Work-Integrated Learning: A Strategy for Future Proofing the Global Economy

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WHY DO WE NEED TO FUTURE PROOF THE GLOBAL ECONOMY?
FUTURE CONDITIONS FACING US

Climate change, globalization, technological advancements and disruption, shifting economic and political landscapes, aging populations, social and economic divides has led to:

A “VUCA” WORLD

VOLATILITY
UNCERTAINTY
COMPLEXITY
AMBIGUITY
SHIFTING TO INDUSTRY 4.0

5 BIG TRENDS:

• Fluid gigs (gig economy)
• Decentralized teams
• Motivation to work
• Lifelong learning
• Human augmented automation

Source: Forbes, July 2019

Source: A Medium Corporation (2017)
HOW CAN WORK-INTEGRATED LEARNING BE A STRATEGY?

A QUICK PRIMER...
Experiential learning is the process of learning through experience, and is more specifically defined as "learning through reflection on doing".
Work-integrated learning (WIL) is a sub-set of experiential learning. WIL formally and intentionally integrates a student’s academic studies with learning in a workplace or practice setting.

WIL experiences normally include an engaged partnership between an academic institution, a host organization/employer and a student.

(CEWIL, 2019)
WIL THAT IS QUALITY, INTENSE AND MAKES AN IMPACT WILL HELP FUTURE PROOF OUR COUNTRIES FOR GLOBAL ECONOMIC SUCCESS.

...SO HOW DO WE GET THERE?
A QUALITY WIL FRAMEWORK: AAA ★
FIRST: CLARITY AND QUALITY MATTER

This is key especially when there is an increased demand for WIL, and when we are unsure about what constitutes WIL – conflation with EL:

- Know what we are talking about
- Enable standards
- Allow for data collection and research
- Provide guidance for stakeholders
- Protect stakeholders
HOW DO YOU DEVELOP A QUALITY WIL FRAMEWORK?

Waterloo Centre for the Advancement of Co-operative Education (WatCACE)

• Literature review on quality in WIL and quality assurance frameworks
• Discussions with:
  • research team and experts in field
  • practitioners and leaders
  • stakeholders and advocates

Publication of white paper November 2018
A QUALITY WIL FRAMEWORK:

AIMS

ACTIONS

ACHIEVEMENTS
WHO ARE THE MAIN STAKEHOLDERS?

STUDENTS + ADVOCATES

HOST ORGANIZATIONS/EMPLOYERS + ADVOCATES

INSTITUTIONS + ADVOCATES

GOVERNMENTS + ADVOCATES

EDUCATORS + ADVOCATES

AAA★
WHAT ARE THE AIMS FOR EACH STAKEHOLDER?
<table>
<thead>
<tr>
<th>STUDENTS</th>
<th>INSTITUTIONS</th>
<th>GOVERNMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands-on learning</td>
<td>Recruitment</td>
<td>Graduate employability</td>
</tr>
<tr>
<td>Application of theory in practical settings</td>
<td>Retention</td>
<td>Community university connectivity</td>
</tr>
<tr>
<td>Development of technical, soft and meta skills</td>
<td>Engaging pedagogy</td>
<td>Closing the skills gap</td>
</tr>
<tr>
<td>Career and purpose clarity</td>
<td>Connections with industry and community</td>
<td>Economic development and productivity</td>
</tr>
<tr>
<td>Employability</td>
<td>Successful graduates and stronger alumni links</td>
<td></td>
</tr>
<tr>
<td>Offset costs of education</td>
<td>Relevance to government and funders</td>
<td></td>
</tr>
<tr>
<td>EMPLOYER</td>
<td>EDUCATOR</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Recruitment of talent</td>
<td>Recruitment of talent</td>
<td></td>
</tr>
<tr>
<td>Exposure to current research, technology and ideas</td>
<td>Engagement in discipline</td>
<td></td>
</tr>
<tr>
<td>Engaging staff</td>
<td>Development of skills and personal capabilities that strengthen academic achievement</td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>Development of purpose and career clarity</td>
<td></td>
</tr>
<tr>
<td>Project completion</td>
<td>Opportunity to renew curriculum</td>
<td></td>
</tr>
<tr>
<td>Connections to academic institution</td>
<td>Connections to industry and community</td>
<td></td>
</tr>
</tbody>
</table>

