P., Wholey, J. S., & Newcomer, K. E. (2010). Evaluation challenges, issues, and trends. In J. S. Wholey, H. P. Hatry & K. E. Newcomer (Eds.), *Handbook of practical program evaluation* (3rd ed.), (pp. 668–679). Jossey-Bass.

Hatton, N. & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education, 11*(1), 33–49.

Helle, L., Tynjälä, P., & Olkinuora, E. (2006). Project-based learning in post-secondary education: Theory, practice and rubber sling shots. *Higher Education, 51*, 287–314.

Heinrich, R., Molenda, M., Russell, J., & Smaldino, S. (2002). *Instructional media and technologies for learning* (7th ed.). Prentice Hall.

Henning, G. W., Baker, G. R., Jankowski, N. A., Lundquist, A. E., & Montenegro, Erick. (2022). *Reframing Assessment to Center Equity: Theories, Models, and Practices*. Stylus Publishing, LLC.

Hergert, M. (2009). Student perceptions of the value of internships in business education. *American Journal of Business Education, 2*(8), 9–14.

Hewitt-Taylor, J. (2001). Self-directed learning: Views of teachers and students. *Journal of Advanced Nursing, 36*, 496–504.

Higgs, J. (2011). *Standards for professional and practice-based education*. The Education for Practice Institute, Charles Sturt University, Australia.

Holly, M. E. (2014). *Experiential learning and student engagement: Meaningful learner outcomes as articulated by Drexel University Sacramento Ed.D. graduates*. Doctoral dissertation from Drexel University.

Homer (1999). *Odyssey*. Signet Classics.

Hora, M., Chen, Z., & Her, P. (2020). Problematizing college internships: Exploring issues with access, program design and developmental outcomes. *International Journal of Work-Integrated Learning, 21*(3), 235-252.

Horowitz, M. B., Olsen, K. C., & Simpson, Y. (2023). *The ASCOR Wraparound Tool Use and Best Practices Guidebook: Centering Equity, Diversity, and Inclusion in the Development and Revision of Program-level Learning Outcomes*. Toronto Metropolitan University.

Howard, T. C. (2003). Culturally relevant pedagogy: Ingredients for critical teacher reflection. *Theory Into Practice, 42*(3), 195–202.

Hudson, P., Miller, S., Salzberg, C., & Morgan, R. (1994). The role of peer coaching in teacher education programs. *Teacher Education and Special Education, 17*(4), 224–235.

Huling, L. R. (2001). *Teacher Mentoring as Professional Development*. ERIC Digest.

Hynie, M., Jensen, K., Johnny, M., Wedlock, J., & Phipps, D. (2011). Student internships bridge research to real world problems. *Education and Training, 53*(1), 45–56.

Iftikar, J. S., & Museus, S. D. (2018). On the utility of Asian critical (AsianCrit) theory in the field of education. *International Journal of Qualitative Studies in Education, 31*(10), 935–949. https://doi.org/10.1080/09518398.2018.1522008

Itano-Boase, M., Wijesingha, R., Cukier, W., Latif, R., & Hon, H. (2021). Exploring diversity and inclusion in work-integrated learning: An ecological model approach. *International Journal of Work-Integrated Learning, 22*(3), 253–269.

Itin, C. M. (1999). Reasserting the philosophy of experiential education as a vehicle for change in the 21st century. *The Journal of Experiential Education, 22*(2), 91–98.

Jackson, D., Dean, B. A., & Eady, M. (2023). Equity and inclusion in work-integrated learning: Participation and outcomes for diverse student groups. *Educational Review, 0*(0), 1–22. https://doi.org/10.1080/00131911.2023.2182764

Jackson, D., Rowbottom, D., Ferns, S., & McLaren, D. (2017). Employer understanding of work-integrated learning and the challenges of engaging in work placement opportunities. *Studies in Continuing Education, 39*(1), 35–51. https://doi.org/10.1080/0158037X.2016.1228624

Jarvis, P. (1987). Adult Learning in the Social Context. Croom Helm.

Jarvis, P. (1995). *Adult and continuing education* (2nd ed.). Routledge.

Jennings, B., & Callahan, D. (1983). *Social science and the policy-making process. Hastings Center Report, 13*(1), 3–8.

Johnston, N. & Sator, A. (2017). Experiential education in BC post-secondary institutions: Challenges and opportunities. British Columbia Council on Admissions and Transfer.

Jones, J. (2007). Connected learning in co-operative education. *International Journal of Teaching and Learning in Higher Education, 19*(3), 263–273.

Jones, T. (2021). Opening doors to employment for immigrant youth. Global Talent Bridge Partner Blog, August 30. World Education Services.

Jonsson, B., Nilsson, M. S., Pennbrant, S., & Lyckhage, E. D. (2014). From work integrated learning to learning integrated work: A pedagogical model to develop praxis in nursing education. *Journal of Nursing Education and Practice, 4*(11), 91–100.

Joyce, B., & Showers, B. (1980). Improving inservice training: The messages of research. *Educational Leadership, February*, 379–385.

Keating, S. (2006). *Learning in the workplace: a literature review*. Victoria University, Postcompulsory Education Centre.

Keeton, M. T., Sheckley, B. G., & Griggs, J. K. (2002). *Efficiency and effectiveness in higher education*. Kendall/Hunt Publishing Company.

Keeton, M. T., & Tate, P. J. (1978). The boom in experiential learning. Leaning by experience: what, why, how. *New Directions for Experiential Learning, 1*, 1–8.

Kelly, C. (1997). David Kolb, the theory of experiential learning and ESL. *The Internet TESL Journal, 3*(9), 1–5.

Kember, D. (2001). *Reflective teaching and learning in the health professions*. Blackwell Science.

Kember, D., McKay, J., Sinclair, K., & Wong, F. K. Y. (2008). A four-category scheme for coding and assessing the level of reflection in written work. *Assessment & Evaluation in Higher Education, 33*(4), 369–379.

Kemp, J., Morrison, G., & Ross, S. (1996). *Designing effective instruction*. Prentice-Hall.

Kennedy, M., Billett, S., Gherardi, S., & Grealish, L. (2015). Practice-based learning in higher education: Jostling cultures. In M. Kennedy, S. Billett, S. Gherardi & L. Grealish (Eds.), *Practice-based Learning in Higher Education: Jostling Cultures* (pp. 1–14). Springer.

Kent, S. I. (2001). Supervision of student teachers: Practices of cooperating teachers prepared in a clinical supervision course. *Journal of Curriculum and Supervision, 16*(3), 228–244.

Khalifa, M. (2018). *Culturally responsive school leadership*. Harvard University Press.

Kim, H. S. (1999). Critical reflective inquiry for knowledge development in nursing practice. *Journal of Advanced Nursing, 29*(5), 1205–1212.

King, P. M., & Kitchener, K. S. (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. Jossey-Bass.

Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). *Evaluating training programs: The four levels* (3rd ed.). Berrett-Koehler Publishers, Inc.

Kirkpatrick, D. L., & Kirkpatrick, J. D. (2007). *Implementing the four levels: A practical guide for effective evaluation of training programs*. Berrett-Koehler Publishers, Inc.

Kirschner, D., & Whitson, J. A. (1997). *Situated cognition: Social, semiotic, and psychological perspectives*. Lawrence Erlbaum Associates.

Knemeyer, A. M., & Murphy, P. R. (2002). Logistics internships: Employer and student perspectives. *International Journal of Physical Distribution & Logistics Management, 32*(2), 135–152.

Knight, P., & Yorke, M. (2004). *Learning, curriculum and employability in higher education*. Routledge Falmer.

Knouse, S. B., & Fontenot, G. (2008). Benefits of the business college internship: A research review. *Journal of Employment Counseling, 45*(2), 61–66.

Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. Association Press.

Koerin, B., & Miller, J. (1995). Gatekeeping policies: Terminating students for non-academic reasons. *Journal of Social Work Education, 31*, 247–260.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.

