

Enhancing employment outcomes for psychology graduates: Developing a taxonomy of work-integrated learning

ANNABELLE M. NEALL¹

OSCAR COONEY

University of Queensland, Brisbane, Australia

MICHELLE L. OPPERT

University of Queensland, Brisbane, Australia

University of South Australia, Adelaide, Australia

Despite a growing demand for mental health/psychological support in the Australian community, there is a deficit of appropriately trained professionals, due in part to psychology graduates who are not afforded meaningful applied learning experiences during their degree. Systematic integration of authentic WIL into undergraduate psychology degrees may offset this lack of industry exposure, but such learning is scarcely implemented within current curricula. The proposed research sought to address this gap in the undergraduate curriculum by constructing a tangible framework of work-integrated learning (WIL) opportunities to enrich student education and preparedness for the workforce. Semi-structured interviews (n = 36) were conducted with four key stakeholder groups to elicit the current state of WIL in undergraduate psychology curricula and to generate industry specific WIL opportunities that will enhance the skillset and abilities of psychology undergraduates, heighten their psychological literacy, and endorse their transition to an increasingly diverse workforce.

Keywords: Taxonomy, undergraduate psychology, employment, Australia

Australian psychology graduates are a unique allied health cohort. Following their three or four-year undergraduate program, which focuses on understanding and modifying human physical and emotional behavior and cognition, alumni are primed to enter a wide range of industry sectors, including health promotion, marketing, human resources, coaching, policy, and community services (Australian Psychological Society, 2020). Despite their breadth of knowledge and skills, psychology graduates often struggle to gain meaningful employment following degree conferral. The Australian Government Department of Education, Skills and Employment (2020) reports that only 61% of graduates possess full-time employment in the general labour market (i.e., all jobs irrespective of psychology-relatedness) in the 12 months following graduation; one of the lowest full-time employment rates of all disciplines.

Little research to date has explored the barriers between psychology undergraduate programs and employment outcomes (Schweinsberg et al., 2021); however, one possible limitation is the way undergraduate degrees are structured. Specifically, few opportunities currently exist for psychology students to practice what they learn during their time at university. Students are not required (according to accreditation standards) to undertake an industry placement, complete clinical simulations, or engage in fieldwork. Additionally, there are few opportunities for internships prior to a post-graduate degree. The result is theoretical and hypothetical learning programs that do not fully prepare graduates to solve complex and multi-faceted problems outside an academic context.

Work-integrated learning (WIL) has been shown to aid the development of a range of professional and personal outcomes for graduates, including increased work readiness and employability via professional skill development, theory-to-practice application, and identity and citizenship (Sachs et

¹ Corresponding author: Annabelle Neall, a.neall@uq.edu.au

al., 2017). Thus, the integration of WIL into existing psychology curricula may be key to bridging the transition from academic learning to real-world practice.

This study explores how WIL could be implemented into Australian psychology undergraduate programs, and the potential impact of this curricula change on employment outcomes. Drawing on the lived experiences and expertise of industry staff who employ psychology graduates, recent psychology graduates, accrediting bodies for Australian psychology programs, and experts in WIL, we sought to identify activities, structures, and initiatives that allow and support work-integrated learning across the three (or four) year degree, in an economically feasible way.

Psychology Degrees in Australia

Along with management and business, psychology is among the most studied degrees in Australia, comprising over 20% of higher education enrolments each year (Australian Bureau of Statistics, 2019). In line with other allied health training schemes, individuals studying psychology undertake a three-year foundational degree (i.e., Bachelors) and, for a select few, an additional fourth year of research-focused study (i.e., Honors). Unlike other allied health training programs however, the three nor four-year psychology degree is sufficient for registration as a psychologist in Australia, leaving psychology graduates as the only allied health group unable to 'practice under their namesake' directly after completing their undergraduate degree (Reupert et al., 2018). To practice as a general psychologist, individuals must complete an undergraduate degree (with Honors), plus postgraduate qualifications (i.e., an accredited 2-year Masters degree or board accredited supervised internship) (Psychology Board of Australia, 2022). However, registration pathways are dwindling (i.e., the 4+2 pathway was retired in June 2022) and admission of students into post-graduate (Masters) programs is limited (i.e., 5-25 per course per year) (APS College of Counselling Psychologists, 2021), leading to a funnel neck of graduates without official accreditation and poor recognition among employers.

While undergraduate psychology programs provide graduates with psychological understanding, research capability, critical thinking, communication skills, and other employable attributes through the scientist-practitioner model (Cranney et al., 2009), the theoretical knowledge acquired through undergraduate study is generally only applied practically at the postgraduate level (Goedeke & Gibson, 2011). In line with the scientist-practitioner model shaped by psychology education in Australia (O'Gorman, 2007), postgraduate psychology students undertake a significant placement load, comprising a minimum 1000-hours practicum and skills training (Australian Psychology Accreditation Council [APC], 2019). Additionally, there is a stronger focus on industry engagement, especially in fields of applied psychology, to prepare postgraduates for specialized roles. However, no such requirements are mandated for undergraduates, where degrees are focused on broad knowledge acquisition of the scientific discipline of psychology (APAC, 2019). Over 95% of psychology graduates do not continue into postgraduate study, thus, there is a growing population of psychologically literate graduates with impeded work readiness, the general and discipline-specific personally orientated skills that reflect their preparedness for a successful transition from student to an employee (Caballero & Walker, 2010; Schweinsberg et al., 2021).

Employment Outcomes for Psychology Graduates

National data exemplify the discrepancy in work readiness for psychology graduates compared to their allied health counterparts. Specifically, while 84% of occupational therapy (Fay & Adamson, 2017), 85% of dietetics (Heafala et al., 2021), 75% of social work, and 96% of physiotherapy graduates (The Social Research Centre, 2021) find full-time employment four months after graduating from their

undergraduate degree, only 64% of graduates from a 3-4 year psychology program obtain full-time employment during the same period (Hamilton et al., 2018; The Social Research Centre, 2021).

