

Responding to industry needs for proactive engagement in work integrated learning (WIL): Partnerships for the future

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With increasing global competitiveness and the need for innovative and entrepreneurial employees, industry are seeking graduates with the skills to meet the demands of an uncertain workplace. Work Integrated Learning (WIL), where skill development is scaffolded across the curriculum, is essential to ensure students are work-ready and prepared for the transition from study to work. Robust partnerships with industry are fundamental to enacting a WIL curriculum as they provide the real world perspective. While industry partners are keen to engage with universities to support authentic learning for students, recent reports highlight the need for industry-focussed resources to facilitate optimal outcomes. This research, funded by The Office of Learning and Teaching (OLT), aimed to determine the topics, format and mode of resources that industry perceived as most useful.

The project used a mixed methods approach to ascertain strategies and resources required by industry to support their engagement in WIL. A combination of roundtable discussions, workshops and a survey were deployed to gather data and validate research findings. Outcomes confirmed the topics mode and type of resources industry are seeking. The research will inform national initiatives aimed to enhance the capacity of industry partners to participate in WIL activities.

Keywords: Work integrated learning, partnerships, industry resources, graduate employability

Background

With increasing global competitiveness and the need for innovative and entrepreneurial employees, industry are seeking graduates with the skills to meet the demands of an uncertain workplace (AWPA, 2012; Clements & Cord, 2011). Concern for the capacity of graduates to contribute to growth and innovation has been raised across all industry sectors with recent attention focused on work-readiness graduates in STEM disciplines (Foundation for Young Australians, 2015). Universities are considered integral to providing learning experiences which ensure graduates acquire the capabilities to address the needs of industry thereby ensuring a sustainable Australian economy (Cai, 2012; Robertson & Scott, 2010).

Work Integrated Learning (WIL), where skill development is scaffolded across the curriculum through work-based learning and on-campus learning where students engage with industry (Ferns, Campbell & Zegwaard, 2014), is essential to ensure students are work-ready and prepared for the transition from study to work. Robust partnerships with industry are fundamental to enacting a WIL curriculum as they provide a real-world perspective (van Rooijen, 2011). While industry partners are keen to engage with universities to support authentic learning for students, recent reports highlight the need for industry-focussed resources to facilitate optimal outcomes. This research, funded by The Office of Learning and Teaching (OLT), aimed to determine the topics, format and mode of resources that industry perceived as most useful. Research has validated that employment outcomes are improved for students when WIL is embedded across the degree (Edwards, Perkins, Pearce & Hong, 2015; Smith, Ferns & Russell, 2014).

The National WIL Strategy was developed in response to the growing demand for increased collaboration between universities and industry. (<http://cdn1.acen.edu.au/wp-content/uploads/2015/03/National-WIL-Strategy-in-university-education-032015.pdf>). The Strategy

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partners, Australian Industries Group (AiG), Australian Chamber of Commerce and Industry (ACCI), Business Council of Australia (BCA), Universities Australia (UA) and the Australian Collaborative Education Network (ACEN) recognised that building collaboration between employers and universities is crucial in growing and enhancing WIL in Australia and ensuring a productive and globally-competitive Australian economy (Hodges, 2011).

The challenges and barriers faced by employers when engaging in WIL have been documented in several recent reports (Phillips KPA, 2014; Smith et al, 2014). Issues such as cost, resourcing, support, staff capacity, student supervision, partnering with universities, communication and limited information about WIL are recurring themes. Interestingly, these challenges were cited in the 2009 WIL Report confirming that progress has been limited (Patrick, Peach & Pocknee, 2009). This project endeavors to proactively address some of these longstanding challenges.

Research Aim and Intent

The research consulted with industry partners to ascertain the precise resource topics deemed useful and the most user-friendly mode and presentation of resources to support engagement with WIL.

The deliverables were:

- A. Develop resources for industry engagement encompassing partnership arrangements, best-practice supervision and feedback for optimal student outcomes, and functional Best Practice Guides.
- B. Develop a model for WIL curriculum design and evidencing student outcomes that incorporates best practice WIL informed through consultation with industry and institutional representatives.
- C. Produce a complementary set of Good Practice Guides that outline the role of stakeholders in quality WIL experiences.
- D. Create an interactive and user-friendly website which promotes best practice WIL, facilitates dissemination of strategies, and enhances impact of findings.

This paper reports on the outcomes for the first deliverable, resources for industry engagement.