Kolb, D. A. (1998). Experiential learning: From discourse model to conversation. *Lifelong Learning in Europe, 3*, 148–153.

Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2001). Experiential learning theory: Previous research and new directions. *Perspectives on Thinking, Learning, and Cognitive Styles, 1*, 227–247.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*(2), 193–212.

Koskela, R., & Ganser, T. (1998). The cooperating teacher role and career development. *Education, 119*(1), 106–114; 125.

Krause, S. (1997). *The university supervisor: Constructing meaning about a restructured teacher education program relative to the supervision of literacy methods students*. Paper presented at the Annual Meeting of the National Reading Conference, Scottsdale, AZ.

Kuratko, D. F., Ireland, R. D., & Hornsby, J. S. (2001). Improving firm performance through entrepreneurial actions: Acordia's corporate entrepreneurship strategy. *The Academy of Management Executive, 15*, 60–71.

Kurtts, S., & Levin, B. (2000). Using peer coaching with preservice teachers to develop reflective practice and peer support. *Teaching Education, 11*(3), 297–310.

Ladson-Billings, G. (1995). But that's just good teaching! The case for culturally relevant pedagogy. *Theory Into Practice, 34*(3), 159–165. https://doi.org/10.1080/00405849509543675

Ladson-Billings, G. & Tate, W. F. (1995). Toward a critical race theory of education. *Teachers College Record, 97*(1). 47–68.

Langer, E. J. (1989). *Mindfulness*. Addison-Wesley Publishing.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.

Levin, H. M. (2015). The importance of adaptability for the 21st century. *Society, 52*(2), 136–141.

Lewin, K. (1951). *Field theory in social science: Selected theoretical papers*. Harper & Row.

Li, S. T., & Burke, A. E. (2010). Individualized learning plans: Basics and beyond. *Academic Pediatrics, 10*(5), 289–292.

Li, S. T., Paterniti, D. A., & West, D. C. (2010). Successful self-directed lifelong learning in medicine: A conceptual model derived from qualitative analysis of a national survey of pediatric residents. *Academic Medicine, 85*(7), 1229–1236.

Lightfoot, C. (1997). *The culture of adolescent risk-taking*. Guilford.

Lincoln, Y. S. (2010). "What a long, strange trip it's been": Twenty-five years of qualitative and new paradigm research. *Qualitative Inquiry, 16*(1), 3–9.

Linford, D., & Marshall, J. (2014) Mentorship from the student perspective. *The Practicing Midwife, 17*(11), 33–36.

Little, J. W. (2002). Locating learning in teachers' communities of practice: Opening up problems of analysis in records of everyday work. *Teaching and Teacher Education, 18*, 917–946.

Lorello, G. R., Cook, D. A., Johnson, R. L., & Brydges, R. (2014). Simulation-based training in anaesthesiology: A systematic review and meta-analysis. *British Journal of Anaesthesia, 112*(2), 231–245.

Loughran, J. J. (1996). *Developing reflective practice: Learning about teaching and learning through modeling*. Falmer Press.

Lloyd, N., Paull, M., Clerke, T., & Male, S. (2019). *Access, quality and wellbeing in engineering work integrated learning placements: Implications for equity and diversity*. Report submitted to the National Centre for Student Equity in Higher Education (NCSEHE), Curtin University, Perth.

Lu, H. L. (2007). *Mentor teachers, program supervisors, and peer coaching in the student teaching experience: A phenomenological study of the experiences of mentor teachers, program supervisors, and interns*. [Doctoral dissertation, University of Massachusetts Amherst]. ProQuest Dissertations Publishing.

Lundquist, A., & Henning, G. W. (2020). From avoiding bias to social justice: A continuum of assessment practices to advance diversity, equity, and inclusion. In A. Spicer-Runnels & T. Simpson (Eds.). Developing and Intercultural Responsive Leadership Style for Faculty and Administrators (pp. 47–61). https://doi.org/10.4018/978-1-7998-4108-1.ch004

Lunyk-Child, O. L., Crooks, D., Ellis, P. J., Ofosu, C., O'Mara, L., & Rideout, E. (2001) Self-directed learning: Faculty and student perceptions. *Journal of Nursing Education, 40*, 116–123.

Mackaway, J., & Chalkley, T. (2021). Student access and equity in work-integrated learning: A work in progress. In S. J. Ferns, A. D. Rowe, & K. E. Zegwaard (Eds.) *Advances in research, theory and practice in work-integrated learning: Enhancing employability for a sustainable future* (pp. 227–238). Routledge.

Maher, A. (2004). Learning outcomes in higher education: Implications for curriculum design and student learning. *Journal of Hospitality, Leisure, Sport and Tourism Education, 3*(2), 46–54.

Mallozzi, R., & Drewery, D. (2019). Creating inclusive co-op workplaces: Insights from LGBTQ+ Students. *International Journal of Work-Integrated Learning, 20*(3), 219–228.

Mamede, S., & Schmidt, H. (2005). Correlates of reflective practice in medicine. *Advances in Health Sciences Education, Theory and Practice, 10*, 327–337.

Mamede, S., & Schmidt, H. (2004). The structure of reflective practice in medicine. *Medical Education, 38*, 1302–1306.

Mann, K., Gordon, J., & MacLeod, A. (2009). Reflection and reflective practice in health professions education: A systematic review. *Advances in Health Sciences Education, 14*(4), 595–621.

Mark, M. M., Henry, G. T., & Julnes. G. (2000). *Evaluation: An integrative framework for understanding, guiding, and improving policies and programs*. Jossey-Bass.

Martin, A., & Hughes, H. (2009). *How to make the most of work integrated learning: A guide for students, lecturers and supervisors*. Massey University Press.

Martin, A., Fleming, J., Ferkins, L., Wiersma, C. & Coll, R. K. (2010). Facilitating and integrating learning within sport studies cooperative education: Exploring the pedagogies employed by students, academics, and workplace supervisors. *Journal of Hospitality, Leisure, Sport and Tourism Education, 9*(1), 24–38.

Marton, F. (1983). Beyond individual differences. *Educational Psychology, 3*, 289–303.

Mathison, S. (2005). *Encyclopedia of Evaluation*. Sage.

Matsuo, M. & Nagata, M. (2020). A revised model of experiential learning with a debriefing checklist. *International Journal of Training and Development, 24*(2), 144–153.

McKeachie, W. J. (1994). *Teaching tips*. Heath and Company.

McRae, N., & Ramji, K. (2017). Intercultural competency development curriculum: A strategy for internationalizing work-integrated learning for the 21st century global village. In *International perspectives on education and society* (pp. 129–143). https://doi.org/10.1108/s1479-367920170000032008

McRae, N., Ramji, K., & Ivković, S. S. (2023). Addressing complex global challenges: Developing cultural intelligence in work-integrated learning. In K. E. Zegwaard & T. J. Pretti (Eds.). *The Routledge International Handbook of Work-Integrated Learning* (pp. 563–577). Routledge.

Melis-De Lamper, N. & Benner, A. (2024). Accessible work-integrated learning experiences: An analysis of the University of Victoria's CanWork program. *International Journal of Work-Integrated Learning, 25*(1), 155–166.

Merriam, S. (1983). Mentors and proteges: A critical review of the literature. *Adult Education Quarterly, 33*(3), 161–173.

Mertens, D. M. (2009). *Transformative research and evaluation*. Guilford Press.

Mertens, D. M. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (3rd ed.). Sage.

Mertens, D. M., & Wilson, A. T. (2012). *Program evaluation theory and practice: A comprehensive guide*. Guilford Press.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass.

Mezirow, J. (1997). Transformative learning: Theory to practice. In P. Cranton (Ed.), *Transformative learning in action: Insights from practice. New Directions for Adult and Continuing Education No. 74*. Jossey-Bass.

Middleton, H. (2002). Chapter 5: Complex problem solving in a workplace setting. *International Journal of Educational Research, 37*, 67–84.