A lack of professional identity and poor awareness of graduate attributes are both suggested reasons for the employment discrepancy. However, the most identified catalyst is an insufficient level of psychological literacy. Psychological literacy is the ability to apply psychological skills and knowledge to real-life contexts, often to meet personal, professional or societal needs (Cranney & Dunn, 2011; Morris et al., 2013). In addition to communicating effectively, respecting diversity, and being insightful and reflective, psychologically literate citizens can apply key graduate attributes: knowledge of psychology, scientific research methodology, critical and creative thinking, and acting ethically and professionally (Cranney & Dunn, 2011; Cranney et al., 2011; McGovern et al., 2010; Morris et al., 2013; Trapp et al., 2011). Findings from Morris et al. (2013) suggest the gap in psychological literacy may not result from students' perceived awareness and importance of moderately high graduate attributes. Instead, Hamilton et al. (2018) propose education systems' attention should highlight the translatable graduate traits desirable by industry and develop graduates' capabilities required to navigate and thrive in an evolving occupational landscape. The Bryan et al. (2011) study highlights the structural obstacles to incorporating a greater focus on work readiness. Current psychology curricula were mapped against the three domains of experiential learning (i.e., teaching-research nexus, practice-based, and service learning), however, only evidence of a teaching-research nexus was found in the evaluated psychology programs (Bryan et al., 2011).

Schweinsberg et al. (2021) outline that while a focus on work readiness research in the psychology field is growing, the literature remains sorely lacking. To address the significant gap in graduate work readiness, programs must apply methods used in similar degrees with greater employability success, with the primary aim to ensure the link between graduate attributes and work readiness skillsets is tangible and easily accessible (Schweinsberg et al., 2021). The need for increased focus on work readiness is most pressing when considering the growing demand for community mental health support and the high incidence of graduates under 25 years old finding employment in unrelated occupations such as hospitality or sales (Hamilton et al., 2018; Reupert et al., 2018; Schweinsberg et al., 2021). To simultaneously address the growing demand for psychological support and enable a more robust transition from university to the workforce, it is imperative that students can appreciate, understand, convey, and implement the knowledge and competencies acquired during their undergraduate study in professional settings (Hamilton et al., 2018). A method increasingly recognized as a critical strategy for developing student work readiness in higher education through nontechnical skill development, enhanced self-awareness of capabilities, improved decision making and teamwork, and practical problem solving is WIL (Helyer & Lee, 2014; Jackson, 2019; Rowe & Zegwaard, 2017).

Work-Integrated Learning

The term WIL encapsulates numerous practice-based and experiential learning models (e.g., service learning, cooperative education, work-based learning) and activities (e.g., simulations, clinical placements, internships, fieldwork, volunteering, project-based work, practicums) (Rowe & Zegwaard, 2017). To improve work readiness in students, WIL must be authentic, include quality supervision and feedback, feature robust industry partnerships, involve active engagement, and provide adequate preparation and debriefing activities for participating students (Ferns et al., 2015; Helyer & Lee, 2014). While vocational degrees (e.g., nursing) have experience successfully implementing various WIL activities, WIL incidence within theoretically based degrees, such as psychology, is comparatively uncommon (Hamilton et al., 2018; Reddy & Moores, 2006). However, recent developments in the

evaluation and integration of WIL initiatives and programs in psychology are emerging (Hamilton et al., 2018; Marrington et al., 2019), supported by literature highlighting the positive impact of effective WIL implementation on developing employability when implemented during enrolment in higher education (Hall et al., 2017; Messum et al., 2017; Reddan & Rauchle, 2017).

Current Study

Beyond a handful of workplace-based learning courses, there is seldom research, evidence, or dialogue promoting the embedment of industry projects, work simulations, and authentic learning opportunities for psychology undergraduates (Auburn et al., 1993; Golding et al., 2019). Accordingly, this study sought to address a key gap in the undergraduate curriculum for one of the largest student cohorts in the Australian higher education sector (i.e., psychology) by constructing a tangible framework of WIL opportunities to enrich student education and preparedness for the workforce (i.e., a taxonomy). Specifically, interviews with key stakeholder groups (graduates of the undergraduate programs, WIL expert staff, industry leaders and program accreditation staff) elicited data on what kinds of WIL are currently employed in both undergraduate psychology and complementary degrees, the challenges and considerations of implementing WIL into large-scale undergraduate courses, how a lack of applied experience during university studies hinders entry, and success in various industry sectors, and where WIL fits within current and future Australian accreditation standards. This data were analyzed and key activities and experiences for WIL were extracted and shaped against known examples. We then positioned the opportunities on a grid against two principles for meaningful learning: task authenticity and industry proximity (Oliver, 2015). Constructing and distributing a detailed and specific taxonomy of WIL opportunities for psychology students will provide a) a fine-grained and activity-anchored plan for universities to promptly amend the design and delivery of critical subjects in the curriculum to enhance skills and attributes required for a broad range of graduate-level roles and duties and b) improve psychological literacy within psychology graduates. Additionally, this research lays the first stone for a larger program of research designed to enhance the capabilities and competencies of psychology undergraduates.

METHOD

Four main stakeholder groups were identified and recruited for the study, each offering a unique perspective on how and where existing curricula could be modified to incorporate WIL opportunities.

Stakeholder Groups

Psychology graduates

Recent graduates of three and four-year Australian psychology undergraduate programs were invited to participate in the study. All participants were aged 18 years and older and were currently employed or seeking employment in a field related to their degree. Graduates were recruited through university alumni pages on Facebook, and via advertisements positioned on the research team's professional and personal social media platforms (i.e., Twitter, Facebook, LinkedIn). Psychology graduates and one psychology-social work graduate ($n = 12$) from five Australian universities participated in tele-interviews. The average age of the interviewees was 24.7 years, and nine of the 12 participants were female, reflective of the current gender classification in Australian psychology programs (Workplace Gender Equality Agency, 2019). Four participants had completed the three-year undergraduate program, while the remainder completed four years of study (i.e., Bachelor of Psychology plus Honors).

