TAKING THE PULSE OF
WORK-INTEGRATED LEARNING
IN CANADA

REPORT SUPPLEMENT
In April 2015, the Business Council of Canada established the Business/Higher Education Roundtable (BHER), a national forum comprising 27 leaders from business, universities, colleges and polytechnics. BHER works to support young Canadians as they transition from education to the workplace, strengthen research collaboration between industry and institutions, and help Canadian employers as they adapt to the economy of the future.

The Roundtable identified two priority initiatives with the following goals:

- Help young Canadians make the transition from school to work through collaborative partnerships between the business community and post-secondary institutions and promoting practice-based learning opportunities for students.
- Strengthen research, development and innovation partnerships between Canadian companies and post-secondary institutions.

The Roundtable has engaged Academica Group, a higher education consultancy, to examine:

- The scope of work-integrated learning available at post-secondary institutions in Canada.
- The extent to which post-secondary students participate in work-related programs.
- Best practices in the design and implementation of work-integrated learning programs.

This report reviews the extensive academic research on these topics. It outlines numerous challenges that have emerged in the field of work-integrated learning in Canada. It also identifies a number of practices and recommendations that could alleviate these concerns and promote a high-quality, high-value experience for students.
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WHAT IS IT?

The definition of work-integrated learning, often abbreviated to WIL, has become increasingly blurred as the drive to offer practical, work-related instruction gains impetus. Each college, university and polytechnic uses its own language to market, deliver and measure its programs. To add to the confusion, the term “work-integrated learning” is often used interchangeably with other, similar terms such as “work-based learning,” “practice-based learning,” “work-related learning,” “vocational learning,” “experiential learning,” “co-operative education,” “clinical education,” “internship,” “practicum,” and “field education”. However, many of these terms are also used to describe specific types of work-integrated learning. This inconsistency can lead to funding and administrative problems, and create confusion among employers and students over objectives and expectations.

This report advocates for the following broad definition of WIL, compatible with the definition used by the Higher Education Quality Council of Ontario:

Work-integrated learning is the process through which students come to learn from experiences in educational and practice settings. It includes the kinds of curriculum and pedagogic practices that can assist, provide, and effectively integrate learning experiences in both settings.

In practice, all types of work-integrated learning have seven common attributes:

- Purpose
- Context
- Nature of the integration
- Curriculum issues
- Learning
- Partnerships between the educational institution and the workplace or community
- Support provided to the student and to the workplace or community

As Professor Ashley Stirling of the University of Toronto and others have noted: “The benefits of work-integrated learning are not implicit within the work itself, but rather in the integration of theory and practice facilitated through the work-integrated learning experience.”
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STUDENT PARTICIPATION

In the absence of relevant national data, we have no way of knowing exactly how many students are involved in school-to-work transition programs at Canadian post-secondary institutions. However, we can make some rough estimates, based on the limited data available:

- About half of university students take part in some form of work-integrated learning during their post-secondary studies.
- Between 65% and 70% of college and polytechnic students enrol in such programs.
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COMPONENTS

One academic model has identified no fewer than three dozen activities that can be grouped under the umbrella of work-integrated learning. They range from mock interviews and role playing, to volunteering, vacation work and one-day site visits. For ease of analysis, this report focuses on seven types of work-integrated learning, grouped under three main categories:

Systematic training, where most learning is done in the workplace.
- **Apprenticeships**
  A combination of in-school training for a skilled trade or occupation, and on-the-job workplace training.

Structured work experience, where students become familiar with the world of work as part of a university or college program.
- **Co-op**
  Periods of study alternate with work placements, offering students a structured approach that integrates their studies with work experience in a related field.
- **Internships**
  Work experiences, typically lasting a year or more, at or near the end of a study program.
- **Mandatory professional practice**
  Work arrangements required for a professional license or designation.
- **Field experience**
  Placements and work-related experiences that prepare students for professional or occupational fields, but are not required for a professional license.
Institutional partnerships are activities or programs offered by a university, college or polytechnic, and designed to achieve specific industry or community goals.

- **Applied research projects**
  Students taking on real-world projects, often with industry partners as clients and the students as service providers.

- **Service learning**
  A range of activities intended to provide equal benefit to the service provider (the student) and the recipient (the community) while maintaining a focus on learning.