Miettinen, R. (2000). The concept of experiential learning and John Dewey's theory of reflective thought and action. *International Journal of Lifelong Education, 19*(1), 54–72.

Miflin, B. M., Campbell, C. B., & Price, D. A. (2000). A conceptual framework to guide the development of self-directed lifelong learning in problem-based medical curricula. *Medical Education, 34*, 299–306.

Miller, E. E. (1990, September). The assessment of clinical skills/competence/performance. *Academic Medicine, 65*, 63–67.

Ministry of Advanced Education and Skills Development. (2017, September). *MAESD's Guiding Principles for Experiential Learning*. Carleton University. https://carleton.ca/provost/wp-content/uploads/A04-EL-Guiding-Priciples-FINAL-EN.pdf

Montrose, L. (2002). International study and experiential learning: The academic context. *Frontiers: The Interdisciplinary Journal of Study Abroad, 8*(2), 1–15.

Moore, D. T. (2010). Forms and issues in experiential learning. *New Directions for Teaching and Learning, 124*, 3–13.

Morgan, D.L. (2007). Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research, 1*(1), 48–76.

Morris, T. H. (2020). Experiential learning – A systematic review and revision of Kolb's model. *Interactive Learning Environments, 28*(8), 1064–1077.

Mumford, M. D., Hunter, S. T., & Bedell-Avers, K. E. (2008). Constraints on innovation: Planning as a context for creativity. In *Multi-level Issues in Creativity and Innovation* (Vol. 7), (pp. 191–200). Emerald Group Publishing Limited.

Munson, C. (1993). *Clinical social work supervision* (2nd ed.). Haworth Press.

Murphy, G. A., & Alexander, B. A. (2008). Professional development for professionals: Beyond sufficiency learning. *Australian Journal of Adult Learning, 48*, 424–444.

Myers-Lipton, S. J. (1998). Effect of a comprehensive service-learning program on college students' civic responsibility. *Teaching Sociology, 26*(4), 243–258.

Neighborhood Arts Network. (n.d.). About ArtWorksTO. https://neighbourhoodartsnetwork.org/programs/artworksto/about

Nielsen, J., Livernoche, R., & Ramji, K. (2022). The Indigenous work-integrated learning resource hub: A needs-based approach to addressing barriers and opportunities for Indigenous students. *International Journal of Work-Integrated Learning, 23*(2), 139–152.

Nolan, A. (2008). Encouraging the reflection process in undergraduate teachers using guided reflection. *Australian Journal of Early Childhood, 33*(1), 31–36.

O'Connell, D. J., McNeely, E., & Hall, D. T. (2008). Unpacking personal adaptability at work. *Journal of Leadership and Organizational Studies, 14*(3), 248–259.

Offir, B., Lev, Y., & Bezalel, R. (2008). Surface and deep learning processes in distance education: Synchronous versus asynchronous systems. *Computers & Education, 51*(3), 1172–1183.

Orrell, J. (2011). *Good practices report: Work-integrated learning*. Australian Learning and Teaching Council.

Orrell, J., Bowden, M., & Cooper, L. (2010). *Work integrated learning: A guide to effective practice*. Routledge.

Osgood, M., & Richter, D. M. (2006). *Designing learning that lasts: An evidence-based approach to curriculum development*. Teacher & Education Development, University of New Mexico, School of Medicine.

O'Shea, E. (2002). Self-directed learning in nurse education: A review of the literature. *Journal of Advanced Nursing, 43*(1), 62–70.

O'Shea, A. (2014). Models of WIL. In S. Ferns (Ed.), *Work integrated learning in the curriculum. Higher Education Research and Development Society of Australia guide* (pp. 7–14). Australia Collaboration Education Network Ltd.

Paris, A. J., & Adams, H. G. (1994). *Your internship is as good as you make it: A practical guide to student internships*. National Consortium for Graduate Degrees for Minorities in Engineering, Inc.

Patterson, C., Crooks, D., & Lunyk-Child, O. (2002). A new perspective on competencies for self-directed learning. *Journal of Nursing Education, 41*(1), 25–31.

Patton, M. Q. (1997). *Utilization-focused evaluation: The new century text* (3rd ed.). Sage.

Patton, M. Q. (2000a). Overview: Language matters. In R. K. Hopson (Ed.), *How and why language matters in evaluation*. Jossey-Bass.

Patton, M. Q. (2000b). Utilization-focused evaluation. In D. L. Stufflebeam, G. F. Madaus & T. Kellaghan (Eds.), *Evaluation models: Viewpoints on educational and human services evaluation* (2nd ed.), (pp. 425–438). Kluwer.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Sage.

Patton, M. Q. (2008). *Utilization-focused evaluation* (4th ed.). Sage.

Paul, R. P., & Elder, L. (2001). *The miniature guide to critical thinking*. The Foundation for Critical Thinking.

Pearlman, K., & Barney, M. F. (2000). Selection for a changing workplace. In J. F. Kehoe (Ed.), *Managing selection in changing organizations: Human resource strategies* (pp. 3–72). Jossey-Bass.

Pearson, D., & Heywood, P. (2004). Portfolio use in general practice vocational training: A survey of GP registrars. *Medical Education, 38*, 87–95.

Penfold, S. (2007). Helping people learn. In S. West, T. Clark, & M. Jasper (Eds.), *Enabling learning in nursing and midwifery practice: A guide for mentors* (pp. 45-63). John Wiley & Sons Ltd.

Piaget, J. (1978). What is psychology? *American Psychologist, 33*(7), 648–652.

Pierce, T., & Miller, S. P. (1994). Using peer coaching in preservice practice. *Teacher Education and Special Education, 17*(4), 215–223.

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology, 95*(4), 667–686.

Pintrich, P. R., & Schunk, D. H. (2002). *Motivation in education: Theory, research, and applications*. Prentice Hall.

Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology, 52*(2), 126–136.

Pulakos, E. D., Arad, S., Donovan, M. A., & Plamondon, K. E. (2000). Adaptability in the workplace: Development of a taxonomy of adaptive performance. *Journal of Applied Psychology, 85*(4), 612–624.

Race, P. (1990). *The open learning handbook*. Kogan Page.

Raelin, J. A. (2010). Work-based learning: Valuing practice as an educational event. *New Directions for Teaching and Learning, 124*, 39–46.

Ramji, K., Ivković, S. S., Miller, N., Karim-Haji, F., & Trompetter, S. (2023). The practice of international work-integrated learning. In *The Routledge International Handbook of Work-Integrated Learning* (pp. 289–305). https://doi.org/10.4324/9781003156420

Ramji, K., Kines, L., Hancock, R. L., & McRae, N. (2021). Developing and delivering a culturally relevant international work-integrated learning exchange for Indigenous students. *International Journal of Work-Integrated Learning, 22*(3), 307–321.

Ravitch, D. (2007). *EdSpeak: A glossary of education terms, phrases, buzzwords, and jargon*. Association for Supervision & Curriculum Development.

Reddan, G. (2011). *Assessing a work-integrated learning course in Exercise Science: Griffith University discussion paper.*

Reeve, F., & Gallacher, J. (2005). Employer-university 'partnerships': A key problem for work-based learning programmes? *Journal of Education and Work, 18*(2), 219–233.

Roberts, J. W. (2012). *Beyond learning by doing: Theoretical currents in experiential education*. Routledge.

Rogers, R. R. (2001). Reflection in higher education: A concept analysis. *Innovative Higher Education, 26*(1), 37–57.

Ross, L. E., & Elechi, O. O. (2002). Student attitudes towards internship experiences: From theory to practice. *Journal of Criminal Justice Education, 13*(2), 297–312.

Rosser, J. C., Lynch, P. J., Cuddihy, L., Gentile, D. A., Klonsky, J., & Merrell, R. (2007). The impact of video games on training surgeons in the 21st century. *Archives of Surgery, 142*(2), 181–186.

Rossi, P. H., Lipsey, M. W., & Freeman H. E. (2004). *Evaluation: A systematic approach* (7th ed.). Sage.