Industry leaders

Employers and leaders from industry sectors most likely to hire psychology graduates were recruited for the study. Requests for participation were submitted through official organizational channels (i.e., general enquiry forms on the organizational website). Individuals who responded to the call for participation were assessed for suitability (i.e., working directly with psychology graduates) and were then booked in for an interview. A total of 11 interviews were conducted (female = 7) from medical and community health services ($n = 5$), government departments ($n = 3$), disability support services ($n = 2$) and psychosocial support organisation ($n = 1$).

Work-integrated learning staff

We also sought the perspectives of higher education staff who specialize in WIL from complementary fields of study (allied health, management, education). Participants were identified by searching the staff database of 20 Australian universities, and the Australian Collaborative Education Network executive board and were invited to participate via a personalized email. Eleven interviews were conducted with WIL staff (female = 10) from nine Australian universities. Staff specialized in various industries (psychology, hospitality, business, design, science, health sciences, medicine, early childhood education, journalism) to harness ideas and guidance on what kinds of WIL would be suitable for a psychology degree and considerations for integration.

Australian Psychology Accreditation Council staff

In Australia, all recognized psychology programs are assessed and endorsed by the Australian Psychology Accreditation Council (APAC). To understand what kinds of learning are currently mandated, required and recommended in psychology undergraduate programs, a senior representative of the Accreditation Council was interviewed ($n = 1$).

Study Design

The uncharted and ubiquitous nature of the research question problem required an exploratory, qualitative approach, informed by rich, contextual data (Given, 2008). Accordingly, data were collected via semi-structured interviews, informed by the approach outlined by Rowley (2012). A unique and relevant set of interview questions was formulated and delivered to each stakeholder group, but all aimed to address key queries such as:

- What kinds of WIL are currently embedded within undergraduate psychology programs?
- What knowledge, skills, abilities, and other characteristics are psychology graduates missing when they enter the workforce?
- What kind of learning experiences or opportunities would benefit psychology students before entering the workforce?

Procedure

Ethics approval was sought and granted before participants were contacted or data collected (Approval number: 2020002713). All participants were provided with an information sheet that clearly outlined the requirements for participation, along with a consent form. Interviews did not commence until participants provided written consent authorizing their participation and use of their data. All participants were offered a \$30 Gift Card as an honorarium for their time. All interviews were conducted remotely (e.g., telephone, videoconference) to account for social restrictions due to COVID-19. Interviews were audio-recorded with consent to ensure accurate transcription, which was

undertaken by a third-party service. Interviews were between 18-72 minutes, with an average of 40 minutes.

The text-based interview data were analyzed using thematic analysis to identify and draw out the primary themes. Thematic analysis identifies and explores salient, meaningful themes, underscoring how they relate to the primary aims of the present study. The transcribed interviews were analyzed through several coding cycles in NVivo 12 software. Braun and Clarke's (2006, 2013) method of thematic analysis was used and included the following steps: a) transcription; b) reading and familiarization with data; c) coding across the entire data set; d) identifying themes; e) reviewing themes by producing a thematic map; f) defining and naming themes, and g) finalizing analysis.

It should be acknowledged that within the interviews, some individual ideas or experiences stood out as intriguing and captivating, however, the analysis method allows for salient, meaningful themes from the segments and the group of participants as a whole to answer the research questions.

FINDINGS

Three core themes are outlined and discussed, tabulated to illustrate salience of findings, and supported by quotations from interviewees. Each theme is represented by the views of the four stakeholder segments (i.e., psychology graduates, WIL staff, APAC staff, and industry leaders/hirers).

Lack of Applied Experience for Undergraduate Students

A principal issue discussed among all stakeholder groups (but primarily psychology graduates) was a lack of WIL opportunities with industry or broader applications during the undergraduate degree program (see Table 1 for an overview of themes and illustrating quotes). A symptom of this lack of exposure, particularly for graduates who do not enter Masters or PhD programs, was confusion and uncertainty about what jobs they are eligible and suitable for upon graduation, and a sense of dissatisfaction with their undergraduate experience as a result:

You could do a psych degree and then go and just become a manager somewhere or – you know – like it kind of sets you up to do anything, but the big question is always, like, well, what? Like, people are... it can take you anywhere and you're like, but can you just give me a list? (PsychGrad#12)

Several psychology graduates noted that existing WIL experiences were 'too broad' (i.e., videos in class, guest lectures, or the opportunity to do a WIL thesis), and lecturers often failed to make the connection between the learning experience and its real-world application:

Sometimes communication, like you do a lot of essay writing, and we do a lot of report writing, but, and that's all really, really good. But you know, sometimes it's really good to know like how to talk to people, who - I don't know how to word this - like you know, who are in crisis. I mean, we do the counselling courses, but you don't really get too much crisis training or more just some of those communication skills like what's it like to actually work in the field. (PsychGrad#6)

Industry hirers noted similar perspectives, many remarked on the strengths of psychology graduates comparative to other cohorts, but recommended improved applied experiences to enhance skills and capacity for collaboration with others outside of the field of psychology:

The problem that psychology graduates get when they leave university is a lack of opportunity to utilize the skills that they've already learnt. They've spent three-four years at university, learning about psychological science or a diploma in counselling and they've built very, very strong skills. However, where they can use those skills is the problem. (IH#10)

The lack of awareness around translation of practical knowledge and therapies into real world setting and a lack of maybe understanding of multidisciplinary kind of how that might work as a team. I have had – we've had a psych grad recently very outraged that our senior social work was doing DBT because they don't understand that other disciplines can do therapies. (IH#8)

TABLE 1: Lack of work-integrated learning during the undergraduate degree and its impact on employability.