In addition, two new types of work-integrated learning have emerged in recent years, based largely on the importance of innovation in the digital economy:

- **Incubators and accelerators**
  Intended primarily to promote entrepreneurship, but the scope of their services has expanded in recent years to include social initiatives. Qualified applicants may receive funding, supervision, and mentorship from experienced practitioners.

- **Bootcamps and hackathons**
  Popular venues for computer programmers and app designers to develop and showcase their skills. These events are widely seen as a more practical alternative to university computer science programs, and more responsive to industry demands. But the quality of instruction varies markedly due to a lack of oversight and regulation.
Stakeholder groups face a variety of challenges in implementing work-integrated learning initiatives. We have grouped these barriers under four main categories:

**Cost**
Implementing work-integrated learning programs can be costly for all parties involved. Employers must invest in training and/or compensation for participating students, and consider the cost in time and resources of supervising and mentoring them. Universities and colleges must bear the considerable cost of developing and nurturing relationships with industry and community partners, as well as building and developing WIL programs. Finally, students often voice concerns about the costs of work-integrated learning, including unexpected financial outlays, the effect on their studies, and fair compensation.

**Supply and demand**
Providing an adequate supply of WIL opportunities to meet student demand is a continuing challenge. Beyond simply creating an adequate number of spaces, educational institutions and their partners often have difficulty finding an appropriate fit between a work-integrated learning opportunity and the needs of a specific academic program or student. This balancing act will become even more critical as work-integrated learning expands in new directions.

**Administrative burdens**
Administering a work-integrated learning program is a labour-intensive task for all parties. Industry and community partners have expressed frustration at the time-consuming processes that they encounter at educational institutions, which themselves put considerable effort into managing their WIL programs. Faculty members surveyed for one study acknowledged that they rarely dealt directly with business, government or community partners, underlining the difficulty of integrating classroom work with workplace training.

**Measuring outcomes**
The varied and unpredictable nature of WIL assignments often makes it difficult to assess individual students’ performance in a work environment. On a much larger scale, the sheer diversity of work-integrated learning and disagreements over its definition complicate efforts to measure the success of WIL programs against a uniform benchmark. Given the limitations of traditional assessment methods, new approaches—designed in collaboration with all relevant stakeholders—will be needed.
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BEST PRACTICES

Work-integrated learning programs vary widely, depending on the context of their development and delivery, their goals, student and industry needs, and the aims of the college, polytechnic or university offering them. Nonetheless, a number of best practices should apply to any program, regardless of size or scope. They include the points on the following pages.
Design with the outcome in mind:

A foundation of clearly articulated goals is essential to any successful WIL initiative. That foundation should include a definition of desired outcomes, a means of assessment, and a learning plan. Moreover, the program’s goals should drive its content as well as its implementation. Program outlines should state specifically what students will be expected to know or able to do at the end of their work-integrated learning experience.

Understand faculty needs:

Faculty are generally supportive of work-integrated learning, especially at colleges. A 2012 survey found that 95% of college and 83.5% of university faculty in Ontario agreed or strongly agreed that WIL is valuable, with most indicating that students are the primary beneficiaries. However, they also raised a number of concerns. The most common include ensuring quality placements, finding enough placements for students, and faculty workload.

Faculty members also report that they seldom have direct interaction with business, government or community members. Instead, they tend to limit themselves to using business examples in class and providing career assistance. Integration of student learning and real-world work experience is more common among college than university faculty. Some faculty have also raised concerns that work-integrated learning is slanted towards turning out the maximum number of workers, rather than providing students with a broad, theoretical education.

Collaborate with all stakeholders:

A successful WIL initiative requires input from all stakeholders, and collaboration among them. They include representatives of participating educational institutions, faculty, industry and community partners, and students. All these groups must understand the benefits and purpose of work-integrated learning, both in a general sense and in the context of a specific initiative.

Colleges, polytechnics and universities should work closely with professional organizations to ensure that each program meets the needs of a given industry or community. Similarly, faculty members should join relevant professional societies, attend professional conferences, invite professionals into the classroom to speak to students, and even assess student work.