Rothman, M. (2007). Lessons learned: Advice to employers from interns. *Journal of Education for Business, 82*, 140–144.

Rothstein, L. (2007). Millennials and disability law: Revisiting southeastern community college v. Davis. *Journal of College and University Law, 34*, 169–202.

Rowe, A., Mackaway, J., & Winchester-Seeto, T. (2012). 'But I thought you were doing that' – Clarifying the role of the host supervisor in experience-based learning. *Asia-Pacific Journal of Cooperative Education, 12*(2), 115–134.

Royal College of Physicians and Surgeons of Canada (2010). *Maintenance of certification program guide*. Royal College of Physicians and Surgeons of Canada.

Rschick, M., Maypole, D. E., & Day, P. A. (1998). Improving field education through Kolb learning theory. *Journal of Social Work Education, 34*(1), 31–42.

Ruhanen, L. (2005). Bridging the divide between theory and practice: Experiential learning approaches for tourism and hospitality management education. *Journal of Teaching in Travel & Tourism, 5*(4), 33–51.

Ruiz, J. R. (2004a). Airline flight operations internships: perspectives. *Journal of Air Transportation, 9*(1), 86–99.

Ruiz, J. R. (2004b). The most valuable aspects of an airline flight operations internship: The perceptions of former interns. *Journal of Aviation/Aerospace Education and Research, 13*(3), 43–53.

Saba, T., & Cukier, W. (2022). *Bridging the skills gap within small and medium-sized enterprises in Quebec: An analytical and empirical analysis*. The Diversity Institute.

Sanchez, J. I., & Levine, E. L. (2001). Analysis of work in the 20th and 21st centuries. In N. Anderson, D. S. Ones, H. K. Sinangil & C. Viswesvaran (Eds.), *Handbook of industrial, work and organizational psychology* (vol. 1), (pp. 71–88). Sage.

Sandars, J., Murray, C., & Pellow, A. (2008). Twelve tips for using digital storytelling to promote reflective learning by medical students. *Medical Teacher, 30*(8), 774–777.

Sanders, M. G. (2001). The role of "community" in comprehensive school, family, and community programs. *The Elementary School Journal, 102*(1), 19–34.

Sattler, P. (2011). *Work-Integrated learning in Ontario's postsecondary sector*. Higher Education Quality Council of Ontario.

Sattler, P., & Peters, J. (2012). *Work-integrated learning and postsecondary graduates: The perspective of Ontario employers*. Higher Education Quality Council of Ontario.

Schmutte, J. (1986). Accounting internships: the state of the art. *Journal of Accounting Education, 4*(1), 227–236.

Schneider, R. C., & Stier, W. F. (2006). Sport management field experiences as experiential learning: Ensuring beneficial outcomes and preventing exploitation. *The Sport Management and Related Topics Journal, 2*(2), 36–39.

Schon, D. (1983). *The reflective practitioner*. Jossey-Bass.

Schuetze, H. G., & Sweet, R. (2003). Integrating school and workplace learning in Canada: An introduction to alternation education concepts and issues. In *Integrating school and workplace learning in Canada: principles and practices of alternation education and training* (pp. 3–21). McGill-Queen's University Press.

Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed.), (pp. 189–213). Sage.

Schwarz McCotter, S. (2001). Collaborative groups as professional development. *Teaching and Teacher Education, 17*, 685–704.

Schwiebert, L. P., Crandall, S. J., & Brown, D. S. (1991). Incorporating goal setting into a third-year family medicine clerkship: A pilot project. *Teaching and Learning in Medicine: An International Journal, 3*(4), 239–244.

Scriven, M. (1967). The methodology of evaluation. In R. W. Tyler, R. Gagne & M. Scriven (Eds.), *Perspectives of curriculum evaluation* (pp. 39–83). Rand McNally.

Scriven, M. (1991). *Evaluation thesaurus* (4th ed.). Sage.

Seibert, K. W., & Daudelin, M. W. (1999). *The role of reflection in managerial learning: Theory, research, and practice*. Quorum Books.

Seifer, S. (2002). From placement site to partnership: The promise of service-learning. *Journal of Nursing Education, 41*(10), 431–432.

Severance, T. A., & Starr, P. J. (2011). Beyond the classroom: Internships and students with special needs. *Teaching Sociology, 39*(2), 200–207.

Shapira, Z. (1995). *Risk taking: A managerial perspective*. Russel Sage Foundation.

Sherman, W. H. (2005). Preserving the status quo or renegotiating leadership: Women's experiences with a district-based aspiring leaders program. *Educational Administration Quarterly, 41*(5), 707–740.

Sides, C. H., & Mrvica, A. (2007). *Internships: theory and practice*. Baywood Publishing.

Skinner, E., Zimmer-Gembeck, M., & Connell, J. P. (1998). Individual differences and the development of perceived control. *Monographs of the Society for Research in Child Development, 63*(2-3), 1–231.

Smigiel, H., Macleod, C., & Stephenson, H. (2015). Managing competing demands in the delivery of work integrated learning: An institutional case study. In *Practice-based Learning in Higher Education* (pp. 159–172). Springer.

Smith, C. (2005). Understanding trust and confidence: Two paradigms and their significance for health and social care. *Journal of Applied Philosophy, 22*(3), 299–316.

Smith, C., Ferns, S., & Russell, L. (2014). *The impact of work integrated learning on student work-readiness*. Final reports, Curtin University f Technology, LSN Teaching Development Unit.

Smith, F. (2000). Attitudes, learning styles and the workplace. *Journal of Vocational Education and Training, 52*(2), 281–293.

Smith, R., & Betts, M. (2000). Learning as partners: Realising the potential of work-based learning. *Journal of Vocational Education and Training, 52*(4), 589–604.

Solorzano, D. G., & Bernal, D. D. (2001). Examining Transformational Resistance Through a Critical Race and Latcrit Theory Framework: Chicana and Chicano Students in an Urban Context. *Urban Education (Beverly Hills, Calif.), 36*(3), 308–342. https://doi.org/10.1177/0042085901363002

Sparks-Langer, G. M., & Colton, A. B. (1991). Synthesis of research on teachers' reflective thinking. *Educational Leadership, 48*(6), 37–44.

Sparrow, S. & Pearson, A. (1985). Teach yourself goal setting. *Nursing Times, 81*(42), 24–25.

Spencer, H. (1851). *Social statics: Or, the conditions essential to happiness specified, and the first of them developed*. John Chapman.

Spiro, R. J., Feltovich, P. J., & Coulson, R. L. (1996). `Two epistemic world-views: Prefigurative schemas and learning in complex domains. *Applied Cognitive Psychology, 10*(7), 51–61.

Stagnitti, K., Schoo, A., & Welch, D. (2010). *Clinical and fieldwork placement*. Oxford University Press.

Stake, R. E. (1991). Retrospective on "The countenance of educational evaluation." In M. W. McLaughlin & D. C. Phillips (Eds.), *Evaluation and Education: At Quarter Century. Ninetieth Yearbook of the National Society for the Study of Education, Part II*. University of Chicago Press.

Statistics Canada. (2018, November 28). *A demographic, employment and income profile of Canadians with disabilities aged 15 years and over, 2017*. Statistics Canada.

Sternberg, R. J., & Lubart, T. I. (1999). The concept of creativity: Prospects and paradigms. In R. J. Sternberg (Ed.), *Handbook of Creativity*. Cambridge University Press.

Stirling, A. E. (2013). Applying Kolb's theory of experiential learning to coach education. *Journal of Coaching Education, 6*(2), 34–51.

Stirling, A., Kerr, G., Banwell, J., MacPherson, E., Bandealy, A., & Battaglia, A. (2014). *What is an internship? Inventory and analysis of "internship" opportunities available to postsecondary students in Ontario*. Higher Education Quality Council of Ontario.

Strawson, G. (2004). Against narrativity. *Ratio, 17*, 428–452.