Theme	Stakeholder Group	# of Participants	# of Comments	Illustrating Quotes
Lack of WIL opportunities within degree	Psych graduates	10	20	"I didn't have any... industry experience at all. Like, you just have no idea what you're walking into as a psychologist." PsychGrad#10 "I got no real-world exposure at all. I got an introduction to a variety of different potential streams of psychology". PsychGrad#9
Lack of knowledge about degree translation to employment	Psych graduates	9	17	"I didn't really know coming out if I was qualified for anything because they only talked about Postgrad that you have a qualification after Postgraduate studies". PsychGrad#7
Does not prepare graduates for future study	Psych graduates	8	14	"I didn't realize how competitive [entry into] Masters was, to start with. And, so I thought, there are other pathways that I could potentially go down, such as internships. Found out that that was really, really difficult to get into too." PsychGrad#1
WIL is too broad and not connected to learning	Psych graduates	7	13	"So, we, in like the Clinical elective some Clinical Psychologist would come out and talk about their therapy or a book, but they would never give their – they didn't say how they got from A to B". PsychGrad#7

Note. Number of Participants and number of Comments are illustrative of salience found within the theme.

Benefits of Barriers to and Considerations of Implementing WIL in Psychology Undergraduate Degrees

Embedding more WIL into degrees was universally supported among the stakeholder groups, however, several challenges and considerations were also highlighted (see Table 2 for a breakdown of sub-themes and corresponding participant quotes). Among the identified benefits, WIL Staff discussed how greater WIL opportunities would not only assist with the translation of theory into practice but also help graduates feel more confident in seeking employment by articulating their broad range of KSAOs to future employers:

While you might not get a job as a chemist or a physicist, chances are you're not, or a historian, or a philosopher, if you go onto SEEK, you're not going to find a job that's directly related today. And you've actually got to rearticulate and sell yourself around different skill sets and different capabilities. (WILStaff#5)

Additionally, industry hirers discussed how meaningful and structured experiences in workplace settings would allow students to build their skills, such as working with other allied health colleagues and navigating broader health and government systems.

I think it would be excellent if they could have some exposure, some kind of placement to be working with clients and working within a multidisciplinary team because a lot of people will be working with [Department] or what not and just not understanding how that works. Because I feel like they are at a disadvantage compared to other graduates from different disciplines not having that experience. (IH#9)

Over half the WIL staff discussed the importance of appropriate support when seeking to embed WIL initiatives. Specifically, they noted that WIL programs require strong and genuine support from the top of the university faculties and departments (e.g., deans, course coordinators, administrators), who should emphasize the true value of these opportunities. Adequate resources (e.g., time, staff, relationships with industry) are also vital to authentic learning experiences:

The second part of that, which is really important with WIL programs, is socializing WIL. So, by socializing WIL, I mean building buy-in from all kinds of stakeholders, particularly within the university. So, I'm not talking about industry engagement here; I'm talking about building buy-in through the university, so, you know disciplines understand the importance of WIL, they understand how it works and so on. (WILStaff#8)

WIL staff also emphasized the role of industry in supporting students by constructing appropriate placement roles, providing co-design opportunities and adequate feedback to the student, and identifying key skills and blocks of knowledge that students must hold before entering organizations:

I think that we should have more industry involvement in the kind of design of our courses and degrees, more consultation with what the employers, the big employers, and just more engagement throughout, and not in a kind of a client and provider relationship either, like a genuine partnership. (WILStaff#3)

TABLE 2: Benefits barriers and considerations of work-integrated learning in psychology degrees.

Theme	Stakeholder Group	# of Participants	# of Comments	Illustrating Quotes
WIL builds confidence	WIL Staff	7	6	"It doesn't need to be structured feedback all the time, and they're getting feedback from their peers, their companies or their mentors and the academic and everyone else. So in terms of the competency piece, we try to reinforce that and talk about it, along the way again. So hopefully by the end of it they do know, and they can articulate, I guess.." WILStaff#2
Perception that WIL would enhance employment outcomes	Industry Hirers	9	28	"Something a bit more applied, kind of along the way I think would be handy, particularly for the students so they'd feel a bit more ready. Because that's kind of feedback I've had from all the students, is they don't know what they do with their degree if they can't get into post graduate studies." IL/H#1
WIL makes students more attractive (for hire)	Industry Hirers	5	6	"So, if you've got something that is eye-catching in, whether it's in NGOs, non-for-profits, volunteering, community engagement, and if you can sell that to me, as an employer, as either it speaks to your character as a person or speaks to the kinds of things you are passionate about, then that can only be an asset." IL/H#3
Need for support from industry	WIL Staff	7	11	"...you've got access to this number of industry partners, the next thing that you need to do is think about ways that you can actually co-design an opportunity with those industry partners, even potentially think through how you can invite a student into that co-design as well." WILStaff#11
Need for support from universities	WIL Staff	6	10	"They need support from the top actually and I think there is a tendency to even though WIL is very popular, and universities are implementing a lot of the WIL programs, a lot of senior managers don't actually understand what's required." WILStaff#10

Note. Number of Participants and number of Comments are illustrative salience found within the theme.