Methodology

The project used a mixed methods approach to ascertain strategies and resources required by industry to support their engagement in WIL. A combination of a literature review, resource critique, roundtable discussions, workshops and a survey were deployed to gather data and validate research findings. The merging of both qualitative and quantitative data reinforced the findings through a multi-faceted approach (Creswell, 2012). Ethics approval was granted by Curtin University in July 2015.

Phase one

A literature review of national reports published in 2014 and 2015 provided the foundation for phases of the research. Rumrill, Fitzgerald and Merchant (2010) refer to this research methodology as an empirical literature review where characteristically numerical data is ‘collected, created, codified and analysed reflecting the frequency of themes, topics, authors and other attributes’ (p. 400). (Appendix A outlines the publications that were analysed for this purpose). In addition, a critique of 127 WIL resources was undertaken to determine the gaps in industry support. Criteria were developed to ensure a systematic and consistent approach to critiquing the literature (see Table 1) (Ferns, Russell, & Kay, In Press). Common themes were determined which informed subsequent phases of the research.

Table 1: Criteria for critiquing literature

Resource Criteria	Definition
Discipline	Discipline, field of education resource targets e.g. health
Mode	Format of resource is available/accessed e.g. PDF, web-based
Key Element	The component of the WIL process targeted e.g. preparation
Resource Type	Style of the resource e.g. case study, report
Type of WIL	The nature of the WIL activity e.g. placements, simulations
Audience	Audience the resource targets e.g. supervisors

Phase Two

The events listed below enabled rich conversations with a range of stakeholders:

- Industry-based student supervisors from health disciplines, April 2015, 22 attendees
- National Association of Field Experience Administrators (NAFEA) conference, July 2015, 75 attendees
- Criterion conference workshop, August 2015, 12 attendees
- Charles Darwin University, September 2015, 20 attendees
- Health Sciences summit, November 2015, 49 attendees

Participants were invited to respond to questions that explored the challenges for workplace supervisors engaged in WIL.

Phase Three

A survey to capture employers' views was developed based on data gathered in the previous phases. Administration of the survey was online and utilised databases from universities and peak industry bodies to invite employer respondents. Survey respondents who were from diverse industry sectors provided both quantitative and qualitative data including demographic information and their perspectives on the usefulness of topical resources using a five-point likert scale ranging from *Not useful at all* to *Very useful* on the following topics:

- Preparation of students and host organisation staff
- Supervision and providing feedback to students
- Student assessment
- Developing partnerships with educational institutions
- Different types of WIL and their benefits

Figure 1 provides a graphical representation of the research methodology and the sequential nature of the research design. As is typical of mixed methods paradigms, data collection strategies were informed by preceding phases.

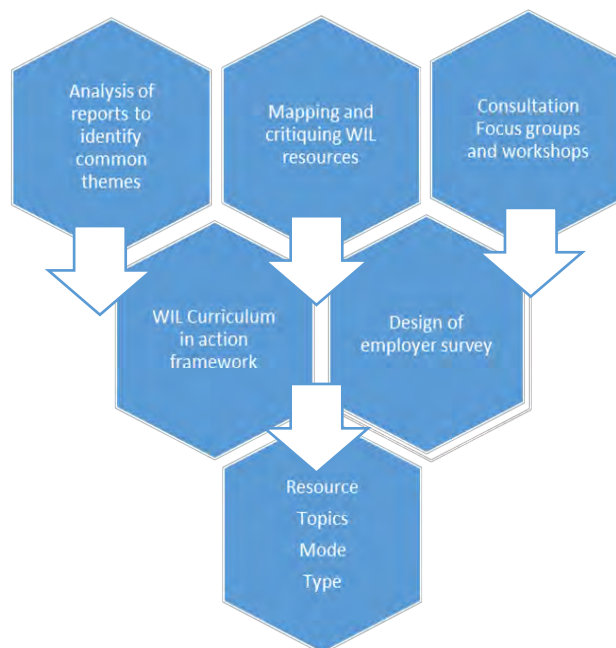


Figure 1: Overview of research methodology

Results

Phase 1: Analysis of contemporary literature

Through analysis of the literature listed in Appendix A, common themes across all publications were identified. These themes included (Ferns et al., 2016):

- Sustainability of the Australian economy and the need for skilled, entrepreneurial, innovative and resilient graduates to sustain global competitiveness
- Partnerships between University and industry/community and clarification of roles are pivotal to a sustainable economy and skilled graduates
- Communication and collaboration between universities and industry
- Need for flexibility in WIL arrangements
- Need for shared understanding of WIL and associated benefits
- Challenges of providing equitable WIL experiences for a diverse student cohort
- Lack of incentives, rewards, time allocation and funding for WIL activities.