**AIMS**
WHAT ACTIONS NEED TO BE TAKEN TO REACH THE AIMS?
Whatever the type of WIL program, the quality practices of P.E.A.R. apply to the actions.
<table>
<thead>
<tr>
<th>ACTION</th>
<th>TIMING</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEDAGOGY</td>
<td>Before</td>
<td>Skill development related to job readiness and preparation for experience</td>
</tr>
<tr>
<td></td>
<td>During</td>
<td>Additional training/content to address needs during experience and job training</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>Next phase of content and technical skill development, additional skill training for further work experiences, career development and capstone</td>
</tr>
<tr>
<td>EXPERIENCE</td>
<td>TIMING</td>
<td>ACTION</td>
</tr>
<tr>
<td>------------</td>
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</tr>
</tbody>
</table>
|            | Before | **Student:** needs to be identified, qualified and prepared for experience  
**Host organization:** needs to be sourced, vetted and prepared for the student  
**Institution:** identifies meaningful experiences and prepares students and employers |
|            | During | **Student:** needs to engage in an ethical, responsible manner  
**Host organization:** needs to provide a supportive environment for the student experience  
**Institution:** needs to monitor quality of experience |
|            | After  | **Student:** completes required employer and institutional requirements for experience  
**Host organization:** meets obligations made to the student and institution  
**Institution:** follows up with student and host organization to ensure retention of quality experience on an ongoing basis |
<table>
<thead>
<tr>
<th>ACTION</th>
<th>TIMING</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSESSMENT</td>
<td>Before</td>
<td>Student and employer/host organization understand assessments to be conducted</td>
</tr>
<tr>
<td></td>
<td>During</td>
<td>Learning goals established and learning and performance assessment conducted including by employer/host organization</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>Required assessments completed, including those required by employer/host organization. The assessments recorded by Institution</td>
</tr>
<tr>
<td>REFLECTION</td>
<td>ACTION</td>
<td>TIMING</td>
</tr>
<tr>
<td>------------</td>
<td>--------</td>
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</tr>
<tr>
<td></td>
<td>Before</td>
<td>Student reflects on what meaning they want to gain from the experience and then student identifies learning outcomes as appropriate for employer/host organization context.</td>
</tr>
<tr>
<td></td>
<td>During</td>
<td>Student reflects about experience while engaged. Student identifies the development of learning outcomes, including those related to employability and career development.</td>
</tr>
<tr>
<td></td>
<td>After</td>
<td>Student reflects on the impact of the experience and their next steps including related to employability and career development.</td>
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</tbody>
</table>
HOW DO YOU MEASURE ACHIEVEMENTS?
<table>
<thead>
<tr>
<th>ACHIEVEMENT</th>
<th>EXAMPLE</th>
</tr>
</thead>
</table>
| **PEDAGOGY** | • Curriculum: before, during and after  
| | • Number of courses  
| | • Type of courses  
| | • Development of technical and soft skills, including those related to employer/host organization needs  
| | • Curricular mapping: how do the experiences map into the overall curriculum?  
<p>| | • Employer/industry input into curriculum may occur |</p>
<table>
<thead>
<tr>
<th>ACHIEVEMENT</th>
<th>EXAMPLE</th>
</tr>
</thead>
</table>
| EXPERIENCE  | • Number of students engaged  
              • Number of host organizations  
              • Number of experiences  
              • Successful completion  
              • Application, interview, employment rates  
              • Employability outcomes  
              • Recruitment and retention in labour market |
<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Identification of learning objectives</td>
</tr>
<tr>
<td></td>
<td>• Articulation of learning outcomes, including those related to employability</td>
</tr>
<tr>
<td></td>
<td>• Student learning measurements and reports, including connections to career</td>
</tr>
<tr>
<td></td>
<td>• Achievements related to impact on employers/host organizations</td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>EXAMPLE</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| REFLECTION  | • Student reflection outcomes, including related to employability and career development  
|             | • Impact measurements, including related to employer/host organization talent recruitment and retention needs  
|             | • Development of habits of mind for lifelong learning |
QUALITY WIL FRAMEWORK: AAA★