Opportunities for Work-Integrated Learning in Psychology Undergraduate Programs

All stakeholder groups proposed ideas to better prepare graduates for work or the use of their degrees (see Table 3). Psychology graduates emphasized the need for practical components such as placement, exposure to psychology jobs, or a platform like a newsletter to inform students on WIL opportunities, even if they are not integrated into the degree. Several psychology graduates also drew attention to the value of counselling and interpersonal skills (e.g., empathy, listening, people skills, cultural awareness, guidance of others) and taking on volunteering roles in gaining and thriving in various

roles. Additionally, to improve knowledge of the degree, more transparency on the pathway to becoming a registered psychologist was perceived as beneficial:

I would say, I think part of the preparation for the workforce is understanding from the get-go the requirements for entering the workforce as a psychologist. So, I would say, I mean first and foremost just sit them down first year or whatever and just be like hey this is the progression of what you're looking like the next 4 to 8 or whatever years is going to look like. (PsychGrad#8)

I think for my job at Parliament you know, I think that really focuses a bit more on people skills. And I think that's one sort of big thing I think coming out of psychology I think, I'd like to think a lot of psychology graduates have high emotional intelligence and I think that's one thing that has served me incredibly well in every single one of my roles. (PsychGrad#11)

For industry hirers, WIL experiences that broadened students understanding of organizational and public health systems, along with the ability to work in a multidisciplinary context, were viewed most importantly and favorably:

So, you know a good, an impressive graduate at interview will sort of be aware well you've not studied this but I'm aware of where data fits and what it can do and the need to go to stakeholders and you know use other sources of data and link data and really sort of get that sort of broader sort of high-level perspective. (IH#2)

Finally, WIL Staff charted a spectrum of WIL opportunities beyond placements, including using internal and external career services, more lectures and workshops connecting theory to real-world examples, communication classes, and international exchanges. Ten WIL staff accentuated the need for early embedment of WIL experiences, starting from the first semester of study and gradually scaffolding to more complex and integrated opportunities:

My philosophy and what I am trying to champion at our institution is that Work-Integrated Learning, a variety of Work-Integrated Learning experiences, so placement and non-placement, need to be scaffolded across the degree, and this includes from first year, but obviously with meaning. (WILStaff#11)

Taxonomy of Work-Integrated Learning Opportunities for Psychology Undergraduates

Drawing on the examples and suggestions of all four stakeholder groups, a taxonomy of WIL opportunities for psychology undergraduate students was constructed (see Figure 1). The taxonomy maps a broad range of activities that tap into the two "principles for effectiveness ... that relate to employability": task authenticity, how closely a task resembles professional level challenges and proximity to industry, how closely the context resembles a professional environment (Oliver, 2015, p. 61-62).

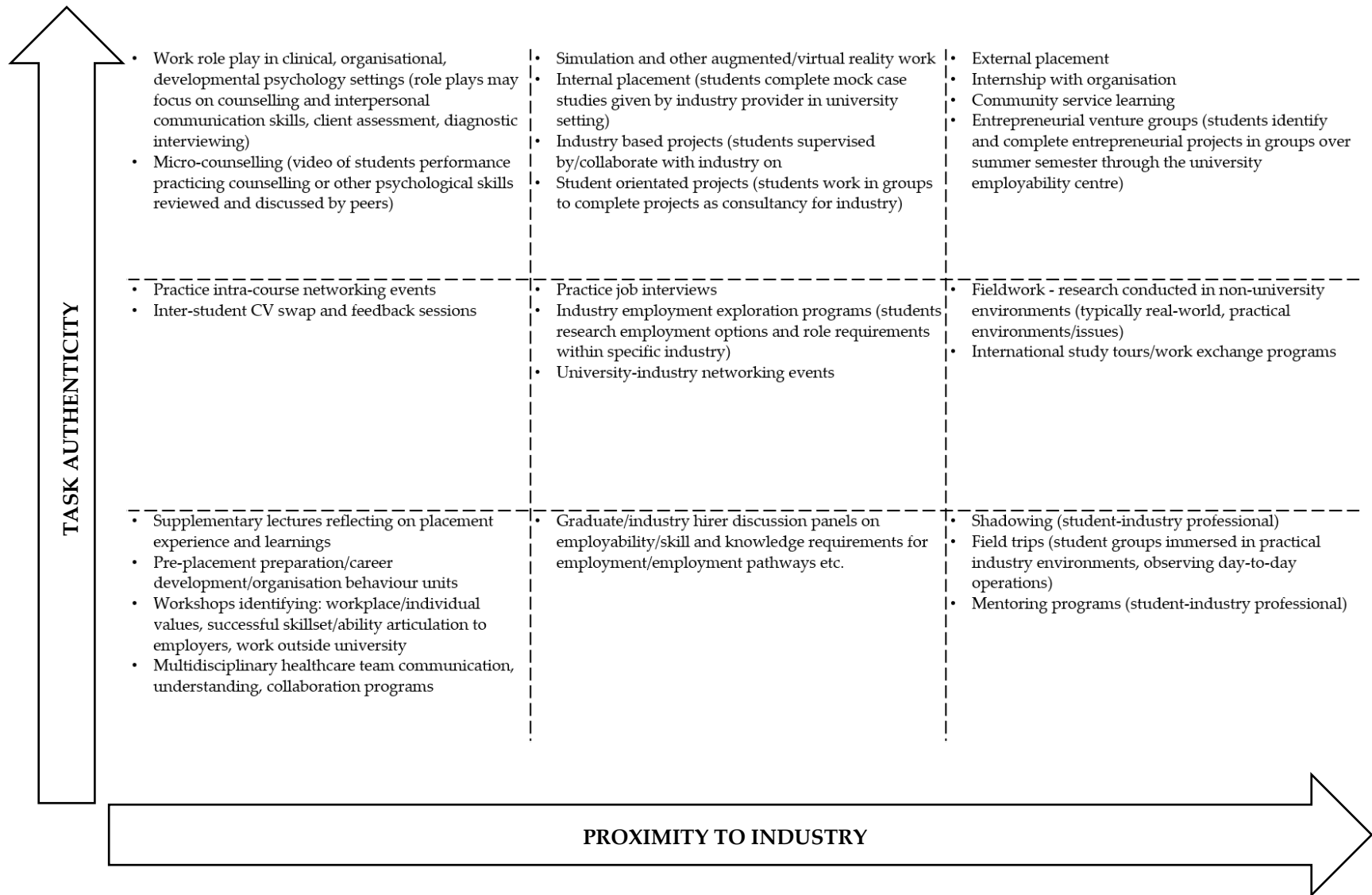
Many of the WIL activities are implementable in a variety of formats. For example, placement, discussion panels, interviews, and role-play may all be conducted virtually, practically and on an individual or group level depending on the resources available to the university and goals of the WIL activity. In particular, the increased activity implementation flexibility due to the emergence of digital WIL presents an opportunity to achieve similar results with reduced risk and resources. With the general implementation flexibility in mind, activities have been grouped according to factors potentially relevant to WIL practitioners.