Initiating a partnership requires preparation and adequate resources, not just to set up the relationship but for its continuing success. It is critical that colleges and universities bear in mind the goals of employers and other partners. In particular, they need to recognize that educational outcomes do not always dovetail neatly with commercial objectives.

Employers’ motivation to take part in a work-integrated learning program often varies according to their size. One survey showed that the smallest employers were more likely to choose “giving back” as their top reason for participating, and were less likely to cite the desire for a specific skill or talent. Businesses with 10–19 employees were more likely to cite “enhancing company reputation”. Firms with 20–49 employees mentioned “pre-screening of new hires” as their key attraction. For larger firms, “managing short-term workflow pressures” was the main drawcard.

Create a constructive learning space:

The learning space refers not just to a physical location, but also the social environment in which a WIL program takes place. Creating an effective learning space entails constructive assessment that enables students to learn and improve, as well as quality mentorship from individuals who understand the program’s goals. The rewards include mitigating risk and ensuring that the program meets learners’ diverse needs.
Many educational institutions reinforce this process by developing effective risk-management techniques in consultation with their legal teams. These typically cover workplace health and safety policies, intellectual property and confidentiality issues, student misconduct, coordination of policies between the workplace and the institution, remuneration issues, and workplace and sexual harassment.

**Facilitate reflection:**

A period of reflection, defined as “understanding one’s own philosophy and re-evaluating it in light of experiences”, helps solidify the skills acquired by students in work-integrated learning programs. Reflection also enhances students’ capacity to examine their own strengths and shortcomings. Students’ feedback indicates that it often takes time for them to realize that an apparently negative experience can turn out to be a fruitful learning opportunity.

**Integrate theory and practice:**

Poor integration of theory and practice is one of the greatest obstacles to success in WIL programs. Effective integration should be an explicit objective, with educational institutions and their partners working to ensure that it happens in both directions. This means working with students and external partners to clarify the practical relevance of theoretical work and, conversely, the value of practical experience in the classroom. Integration should be a shared responsibility among all stakeholders.

A study by South Africa’s Council on Higher Education recommends that students be exposed to problem- or project-based learning prior to enrolling in a workplace program in order to ensure that they are adequately prepared for the placement. Students must have a thorough understanding of workplace expectations, and of their own institution’s expectations. They should also be informed how to respond to problems that may affect their ability to meet these expectations.

**Maintain, evaluate, and improve:**

The success of a WIL program typically hinges on frequent evaluation against a carefully selected model based on the program’s desired outcomes. Such an evaluation gives the educational institution a clearer understanding of the needs of all participants. It also measures the degree to which a program is achieving its goals, and helps identify specific shortcomings and solutions.
Besides the specific best practices summarized above, we have distilled four core recommendations from the research into work-integrated learning:

**Adopt a common language:**
At present, there is no generally agreed description of work-integrated learning. The term itself is not uniformly applied, and descriptions of specific types of WIL are often confusing. We strongly recommend using the following definition:

Work-integrated learning is the process through which students come to learn from experiences in educational and practice settings. It includes the kinds of curriculum and pedagogic practices that can assist, provide, and effectively integrate learning experiences in both settings.

**Improve data collection:**
No data is currently available on participation in the full spectrum of work-integrated learning activities offered by post-secondary institutions across Canada. Given this gap, we see an opportunity for a more consistent national approach to collecting the relevant data. There appear to be two main options to achieve this goal: graduate surveys and administrative data. Each has its own merits and challenges.

**Build an evaluation mechanism:**
In the interests of maintaining high-quality programs, a framework should be developed to evaluate the success of WIL initiatives. The ability to build such a framework depends on developing a uniform definition of work-integrated learning, as well as consensus on its objectives. These efforts should involve all stakeholder groups, notably relevant educational institutions, industry, government, community partners and students. The resulting framework could help identify strengths and weaknesses in various programs, and as a tool for making adjustments as needed.

**Encourage coordination among stakeholders:**
The success of any WIL project hinges on the way its goals are set. Even so, an over-arching strategy can—and should—be developed as part of the effort to expand opportunities for Canadian students. Institutions must work together and with relevant stakeholders to build a shared understanding of the overall benefits, risks and challenges of work-integrated learning. Such cooperation will help them develop an array of tools to improve and expand WIL initiatives.