What continuous improvement processes are in place?
QUALITY IMPROVEMENT

- Student improvement (student achievement record)
- Program improvement (curricular renewal)
- Stakeholder engagement, including employer/host organization
- Use of data and data analytics, including as related to employer recruitment and retention
- Impact analysis for each stakeholder including for employer/host organization
HOW DO YOU MEASURE THE INTENSITY OF A WIL PROGRAM?
THE NINE TYPES OF WIL

- Co-operative Education
- Apprenticeship
- Entrepreneurship
- Internships
- Service Learning
- Field Placement
- Mandatory Professional Practicum/Clinical Placement
- Applied Research Projects
- Work Experience

Source: CEWIL 2019
NOT ALL WIL PROGRAMS ARE CREATED EQUAL

Each type of WIL requires different time in the workplace. Length of time in the experience is related to intensity of experience.

<table>
<thead>
<tr>
<th>Time x Quality = Intensity of experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
</tr>
<tr>
<td>Quality practices</td>
</tr>
<tr>
<td>Intensity</td>
</tr>
</tbody>
</table>

![Diagram showing Time, Quality, Intensity relationship]

**University of Waterloo**
HOW DO YOU MEASURE THE IMPACT OF A WIL PROGRAM?
VARYING LEARNING OUTCOMES OF DIFFERENT TYPES OF WIL

• Vocation specific skills
  • Apprenticeship

• Employability related capabilities
  • Co-operative Education
  • Internships
  • Work Experience

• Entrepreneurial mindset
  • Entrepreneurship

• Service to community mindset
  • Service learning

• Research skills
  • Applied research projects

• Profession specific skills
  • Mandatory Professional Practicum/Clinical Placement

• Discipline specific technical skills
  • Field placement
University of Waterloo’s FUTURE READY TALENT FRAMEWORK
FUTURE READY TALENT

Expand & transfer expertise
+ Develop self
+ Build relationships
+ Design & deliver solutions

= Future Ready Talent
## UNIVERSITY OF WATERLOO’S FUTURE READY TALENT FRAMEWORK

<table>
<thead>
<tr>
<th>Expand + Transfer Expertise</th>
<th>Develop Self</th>
<th>Build Relationships</th>
<th>Design + Deliver Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>information &amp; data literacy</td>
<td>self-assessment</td>
<td>communication</td>
<td>critical thinking</td>
</tr>
<tr>
<td>technological agility</td>
<td>self-management</td>
<td>collaboration</td>
<td>innovation mindset</td>
</tr>
<tr>
<td>context-specific knowledge &amp; skills</td>
<td>life-long learning &amp; career development</td>
<td>intercultural effectiveness</td>
<td>implementation</td>
</tr>
</tbody>
</table>
Learning Outcomes

Intensity

Learning Impact

AAA★

ACHIEVEMENTS

(Time x Quality)
DIFFERENCES IN WIL

Work-integrated learning can be categorized as nine types, all built upon quality practices (P.E.A.R.) but differences in:

How the quality practices are enacted
Cumulative time spent in the experience
Learning Outcomes
Reflection
Learning Impact
WIL PROGRAMS CAN FUTURE PROOF THE GLOBAL ECONOMY IF WE:

- Invest in quality practices
- Allow students enough time in these experiences to strengthen intensity, build resilience and ROI
- Focus learning outcomes on preparing students for the future of work
- Position reflection as developing habits of mind for lifelong learning
- Appreciate and integrate the impact from their learning into our institutions and workplaces

& continuously adapt to the needs of all stakeholders
WE NEED QUALITY, INTENSE WIL PROGRAMS THAT MAKE AN IMPACT.

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Thank you!