TABLE 3: Opportunities for work-integrated learning in psychology undergraduate degrees.

Theme	Stakeholder Group	# of Participants	# of Comments	Illustrating Quotes
Perceptions of how WIL could be integrated	Psych Grads	7	11	"I think one thing that I think is really important that they need to look at in undergrad psychology, is giving us the chance to do our practical component to our degree." PsychGrads#10
Potential opportunities	WIL Staff	8	22	"So, if a teacher is teaching something, a particular topic in psychology, well then, they have the responsibility to translate that particular topic into practice for their students and provide reflective opportunities for them to take meaning of what this looks like for themselves and what this might look like for them as practitioners in the future." WILStaff#11
Examples of WIL	WIL Staff	9	17	"So, our program is mainly placement based. Before the students do placement which they get academic credit for, they do a preparation unit which incorporates career development and organizational behaviors but also equips with skills and tools, basically to go out and source their own internship [and] placement, and then sort of gain some knowledge about how they are going to be able to sort of navigate some organizational challenges when they are in their placement as well." WILStaff#10
Volunteering as a self-pursued WIL opportunity	Psych Grads	9	16	"I definitely think volunteering was a huge thing. Even when I had thought I was going to be a psychologist, I remember someone telling me, like, if you want this bad, you've got to volunteer. You've got to start now. Like, you've got to volunteer for the next 5 years of your life, basically. To show people that you're committed to this career path because good grades don't necessarily mean that you're going to get a job" PsychGrad#4
Increasing counselling skill education	Psych Grads	6	8	"And I think that's one sort of thing I think coming out of psychology I think, I'd like to think a lot of psychology graduates have fairly high emotional intelligence and I think that's the one thing that has served me incredibly well in every single one of my roles." Psych Grads#11

Note. Number of Participants and number of Comments are illustrative of salience found within the theme.

FIGURE 1: Taxonomy of work-integrated learning opportunities for undergraduate psychology students.



DISCUSSION

To date, there has been little research or implementation of WIL in undergraduate psychology training programs, resulting in prolonged and unsatisfactory transitions from university to employment (Borden & Rajecki, 2000; QILT, 20121). To address this fundamental gap in undergraduate curricula, this study identifies the current state of WIL in psychology programs, the impact of limited applied learning experiences on employment transition, and points of intervention within the current curriculum structure where small- and large-scale WIL activities, structures and opportunities can be implemented. The aim of the present study involved developing a WIL taxonomy to support current and future undergraduate psychology students successfully enter into meaningful employment. The findings offer both theoretical reasoning and tangible solutions for enhancing and augmenting existing university subjects with a theoretical, conceptual, or notional structure, highlighting the importance of WIL for a cohort of graduates struggling to make a successful transition to field-specific employment. Importantly, and unique to this study, each stakeholder group identified ways to improve psychological literacy. First, and most pertinently, psychology students must be exposed to a more systematic program of WIL throughout their undergraduate psychology degree. Encouragingly, discussions with industry hirers and WIL Staff dispelled the notion that WIL be limited to exposure to therapeutic environments (i.e., placement or internships in private practices, hospital settings, community health centers). Rather, great value is to be gained by incorporating internal and external learning experiences that explicitly aid translation of degree-specific knowledge and content into core role competencies and proficiencies, and enrich students' understanding of where such translation can occur (i.e., the range of available career opportunities) (Drewery & Pretti, 2021).

Second, and concurrently to integrating WIL practices, psychology program leaders should implement educational initiatives for current and graduating students to improve psychological literacy (Conroy et al., 2022). Such schemes could take the form of (a) educating students about clear, feasible, and representative career pathways for psychology graduates (including talks from industry leaders seeking the strong set of people-orientated skills that psychology graduates possess), (b) more diligently emphasizing the importance WIL and its connection to enhanced employability (including forms of self-led and acquired WIL, e.g., paid work, volunteering) through alumni events and career nights that enable graduates to ratify how their early WIL experiences generated long-term employment in their desired field, and (c) developing guides and programs that enable graduates to speak to how the knowledge and capabilities acquired during their undergraduate study address current business and practice needs.

Implications for Practice

Constructing and distributing a detailed and specific taxonomy of WIL opportunities for psychology students provides a fine-grained and activity-anchored plan for universities to promptly amend the design and delivery of key subjects in the curriculum to enhance the skills and attributes required for a broad range of graduate-level roles and duties. For students not eligible or interested in post-graduate studies, participating in a rich range of WIL activities listed in the taxonomy offers crucial experiences that could improve skills and knowledge, increase work-readiness and aid a successful transition to employment. For example, Zegwaard and Coll (2011) report that graduates who had undertaken a work placement made better informed decisions about their career direction and felt more certain of their career choices. Jackson and Collings (2018) note a small but significant difference in employment outcomes in the first four months following graduation for students who elect to undertake an industry placement during their undergraduate studies. Additionally, for students who do continue on to post-

graduate studies, engaging with WIL provides a foundation to draw upon as they begin their placement programs and may even aid admission into these highly competitive programs.