Stufflebeam, D. L. (1982). A review of progress in educational evaluation. *American Journal of Evaluation, 3*, 15–27.

Stufflebeam, D. L. (2007). *CIPP evaluation model checklist*. https://www.wmich.edu/sites/default/files/attachments/u350/2014/cippchecklist_mar07.pdf

Stufflebeam, D. L., & Coryn, C. L. S. (2014). *Evaluation theory, models, and applications* (2nd ed.). Jossey-Bass.

Stufflebeam, D. L., Foley, W. J., Gephart, W. J., Guba, E. G., Hammond, R. L., Merriman, H. O., & Provus, M. (1971). *Educational evaluation and decision making*. Peacock.

Subramaniam, N., & Freudenberg, B. (2007). Preparing accounting student for success in the professional environment: Enhancing self-efficacy through a work integrated learning programme. *Asia-Pacific Journal of Cooperative Education, 8*(1), 77–92.

Sullivan, W. M., & Rosin, M. S. (2008). *A new agenda for higher education: Shaping a life of the mind for practice*. Jossey-Bass.

Tan, B. K. (2014). Good practice for international WIL. In S. Ferns (Ed.), *Work integrated learning in the curriculum. Higher Education Research and Development Society of Australia guide* (pp. 69–75). Australia Collaboration Education Network Ltd.

Tashakkori, A., & Teddlie, C. (1998). Mixed methodology: Combining qualitative and quantitative approaches. In *Applied Social Research Methods* (vol. 46), (pp. 3–50). Sage.

Tate, W. F. (1997). Chapter 4: Critical race theory and education: History, theory, and implications. *Review of Research in Education, 22*(1), 195–247. https://doi.org/10.3102/0091732X022001195

Tennant, M. (1997). Psychology and Adult Learning, 2nd Edition. Routledge.

Tennant, M. (1999). Is learning transferable? In D. Boud & J. Garrick (Eds.),

Understanding learning at work. Routledge.

Thakur, A. (2021). *WIL EDI Resource Hub: Identifying Barriers and Strategies for Equitable Ways Forward in WIL*. https://acewilbc.ca/resource-library/final-report/

Thompson, D. (1992). Beyond motivation: Nurses' participation and persistence in baccalaureate nursing programs. *Adult Education Quarterly, 42*, 94–105.

Thompson, S. & Thompson N. (2008). *The critically reflective practitioner*. Palgrave Macmillan.

Tschannen-Moran, M. (2004). *Trust matters: Leadership for successful schools*. Jossey-Bass.

Tunny, R., Bradbury, O., Lloyd, S., Needham, J., & Winslade, M. (2022). The future of WIL: Diversity, equity and inclusion. *Work Integrated Learning in Practice, 1*(2), 1–14.

Turns, J., Sattler, B., Yasuhara, K., Borgford-Parnell, J. L., & Atman, C. J. (2014). *Integrating reflection into engineering education*. 121st ASEE Annual Conference & Exposition.

Vacha-Haase, T., Davenport, D. S., & Kerewsky, S. D. (2004). Problematic students: Gatekeeping practices of academic professional psychology programs. *Professional Psychology: Research and Practice, 35*, 115–122.

Van der Vleuten, C., & Verhoeven, B. (2013). In-training assessment developments in postgraduate education in Europe. *ANZ Journal of Surgery, 83*(6), 454–459.

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practices and student learning. *Teaching and Teacher Education, 24*(1), 80–91.

Vince, R. (1998). Behind and beyond Kolb's learning cycle. *Journal of Management Education, 22*(3), 304–319.

Volpe-White, J. (2015). Reflection handbook. *The Center for Leadership & Civic Education*, Florida State University.

Von Treuer, K., Sturre, V., Keele, S., & McLeod, J. (2011). An integrated model for the evaluation of work placements. *Asia-Pacific Journal of Cooperative Education, 12*(3), 195–204.

Wald, H. S., Borkan, J. M., Taylor, J. S., Anthony, D., & Reis, S. P. (2012). Fostering and evaluating reflective capacity in medical education: Developing the REFLECT rubric for assessing reflective writing. *Academic Medicine, 87*(1), 41–50.

Walsh, S. (2014). *A mixed methods case study of early childhood professionals' perception and motivations of choosing self-directed learning* [Unpublished doctoral dissertation]. University of La Verne.

Walter, G., & Marks, S. (1981). *Experiential learning and change*. John Wiley and Sons.

Webb, M. (2004). *The critique of Kolb's ELT*. Youngstown State University.

Webber, K. L. (2012). The use of learner-centered assessment in US colleges and universities. *Research in Higher Education, 53*(2), 201–228.

Weible, R. (2009). Are universities reaping the available benefits internship programs offer? *Journal of Education for Business, 85*(2), 59–63.

Whitney, B., & Clayton, P. (2011). Research on the role of reflection in international service-learning. In R. Bringle, J. Hatcher & S. Jones (Eds.), *International service learning: Conceptual frameworks and research*. Stylus Publishing.

Wholey, J. S., Hatry, H. P., & Newcomer, K. E. (2010). *Handbook of practical program evaluation* (3rd ed.). Jossey-Bass.

Williams, J. (2004). Sport management internships: Agency perspectives, expectations, and concerns. *Journal of Physical Education, Recreation & Dance, 75*(2), 30–33.

Williamson, J. T. (2014). *The advising behaviors checklist: A study of preferred qualities and behaviors of academic advisors*. Doctoral dissertation from Auburn University.

W. K. Kellogg Foundation (WKKF) (1998). *Evaluation handbook*. W. K. Kellogg Foundation.

Wong, K., Kember, D., Chung, L., & Yan, L. (1995). Assessing the level of student reflection from reflective journals. *Journal of Advanced Nursing, 22*, 48–57.

Wyatt, F. R., Meditz, N., Reeves, M., & Carr, M. K. (1999). A cohort model for supervision of preservice teachers developed by mentor teachers. *Teaching and Change, 6*(3), 314–328.

Yarborough, D. B., Shulha, L. M., Hopson, R. K., & Caruthers, F. A. (2011). *The program evaluation standards: A guide for evaluators and evaluation users* (3rd ed.). Sage.

Yeo, R. K. (2009). Using problems as catalysts for workplace learning. *Today's Manager*, 34–37.

Yosso, T.J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race, Ethnicity and Education, 8*(1), 69-91.

Young, D. S., & Baker, R. E. (2004). Linking classroom theory to professional practice: The internship as a practical learning experience worthy of academic credit. *Journal of Physical Education, Recreation & Dance, 75*(1), 22–24

Zeng, W., Woodhouse, J., & Brunt, L. M. (2010). Do preclinical background and clerkship experiences impact skills performance in an accelerated internship preparation course for senior medical students? *Surgery, 148*(4), 768–777.

Zlotkowski, E., & Clayton, P. (2005, April). *Reclaiming reflection*. Paper presented at the meeting of the Gulf South Summit on Service-Learning and Civic Engagement, Cocoa Beach, FL.

Appendix: Sample Learning Experiences for Teaching

Learning Experiences for Teaching

Sample exercises that engage students in various practices attending to each of the modes of Kolb's theory of experiential learning are proposed throughout the guide. In addition to these exercises, teaching students the knowledge and skills in the various topics covered throughout the guide may further enhance students' understanding and engagement with each learning mode, thus contributing to effective student learning and development in the work-integrated learning experience.

Teaching students about experiential learning would enhance their understanding of their preferred learning style and their own process of learning during the work-integrated learning experience. Knowledge and skills of critical reflection would make students better able to self-direct reflective practice in the workplace and would give students the foundational knowledge and skills to structure formative and summative reflection assignments (e.g., essays, exit interviews, workplace narratives). Likewise, teaching students about specific transferable skills (e.g., communication, teamwork), and the skills of creativity and adaptability required for active experimentation in the workplace, would further enhance their ability to connect theory and practice and to test new ideas.