Industry are seeking resources which focus on the following topics:

- Supervision and providing feedback to students
- Student assessment
- Preparing students and staff for a WIL placement
- How to engage with universities and develop partnerships
- Agreement and clarity on the term WIL
- Different models of WIL and their benefits

Phase 1: Critique of resources

Of the 127 resources examined, 44% addressed WIL from a broad perspective with 7% specifically aimed at workplace supervisors. Information on the preparation of students for WIL featured prominently with 48% of the resources dedicated to this topic. Seven percent of the resources dealt with assessment, a topic rated highly by employers as an area of concern. Resources tended to be bulky with 33% being guides and 27% reports.

This phase of the research highlighted some areas of concern:

- Resources are difficult to locate as they reside in multiple locations
- Resources on assessment, supervision and partnerships are scarce
- Available resources tend to be large documents where information is not readily discernible
- Examples of case studies and best-practice models of WIL are limited

Through this process, the following solutions emerged:

- Resources need to be available from a common online portal for easy access
- Development of resources focussed on assessment, supervision and feedback processes and strategies for industry partners should be priorities
- Innovative models of WIL need to be made available to facilitate diverse, cost-effective approaches
- Resources should comprise streamlined and coherent information that is concise and readily discernible.

Phase 2: Workshops and focus groups

Themes emerging from the analysis of literature informed the approach used and questions posed in this phase. The in-depth probing facilitated via the forums provided a detailed understanding of the systemic challenges. The inconsistency of partnership arrangements, diverse protocols across institutions and catering to diverse students were raised as challenges for industry.

Phase 3: Survey

The survey attracted 480 respondents with the majority (48%) being from large organisations and 21% with less than 20 employees. Private organisations were represented by 56% of respondents and 26% belonged to government corporations. While respondents came from a range of industry sectors, over 53% came from Health Care and Social Assistance, (22.29%), Manufacturing (16.46%) and Education and Training (14.58%).

Figure 2 portrays resource types and the percentage of respondents who deemed these resources as *moderately useful* or *very useful*.