However, it is essential to understand that the progression of WIL activities along both axes generally requires increased resources from universities regarding activity design, preparation, implementation, and review. Increasing proximity to industry is the harder of the two primary activity characteristics to achieve. Universities must cultivate and maintain strong relationships with industry partners without affecting industry productivity or both parties' reputation (Ferns et al., 2016). Coordinators must also develop activities that provide valuable WIL experience to students at different stages during the degree while adhering to thorough health and safety rules (as students will often work in external environments outside university control) (Fleming & Hay, 2021).

While all activities with low proximity to industry can be reasonably implemented by the university alone, requiring fewer resources and planning, the responsibilities associated with activities featuring more proximity to industry requires increasingly greater experience and effort. Consequently, universities attempting to embed more WIL activities in psychology undergraduate programs should look to professionals experienced with WIL in higher education. Participant WIL domain experience indicates that while psychological WIL practitioners may be much rarer than those in other fields, many WIL practitioners design and implement programs across a range of domains and may therefore perform well in the role. The responsibility of any individual or group attempting to provide more WIL opportunities to psychology undergraduates includes the development of industry relationships; activities requiring medium and high proximity to industry are challenging to successfully implement without investment from industry partners (Edgar & Connaughton, 2014). Further, a structured progression of WIL activities is suggested to increase task authenticity and industry proximity in concert with current degree course progression.

Strengths Limitations and Future Research

This study is one of the first to examine WIL phenomena in undergraduate psychology degrees through qualitative investigation. From this data a clear, evidence-based guide from which course coordinators, lecturers, and learning designers can identify and implement authentic learning experiences is now available. In doing so, this study provides a foundational basis from which a rich syllabus of future research is warranted. For example, most psychology graduates reported limited or no WIL opportunities throughout their three–four-year degree. While these shared perceptions amongst graduates of different cohorts suggests a systematic problem in the Australian curricula, future research (via a systematic review of program structures) is warranted to establish whether no/limited WIL exists, or if graduate (and educators) understandings of WIL are skewed to applied experiences such as placement, internships, and engagement with real-world situations. Additionally, further examination of the barriers, facilitators, and outcomes of WIL in psychology undergraduate degrees, including a thorough (i.e., processes and outcomes) evaluation of the integration of the proposed taxonomy is desirable. The topic of sample size in qualitative research has dominated much discourse, however, there is now a consensus on the required number of interviews to garner transferable meaning and generalization (see Bazeley, 2021). This study comprises 36 interviews, which constitutes an average number of in-depth inquiries as established by Saunders and Townsend (2016) (i.e., between 15-60 interviews). Additionally, the sample sizes for the different participant segments provided compelling insight and theme salience, primarily due to the clear consensus of responses related to the aim (see Braun & Clarke, 2019). However, caution should be exercised in generalizing results from this study until a broader breadth of research can corroborate our findings (Delmar, 2010).

CONCLUSION

The success of any university training program is contingent on its ability to yield competent, resourceful graduates that make a successful conversion from student to professional. A critical factor in ensuring such outcomes is through opportunities to participate in authentic and professional experiences that bridge the connection between theoretical and conceptual learnings and the real-world practices of a profession. Such experiences have been predominantly omitted from undergraduate psychology programs. This study addresses a core gap in the broader Australian curricula by encouraging the incorporation of a taxonomy of WIL opportunities designed to enrich education and preparedness for the workplace while laying the first stone for a larger program of research designed to enhance the capabilities and competencies of psychology undergraduates.

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REFERENCES

- APS College of Counselling Psychologists. (2021). *Student Q & A*.
<https://groups.psychology.org.au/GroupContent.aspx?ID=4913>
- Auburn, T., Ley, A., & Arnold, J. (1993). Psychology undergraduates' experience of placements: A role-transition perspective. *Studies in Higher Education*, 18(3), 265-285. <https://doi.org/10.1080/03075079312331382211>
- Australian Bureau of Statistics. (2019). 6227.0 - *Education and work, Australia, May 2019*.
<https://www.abs.gov.au/ausstats/abs@.nsf/7d12b0f6763c78caca257061001cc588/13a3074ce0e2da45ca25833e00108905!OpenDocument>
- Australian Government Department of Education, Skills and Employment. (2020, November). *2020 Graduate outcomes survey*.
<https://www.qilt.edu.au/resources?survey=GOS&type=Reports>
- Australian Psychological Society. (2020). *Careers in psychology*. <https://www.psychology.org.au/careers>
- Australian Psychology Accreditation Council. (2019). *Accreditation standards for psychology programs* [Evidence Guide].
https://psychologycouncil.org.au/wp-content/uploads/2021/09/APAC-Evidence-guide_v1.2.pdf
- Bazeley, P. (2021). *Qualitative data analysis. Practical strategies* (2nd ed.). SAGE Publications.
- Borden, V. M., & Rajecki, D. W. (2000). First-year employment outcomes of psychology baccalaureates: Relatedness, preparedness, and prospects. *Teaching of Psychology*, 27(3), 164-168. https://doi.org/10.1207/S15328023TOP2703_01
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
<https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2013). *Successful qualitative research. A practical guide for beginners*. Sage Publications.
- Braun, V., & Clarke, V. (2019). To saturate or not to saturate? Questioning data saturation as useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*, 13(2), 201-216.
<https://doi.org/10.1080/2159676X.2019.1704846>
- Bryan, J., Ranzijn, R., Balfour, C., Tuckey, M., Hayward, R., Pearson, E., Jackman, G., & Lushington, K. (2011). Increasing the work-readiness of Australian psychology undergraduates by changing the curriculum. In S. McCarthy, K. L. Dickson, J. Cranney, A. Trapp & V. Karandashev (Eds.), *Teaching psychology around the world* (Vol. 3, pp. 164-179). Cambridge Scholars Publishing.
- Caballero, C. L., & Walker, A. (2010). Work readiness in graduate recruitment and selection: A review of current assessment methods. *Journal of Teaching and Learning for Graduate Employability*, 1(1), 13-25.
<https://doi.org/10.21153/jtlge2010vol1no1art546>
- Conroy, J. C., Stamm, K. E., Pfund, R. A., Christidis, P., Hailstorcks, R., & Norcross, J. C. (2022). Career assistance from psychology programs and career services: Who is preparing psychology students?. *Teaching of Psychology*, 49(2), 144-152. <https://doi.org/10.1177/0098628320958695>
- Cranney, J., & Dunn, D. S. (2011). Psychological literacy and the psychologically literate citizen: New frontiers for a global discipline. In J. Cranney & D. S. Dunn (Eds.), *The psychologically literate citizen: Foundations and global perspectives* (pp. 3-12). Oxford University Press.