The following sample learning experiences are included for:

- Teaching students about ***experiential learning***
- Teaching students about ***reflection***
- Teaching students about ***nonverbal communication***
- Teaching students about ***teamwork***
- Teaching students about ***creativity***
- Teaching students about ***adaptability***

These experiences are written as if they are being delivered in a classroom learning environment but can be adapted to be delivered in an online format or as individual professional development activities offered by the postsecondary institution. Consideration of any accommodations or additional supports for students is also strongly encouraged.

GIVE IT A TRY!

Sample Learning Experience:
Experiential Learning

Overview

1. Introduction: What is experiential learning?
2. Puzzle exercise
3. Review Kolb's Learning Cycle and debrief puzzle exercise
4. Online video
5. Kolb's Learning Style Inventory
6. Review of learning styles

Reading

Evans, N. J., Forney, D. S., Guido, F. M., Patton, L. D., & Renn, K. A. (2010). Chapter 8: Kolb's theory of experiential learning. In *Student development in college: Theory, research, and practice* (2nd ed.) (pp. 137–152). Jossey-Bass.

1. Introduction: What is experiential learning?

- Definition of experiential learning
- This is an important topic to understand, as it serves as the theoretical basis for your own learning during your work experience.
- More specifically, if you can understand how you learn through experience, it may help you to be more cognizant of your own learning during your work experience and may help you identify ways in which your learning can be enhanced.
- Arguably the best way to introduce the subject of experiential learning is to experience it.

2. Puzzle exercise

- Have students form groups of 4-6.
- Learning and knowledge construction are analogous to piecing together parts of a puzzle to form a particular image.
- The goal of this exercise is to put together your puzzle and determine what the image is.
- You will have 30 minutes to work on the puzzle. [Exercise works best with 200-300-piece puzzles].
- Give each group a puzzle to work on. Do not give the students an image of the puzzle at this point – just the puzzle pieces. [Students may have to move to different parts of the room/hall in order to have enough space to do the puzzle].
- As students work on the puzzles, you can circle the groups to make sure they are on task. As the students are working, ask individual groups the following questions:
    - *Do you know what the image is?*
    - *If so, what makes you think that? How did you come to that idea?*
    - *Does anyone in the group have a different idea?*
    - *Did anyone in the group come to the same idea differently?*
- After 20-25 minutes, hand out the puzzle pictures (solution) and give the students 10 minutes to finish their puzzles using the image as a guide.

GIVE IT A TRY!

Sample Learning Experience: Experiential Learning (cont'd)

3. Review Kolb's Learning Cycle and debrief puzzle exercise

- Review Kolb's Learning Cycle, including:
  - The model describes the four modes of learning: Concrete Experience (CE), Reflective Observation (RO), Abstract Conceptualization (AC) and Active Experimentation (AE).
  - There are two ways in which you can ***take in*** experience: CE and AE.
  - There are two ways in which you can ***deal with*** experience: RO and AC.
  - You may begin the learning process in any of the four learning modes.
  - Most effective learning occurs when the learner uses all four modes of learning.
- Ask the class how their group addressed each mode in the learning cycle in their puzzle exercise. (Note: Depending on the learning styles of the group members, groups may not have addressed each learning mode but should be able to speak to at least a few).
- Answers:
  - ***Concrete Experience (feeling):*** Related to other people; Talked with other group members about their feelings and thoughts on what the image may be; Was sensitive to other group members' suggestions of what the image is and/or how to piece the puzzle together
  - ***Reflective Observation (watching):*** Observed parts of the puzzle coming together before making judgements; Reflected on how different sections of the puzzle may fit together to inform the total picture; Sat back and watched more than did other group members
  - ***Abstract Conceptualization (thinking):*** Systematically matched up pieces with the same colour/pattern; Grouped puzzle pieces into sections; Did the border first to get an understanding of the situation; Analyzed the puzzle picture to get an intellectual understanding of the final image and help finish the puzzle; Very logical in piecing together the puzzle
  - ***Active Experimentation (doing):*** Dove right in and tried to fit puzzle pieces together; Took risks and tried to fit pieces together that may or may not have worked; May have taken the lead in the group and influenced the group puzzle building with an action-oriented approach to determining the final image

GIVE IT A TRY!

Sample Learning Experience: Experiential Learning (cont'd)

4. Kolb's Learning Style Inventory (LSI)

- The LSI was designed to help identify your preferred learning style.
- Describe the learning styles in relation to each learning mode.
- Hand out LSI and give students 10 minutes to complete. (The LSI can be purchased from https://learningfromexperience.com).

5. Review of learning styles

- Describe each learning style: Diverging, Assimilating, Converging and Accommodating.
- Discussion questions:
  - According to the LSI, what is your preferred learning style? Do you agree? Why or why not?
  - Do you feel your preferred learning style is the same in all contexts?
  - How does this apply to your work experience? What tasks do you feel most comfortable/enjoyable doing at the worksite?
  - Although you may have a preferred learning style, we know that each learning mode should be addressed in order for learning to be most effective. How can you challenge yourself to use your non-dominant learning modes? What activities could this include at your worksite?
  - What are the strengths and challenges of each learning style in your field of work?
  - Workplace teams are most productive and successful when they include team members with diverse learning styles. Why is this the case? How is your individual learning style an asset to your work team/environment?

GIVE IT A TRY!

Sample Learning Experience:
Reflection

Overview

1. Introduce reflection and DEAL model
2. Origami exercise (with peer assessment)
3. Group discussion

Reading

Ash, S. L., & Clayton, P. H. (2009). Generating, deepening, and documenting learning: The power of critical reflection in applied learning. *Journal of Applied Learning in Higher Education, 1*, 25–48.

Rogers, R. R. (2001). Reflection in higher education: A concept analysis. *Innovative Higher Education, 26*, 37–57.

1. Introduce reflection and DEAL model

- Definitions
- Antecedents and characteristics
- Three-step process
- DEAL model of Critical Reflection

Word Search:

Locate words reflecting the five characteristics of quality reflection.

[Answer — CONTINUOUS; COMMUNITY; CONNECTION; CHANGE; INDUCTIVE/DEDUCTIVE]

P Z K S W U P Y T B I
D A D M T V O S C D A
C O N N E C T I O N S
D T P Q Q M Z O J U Y
I E V I T C U D E D O
S U O U N I T N O C R
N I N D U C T I V E S
U Z C O M M U N I T Y
A Y E D C H A N G E L
D F V T L Q S L P E D

GIVE IT A TRY!

Sample Learning Experience: Reflection (cont'd)

2. Origami exercise

- Handout exercise sheet [below], along with origami sheets and instructions. [Origami paper can be purchased or hand cut; Printable origami instructions are accessible online at www.origami-fun.com].
- After giving students time to follow the origami instructions and build at least one figurine, have them fill in their exercise sheet.
- Have students pair up and share their answers completed on the exercise sheet.
- Have students provide each other with feedback: identify at least one strength of the reflection and one area for improvement. Contrast exercise of reflecting on origami composition with reflection on the work experience.

Origami exercise sheet: Using the DEAL model

Intended learning outcome(s):

Define your specific learning objective for this task.

Intended Learning Outcome	
Learning Outcome What do I intend to learn?	How to build a _____ with origami paper
Strategies and Resources What resources are available?	Origami paper; origami instructions; peers
Criteria for Evaluation How will my goal be assessed?	Resemblance to image; difficulty of instructions; originality; number

Description of experience:

Reflection prompts associated with the Describe step address such issues as:

- When and where did the experience in question take place?
- Who was and was not present?
- What did you and others do or not do?
- What did you see, hear, etc.?

Description of Experience

GIVE IT A TRY!

Sample Learning Experience: Reflection (cont'd)

Examination:

Examination of experience is linked to the intended learning outcomes. The Examine step uses prompts such as:

- What were my initial feelings about this activity/intended learning outcome (LO)?
- What experiences informed my initial feelings?
- How did this experience make me feel (positively or negatively) in relation to the LO?
- How has my perspective/thoughts on this LO changed in light of my experiences?
- What specific situations/experiences may be attributed to this change?
- In what ways did I succeed or do well in this experience in relation to my defined LO?
- In what ways was I challenged in this experience in relation to my defined LO?