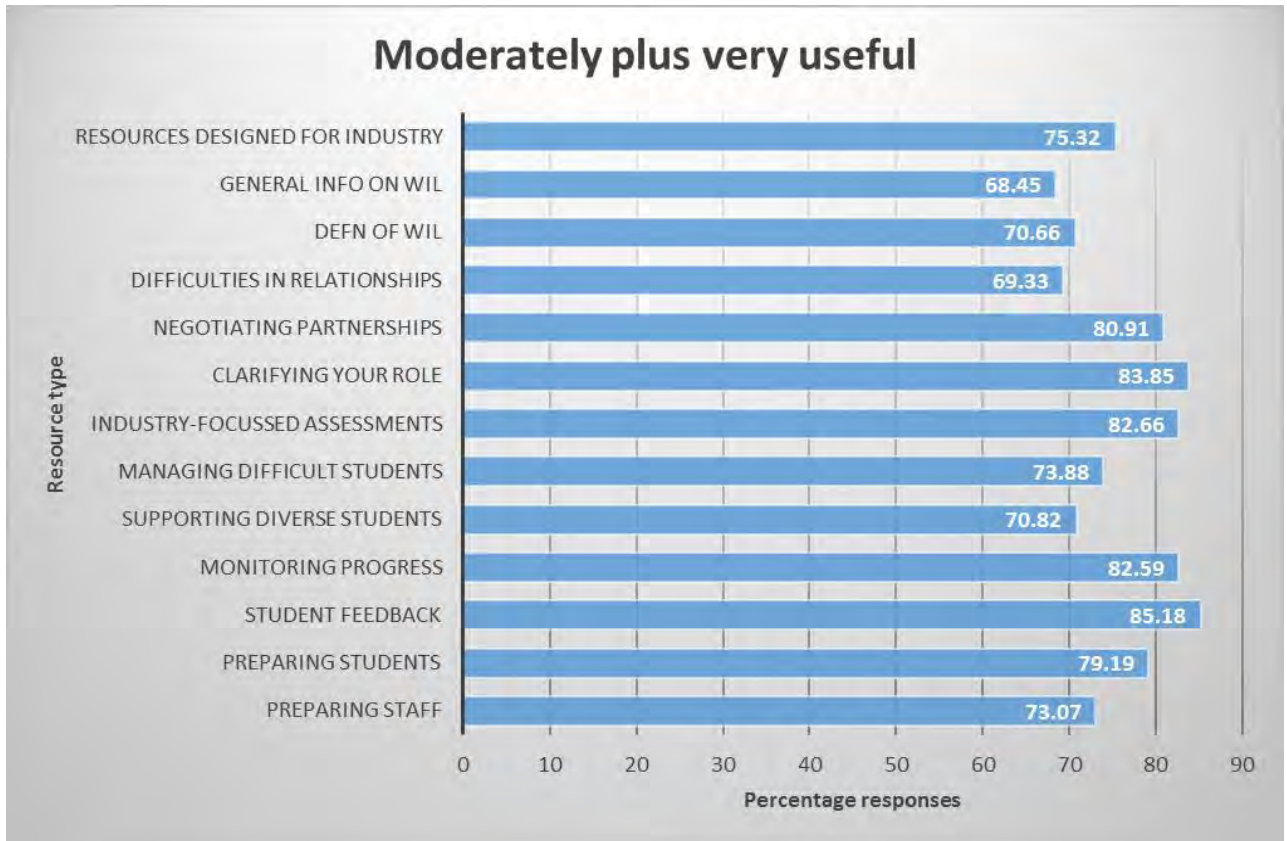


Figure 2: Percentage responses for moderately useful plus very useful

Student feedback, role clarification, industry-focussed assessments, monitoring student progress and negotiating partnerships recorded the highest preference with a score exceeding 80%. Respondents expressed a desire for industry-specific resources with 61% expressing a need for support that had a particular focus on the industry context. Qualitative data captured in the questionnaire complemented the quantitative data with affirmation of the findings.

Figure 3 below shows the preferences for mode in which resources are made available. A central website is clearly preferred by most with over 54% of first preferences opting for this mode. Almost 40% of employers who responded were interested in a blended model where face to face workshops were complemented by online resources. The least preferred modes were CD/DVD (ranked 7th by 113 respondents) and video with 25% of the votes.

Discussion

With the prominence of WIL growing and being on the political radar for multiple stakeholders including government agencies, peak industry bodies, discipline specific organisations, universities and university corporations as evidenced by high profile national reports (Office of the Chief Scientist, 2014; Ferns et al, 2016; Universities Australia, 2014), it is timely to proactively progress initiatives that have been on the agenda for some time. The National WIL Strategy has prompted collaboration among all agencies to establish solutions to the barriers in realising an authentic university experience for students and industry-university partnerships that inform real-world learning through embracing WIL curriculum. The employability of graduates is largely dependent on input from industry partners and the rich feedback they provide to students ensuring currency of industry perspectives. This research has substantiated the need for resources that enhance the capacity of industry to engage in WIL activities. Furthermore, the study has revealed the topics, mode and type of resources industry partners would prefer, thus ensuring maximum benefit and return on investment.