Examination of Experience

Articulation of Learning:

The Articulate Learning step of the DEAL model consists of four prompts:

(a) What did I learn?; (b) How did I learn it?; (c) Why does it matter?; and (d) What will I do in light of it?

Articulation of Learning	
What did I learn?	**How did I learn it?**
What did I learn?	**How did I learn it?**

3. Group discussion

- As a group, discuss the following questions:
  - How does this exercise apply to your structured work experience?
  - How can reflecting on your experiences in the work-integrated learning program benefit your workplace engagement? Capacity to learn? Knowledge and skill building? Future experiences?
  - How will you include reflection in your work-integrated learning experience?
  - When and where will it occur? How often? What questions will you ask yourself?
  - How will you demonstrate learning at the end of your work experience?

GIVE IT A TRY!

Sample Learning Experience:
Nonverbal Communication

Overview

1. Introduction: Nonverbal communication
2. Charades
3. "You don't say"
4. TED Talk video
5. Class discussion

Reading

Wood, J. T. (2010). Chapter 5: The world beyond words. *Interpersonal communication: Everyday encounters* (7th ed.) (pp. 117–141). Wadsworth.

1. Introduction: Nonverbal communication

- Definition of nonverbal communication = all aspects of communication other than words
- Similarities and differences between verbal and nonverbal communication
- Principles of nonverbal communication:
  - Nonverbal communication may supplement or replace verbal communication
  - Nonverbal communication may regulate interaction
  - Nonverbal communication often establishes relationship-level meanings
    - Responsiveness, liking, power
  - Nonverbal communication reflects and expresses cultural values

2. Charades

- Have students form groups of 4–6 and then pair up with a second group (total group size 8–10).
- Distribute charades board game. (Board games can be purchased at any games store).
- Have groups play against one another.
- After 30 minutes, stop game and have class discussion on how nonverbal communication is being used during the game.
- Review "Nine Types of Non-Verbal Communication" (see Wood, 2010).
- Have students re-start their games. This time, before each turn the student must also draw a card that indicates the type of nonverbal communication they may use to act out the word.

GIVE IT A TRY!

Sample Learning Experience: Nonverbal Communication (cont'd)

3. "You don't say"

- Inform students you are shifting focus from general nonverbal communication to nonverbal communication in a professional setting.
- Ask for a volunteer to come to the front of the class.
- Give volunteer a cue card with an action to act out.
- Have the class interpret the action and meaning. For each action and meaning identified, ask students to provide an example of when they may have seen this or interpreted this message in the workplace.
- Actions to write on cue card: 1. Leaning forward in a chair; 2. Learning back in a chair, arms folded; 3. Resting chin in both hands; 4. Yawning; 5. Smiling; 6. Frowning; 7. Smiling and nodding; 8. Rubbing your temples; 9. Glancing at watch; 10. Looking around the room; 11. Tapping fingers on the table.

4. TED Talk video

- Go to https://www.ted.com/talks/amy_cuddy_your_body_language_may_shape_who_you_are and play video "Your Body Language Shapes Who You Are."

5. Class discussion

- Can you think of a situation in your work setting when verbal communication does not suffice?
- Nonverbal communication can convey three dimensions of relationship-level meaning. Can you think of an example of nonverbal communication that occurred in your professional placement that conveyed "responsiveness"?
- Can you think of an example of nonverbal communication that occurred in your professional placement that conveyed "liking"?
- Can you think of an example of nonverbal communication that occurred in your professional placement that conveyed "power"?
- Are there any examples of nonverbal communication (i.e., touch, space, eye contact, timing, etc.) that are specific to the culture of your work setting/organization? How do you manage your own nonverbal communication to conform to these cultural values?
- What environmental factors are used in the workplace as a form of nonverbal communication (i.e., colours, room design, temperature, sounds, smell)?
- Can you think of an example when you may have used paralanguage in your communications in your work experience? What was the message that was conveyed through this behaviour?

GIVE IT A TRY!

Sample Learning Experience:
Teamwork

Overview

1. Introduction: Teamwork
2. Scavenger hunt
3. Class discussion

Reading

Kayes, A. B., Kayes, D. C., & Kolb, D. A. (2005). Experiential learning in teams. *Simulation & Gaming, 36*, 330–354.

1. Introduction: Teamwork

- Definition of teamwork
- Pitfalls of teamwork in organizations (i.e., social loafing; groupthink; overdependence on a dominant leader; overcommitment to goals; diffusion of responsibility)
- Six aspects of team development (i.e., purpose; membership; role leadership; context; process; action)

2. Scavenger hunt

- Create a list of recognizable locations across campus. Using this list, develop a scavenger hunt by identifying a location for a group photo and the number of points assigned to each photo location. Points should be higher the farther away the location is from the classroom. Be sure to have more items than is possible to complete within the time allotted. High point items should be in locations of great distance from one another, so that teams have to negotiate their route and items for the challenge. By including a combination of group (higher points) and individual photos (lower points), groups may also plan to divide and conquer by assigning specific photos to specific group members and then setting up times/locations to meet for the high point group photos. [E.g., Group photo sitting in an empty lecture room (10 points); Photo of a team member in front of a slushy machine (6 points); Photo of a team member with a campus security officer (4 points); Photo of a team member holding today's newspaper (2 points)].
- Distribute scavenger hunt instructions and rules. Be sure to set a deadline and have an enticing prize for the winning group.

Instructions:

- Below is a list of photo locations.
- Work as a team to get a photo of a team member at as many locations as possible.
- Each location is assigned a point value.
- The team with the greatest amount of points is the winner.

Rules:

- You must work in teams of 4-6.
- Try to gain as many points as possible. The team with the most points win.
- The entire team must return in 1 hour. Late teams will be DISQUALIFIED.
- In the event of a tie, the winning team will be the team with the quickest time.

GIVE IT A TRY!

Sample Learning Experience: Teamwork (cont'd)

Following the scavenger hunt, have each group complete the following debrief questions:

Scavenger Hunt Debrief Exercise

Congratulations! You have completed the scavenger hunt. Please take a few minutes to answer the following questions as a group.

PURPOSE	MEMBERSHIP
1. What was the team's purpose in the scavenger hunt? 2. Did any individual team members have a different goal than that shared by the team? If yes, please describe. 3. List the specific goals your team developed (i.e., What was the plan the team came up with in order to get the most scavenger points possible within the hour?).	4. Who was included in your team (list each student's name)? 5. Did the group work well together? Please explain.

ROLE LEADERSHIP

6. What role did each team member play? Please assign each team member at least one of the roles below. You may have more than one team member per role.

12 Team roles

Interpersonal
#1 Leading: Team member(s): _____
#2 Relationship-building: Team member(s): _____
#3 Helping: Team member(s): _____

Information
#4 Sense-making: Team member(s): _____
#5 Information gathering: Team member(s): _____
#6 Analyzing information: Team member(s): _____

Analytic
#7 Theory-building: Team member(s): _____
#8 Working with quantitative data: Team member(s): _____
#9 Using technology: Team member(s): _____

Action
#10 Goal-setting: Team member(s): _____
#11 Action-taking: Team member(s): _____
#12 Taking initiative: Team member(s): _____

CONTEXT	PROCESS/ACTION
7. What resources were available? 8. Were tasks divided among team members? If so, what task was each member assigned?	Please add up your scavenger points. ***Total points*** =

GIVE IT A TRY!

Sample Learning Experience: Teamwork (cont'd)

3. Class discussion

- Describe a situation in which you were asked to work as part of a team in your work placement.
- What are the benefits of teamwork in your work placement?
- In your experience working in teams (in your work placement or another setting), what are the limitations of teamwork?
- How does your experience compare with the five pitfalls of teamwork in organizations listed by Kayes et al. (2005)?
- How does your learning style compare to the learning styles of the other team members you work with in your work placement? How does this affect your learning? How does this affect the effectiveness of the team? Is this consistent with the research reported by Kayes et al. (2005)?
- Describe an effective and an ineffective experience with teamwork in your work experience. What was the difference between these experiences? What were the differences in team size, diversity and compatibility, cohesion, trust and psychological safety, and inclusion?
- What role do you generally play on a team in the workplace? Does this change in different scenarios/settings? If so, how? What influences the role you play?

GIVE IT A TRY!

Sample Learning Experience:
Creativity

Overview

1. Introduction: Creativity
2. Creativity activities
3. Core competencies of creativity
4. Class discussion

Reading

Dietrich, A. (2004). The cognitive neuroscience of creativity. *Psychonomic Bulletin & Review, 11*, 1011–1026.

Simonton, D. K. (2000). Creativity: Cognitive, personal, developmental, and social aspects. *American Psychologist, 55*, 151–158.

1. Introduction: Creativity

- Creativity = The ability to produce work that is both novel (i.e., original, unexpected) and appropriate (i.e., useful, adaptive concerning task constraints)
  - List any examples of creativity you may have observed in your structured work experience.
  - Why is creativity important in the workplace?
- Creativity myths
- Four types of creativity (i.e., Deliberate mode – Cognitive structures; Deliberate mode – Emotional structures; Spontaneous mode – Cognitive structures; Spontaneous mode – Emotional structures)

2. Creativity activities

Have the class divide into four groups. Four activities should be set up. Each group of students will rotate through the four activities, spending 15-20 minutes at each activity station.

Activity #1: Lego	• In groups of 3-4, work together to assemble the Lego set. • Use the photos on the back of the set to guide your decisions on what to build. • Feel free to add creative elements to your Lego design. • If time permits, rotate through multiple Lego sets.
Activity #2: Optical Illusions	• Work through the "Illusions: Experiential Exercises" booklet. (A booklet of optical illusions and puzzles can be assembled by searching for illusions online). • Record your answers on the separate answer sheet (please do not write in the booklets). • Once you have completed the exercises, discuss your answers in groups of 3-4.

GIVE IT A TRY!

Sample Learning Experience: Creativity (cont'd)

Activity #3: Tetris	• Take 2-3 minutes to complete the quiz provided. [The quiz should include general questions that the students should know the answers to, but are not easily remembered. E.g., In what town was the book "Anne of Green Gables" set?; What is the equation for the Pythagorean Theorem?; Name the five Great Lakes; Who was the first prime minister of Canada?].
	• Leave any answers you do not know blank. You will have a chance to return to this quiz later.
	• DO NOT discuss your answers with others.
	• Using your computer, play online Tetris for five minutes (https://www.freetetris.org).
	• After five minutes of game play, return to the quiz and try to answer any questions on the quiz you left blank.
	• Take time to think about the following questions:
	  • Did any answers pop into your head as you were playing Tetris?
	  • Did any other ideas pop into your head while you were playing Tetris?

Activity #4: Play Doh	• Using the Play Doh provided, create a sculpture representative of each of the following items/themes:
	  • Yourself
	  • Your favourite vacation destination
	  • A religious event
	  • An important person in your life
	  • Your favourite song
	  • A love story
	  • A fairy tale
	  • A children's game
	  • A season
	  • Your professional placement
	• Create one sculpture per item/theme listed.
	• You will have approximately 60 seconds for each sculpture.
	• Be sure to share your creations with your peers.

GIVE IT A TRY!

Sample Learning Experience: Creativity (cont'd)

Debrief:

- Which basic type of creativity were you practicing in each activity station?
- What tasks were easy for you?
- What tasks were challenging?
- How do you think you could improve your creativity?
- How can you improve your creativity in your work experience?

Core competencies of creativity

- Explain core competencies of creativity (i.e., capturing, challenging, broadening, surrounding).
- For each core competency, have students identify how they may improve this competency in order to increase their professional creativity in their structured work experience.

Class discussion

- List any examples of creativity you may have observed in your work experience.
- Why is creativity important in your work placement?
- What aspects of the interpersonal, disciplinary and sociocultural environment of your work site encourage creativity?
- List an example of creativity for each of the basic types of creativity outlined by Dietrick (2004).
- Based on what we know about creativity and age, why is it good for professional organizations to continually hire "new young minds"? How could you use this to your advantage when looking for a career in your work organization?

GIVE IT A TRY!

Sample Learning Experience:
Adaptability

Overview

1. Introduction: Adaptability
2. Case studies
3. Class discussion

Reading

O'Connell, D. J., Neely, E., & Hall, D. T. (2008). Unpacking personal adaptability at work. *Journal of Leadership & Organizational Studies, 14*, 248-259.

Pulakos, E. D., Arad, S., Donovan, M. A., & Plamondon, K.E. (2000). Adaptability in the workplace: Development of a taxonomy of adaptive performance. *Journal of Applied Psychology, 85*, 612-624.

1. Introduction: Adaptability

- Definition of adaptability = "the capacity to change, including both the competence and the motivation to do so"
- Review eight dimensions of adaptive performance.
- As a class, discuss which dimension of adaptive performance is applicable to different job descriptions.
- Antecedents of personal adaptability (i.e., individual characteristics, human capital factors, work environment)

2. Case studies

- Have students form groups of 4-6.
- Assign each group a dimension of adaptive performance.
- Instruct students to put together a case study or hypothetical case study illustrating this dimension of adaptive performance in any one of their placement settings.
- Each group should prepare a three-minute presentation on their case study and how they would adapt to the situation.
- Students should:
    - Describe the scenario.
    - Explain how they would respond.
    - Explain why they think this may be the best response.
    - Identify what dimension of adaptive performance was employed in the case.
- Give the students time to prepare (e.g., 15-20 min).
- After students have prepared their presentation, call each group up one at a time to present their case. As each group comes to the front of the class, give the students a cue card that indicates the situation to which they must adapt in their presentation. Be creative (e.g., The presentation must be done in rhyme; Each student must present a section of the case study, presenting in alphabetical order of the students' first names; The students cannot talk – they must present the case as a dance; The presentation must be conducted as a song; The presentation must be conducted in a language other than English or French).

GIVE IT A TRY!

Sample Learning Experience: Adaptability (cont'd)

- Give each group a minute to adjust its presentation based on the instructions on the cue card. The intention is for the students to be forced to adapt to changing circumstances on the spot. Note: This is a learning activity. It will work best without marks assigned.

Case study debrief:

- How challenging was the exercise?
- What made the exercise challenging?
- What made it easier?

3. Class discussion

- What changing circumstances may be occurring in your work placement that require professionals to be more adaptive?
- What are some of the new or changing circumstances to which you have had to adapt in your professional placement?
- How has your workplace supervisor supported you and enhanced your own personal adaptability in your placement setting?
- What emergency-type situation could occur in your place of work? How would you respond if you encountered this type of situation?
- What would you identify as your strongest dimension of adaptive performance? Please provide an example of how you may have used this in your work experience?
- What would you identify as your weakest dimension of adaptive performance? How could you strengthen your abilities in this area?

Work-integrated learning is a pedagogical practice whereby students come to learn from the integration of experiences in educational and workplace settings.

This guide is intended to serve as a resource to enhance student learning and development in higher education through the structured work experience.

- Work-integrated learning has emerged as a key pedagogical strategy to enhance student learning and development.
- Integrating curricular learning with workplace experience provides students with an opportunity to combine theory and practice in a real-world work environment, deepening students' knowledge and understanding, and enhancing work-related capabilities.
- Work-integrated learning is becoming increasingly popular in higher education.
- Many of the postsecondary students in Ontario direct-entry programs will experience work-integrated learning by graduation. This does not take into account the vast number of work-integrated learning opportunities offered by second-entry/graduate programs.

Higher Education Quality Council of Ontario
An agency of the Government of Ontario