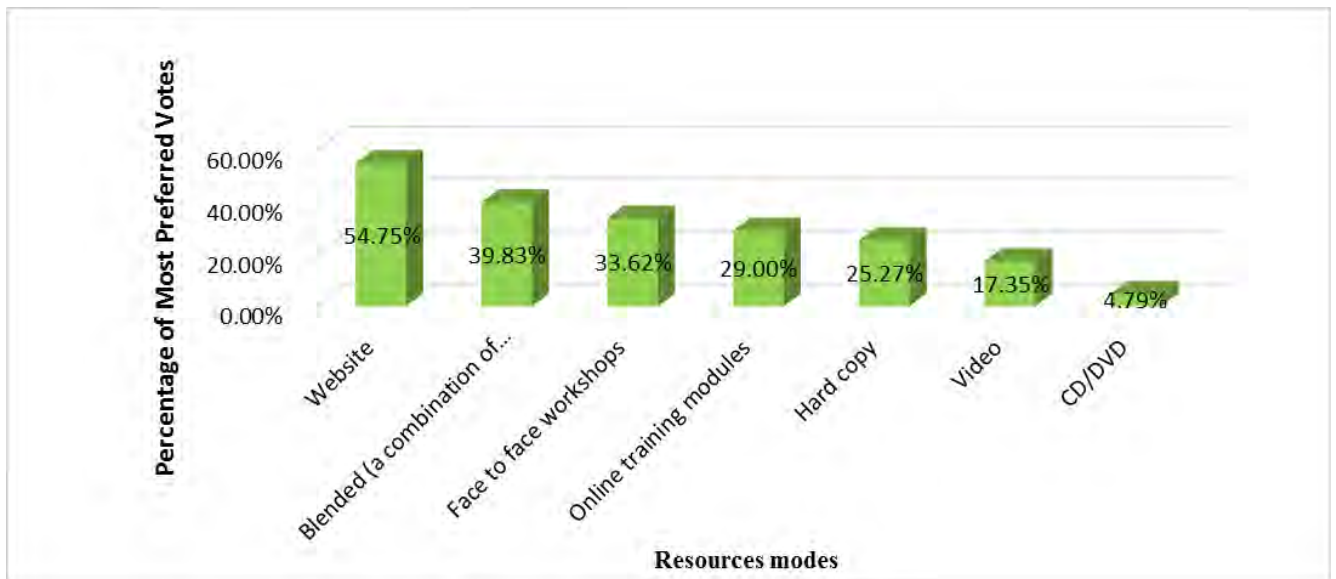


Figure 3: Percentage of most preferred votes across modes of resources

The data reveals that industry partners are seeking resources that support their involvement in designing and implementing assessment of students, supervising students with constructive and timely feedback, and clarification on roles and responsibilities. Assessment designed and enacted collaboratively with university personnel and industry colleagues advances the acquisition of employability capabilities and empowers students to take responsibility for their learning and provides opportunities to network with potential employers (Smith, 2011). Lombardi (2008) articulated the importance of this level of engagement believing ‘The days of the walled-off classroom are giving way to change – a change driven by students looking for practical meaning in an open-ended world’ (p. 15).

Through multiple data collection avenues and appraisal of recent literature, this research has determined the specific nature of resources required by industry partners in order to benefit from their expertise and currency of industry experience in preparing students for the workplace. Industry require concise, clear and accessible information (Phillips KPA, 2014) to fully engage with WIL and optimise the benefits for all stakeholders. As a result of the extensive consultation through the project, a range of well established and new resources were discovered which were previously unknown. This heightened the need to develop a central repository where all resources could be housed for easy access and streamlined communication channels. The National WIL Strategy has raised awareness of the need to consolidate information and establish a single portal which is widely publicised and accessible to all stakeholders. Collaborators in the National WIL strategy are currently working to create a website for all WIL stakeholders from where relevant information and resources will be accessed. To complement this development a communication strategy is also in the process of being developed.

Conclusion

Economic, social, technological and environmental impacts are influencing the workplace globally (Ferns et al, In Press). The rate of exponential change is creating uncertainty in required work force proficiencies for the future (Probert & Alexander, 2015). Universities are increasingly charged with the responsibility of preparing graduates for the world of work but determining the curriculum focus and learning activities is proving a challenge. It is imperative that a university education provides experiences that reflect real-world scenarios. Establishing partnerships with industry whereby they inform curriculum innovation and assessment processes is essential (Foundation for Young Australians, 2015). Partnerships premised on clearly articulated, two-way channels of communication are fundamental to achieving this aspiration (Cooper, Orrell & Bowden, 2010). The outcomes of this project will inform the development of resources and support mechanisms for industry to engage in WIL and enhance students’ employability outcomes.

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Appendix A

Analysis of literature

Title	Author/ Publisher	Year
<i>Australia's future workforce</i>	Committee for economic development of Australia (ceda)	2015
<i>National Strategy on Work Integrated Learning In University Education</i>	Universities Australia, Australian Collaborative Education Network, Australian Chamber of Commerce and Industry, Australian Industry Group, and Business Council of Australia	2015
<i>Progressing Stem Skills In Australia</i>	Australian Industry Group	2015
<i>Work Integrated Learning in STEM in Australian universities: Final Report</i>	Edwards, Perkins, Pearce & Hong, submitted to the Office of the Chief Scientist. (ACER)	2015
<i>The new work order: Ensuring young Australians have skills and experience for the jobs of the future, not the past</i>	Foundations for Young Australians (FYA)	2015
<i>Industry innovation and competitiveness agenda: An action plan for a stronger Australia</i>	Commonwealth of Australia	2014
<i>Work Integrated Learning AWPA Scoping Paper</i>	Australian Workforce And Productivity Agency	2014
<i>Engaging Employers In Work Integrated Learning: Current State and Future Priorities</i>	Phillips KPA: Report to the Department of Industry	2014
<i>The Impact Of Work Integrated Learning On Student Work-Readiness: Final Report</i>	Smith, Ferns & Russell: Report for the Office of Learning and Teaching	2014
<i>Leading WiL: A Distributed Leadership Approach To Enhance Work Integrated Learning: Final Report</i>	Patrick, Fallon, Campbell, Devenish, Kay, Lawson, Russell, & Tayebjee: Report for the Office of Learning and Teaching	2014
<i>Employment, Work Placements & Work Integrated Learning of International Students In Australia</i>	International Education Association Of Australia	2014
WIL in Curriculum HERDSA Guide	Ferns (Editor)	2014