- Cranney, J., Morris, S., Martin, F. H., Provost, S., Zinkiewicz, L., Reece, J., Milne-Home, J., Burton, L. J., White, F. A., Homewood, J., Earl, J. K., & McCarthy, S. (2011). Psychological literacy and applied psychology in undergraduate education. In J. Cranney & D. S. Dunn (Eds.), *The psychologically literate citizen: Foundations and global perspectives* (pp. 146–164). Oxford University Press.
- Cranney, J., Turnbull, C., Provost, S. C., Martin, F., Katsikitis, M., White, F. A., Voudouris, N. J., Montgomery, I. M., Heaven, P. C. L., Morris, S., & Varcin, K. J. (2009). Graduate attributes of the 4-year Australian undergraduate psychology program. *Australian Psychologist*, 44(4), 253-262. <https://doi.org/10.1080/00050060903037268>
- Delmar, C. (2010). "Generalizability" as recognition: Reflections on a foundational problem in qualitative research. *Qualitative Studies*, 1(2), 115-128. <https://doi.org/10.7146/qs.v1i2.3828>
- Drewery, D., & Pretti, T. J. (2021). The building blocks of relevant work experiences. *International Journal of Work-Integrated Learning*, 22(2), 241-251.
- Edgar, S., & Connaughton, J. (2014). Exploring the role and skill set of physiotherapy clinical educators in work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 15(1), 29-36.
- Fay, P., & Adamson, L. (2017). Is there an occupational therapy employment crisis within Australia? An investigation into two consecutive cohorts of occupational therapy graduates from a single Victorian university identifying trends in employment. *Australian Occupational Therapy Journal*, 64(6), 466-476. <https://doi.org/10.1111/1440-1630.12432>
- Ferns, S., Russell, L., & Kay, J. (2016). Enhancing industry engagement with work-integrated learning: Capacity building for industry partners. *Asia-Pacific Journal of Cooperative Education*, 17(4), 363-375.
- Ferns, S., Russell, L., & Smith, C. (2015) Designing work integrated learning to optimise student employment readiness. In T. Thomas, E. Levin, P. Dawson, K. Fraser & R. Hadgraft (Eds.), *Research and development in higher education: Learning for life and work in a complex world* (pp 161-175). Higher Education Research and Development Society of Australasia
- Fleming, J., & Hay, K. (2021). Understanding the risks in work-integrated learning. *International Journal of Work-Integrated Learning*, 22(2), 167-181.
- Given, L. M. (2008). *The SAGE encyclopedia of qualitative research methods* (Vol. 1). SAGE Publications.
- Goedeke, S., & Gibson, K. (2011). What do new psychology students know about psychology? *Australian Psychologist*, 46(2), 133-139. <https://doi.org/10.1111/j.1742-9544.2011.00028.x>
- Golding, R. M., Breen, L. J., Krause, A. E., & Allen, P. J. (2019). The summer undergraduate research experience as a work-integrated learning opportunity and potential pathway to publication in psychology. *Frontiers in Psychology*, 10, Article 541. <https://doi.org/10.3389/fpsyg.2019.00541>
- Hall, M., Pascoe, D., & Charity, M. (2017). The impact of work-integrated learning experiences on attaining graduate attributes for exercise and sports science students. *Asia-Pacific Journal of Cooperative Education*, 18(2), 101-113.
- Hamilton, K., Morrissey, S. A., Farrell, L. J., Ellu, M. C., O'Donovan, A., Weinbrecht, T., & O'Connor, E. L. (2018). Increasing psychological literacy and work readiness of Australian psychology undergraduates through a capstone and work-integrated learning experience: Current issues and what needs to be done. *Australian Psychologist*, 53(2), 151-160. <https://doi.org/10.1111/ap.12309>
- Heafala, A., Mitchell, L. J., & Williams, L. T. (2021). Studying the transition from graduate to health practitioner: The Griffith Dietetics graduate outcomes survey. *Nursing Health Science*, 23(3), 723-732. <https://doi.org/10.1111/nhs.12861>
- Helyer, R., & Lee, D. (2014). The role of work experience in the future employability of higher education graduates. *Higher Education Quarterly*, 68(3), 348-372. <https://doi.org/10.1111/hequ.12055>
- Jackson, D. (2019). Student perceptions of the development of work readiness in Australian undergraduate programs. *Journal of College Student Development*, 60(2), 219-239. <https://doi.org/10.1353/csd.2019.0020>
- Jackson, D., & Collings, D. (2018). The influence of work-integrated learning and paid work during studies on graduate employment and underemployment. *Higher Education*, 76(3), 403-425. <https://doi.org/10.1007/s10734-017-0216-z>
- Marrington, J. Z., O'Shea, A., & Burton, L. J. (2019). The work-integrated learning program: Developing employability skills in psychology undergraduates. In K. Trimmer, T. Newman & F. F. Padró (Eds.), *Ensuring Quality in Professional Education* (Vol. 1, pp. 241-258). Springer. https://doi.org/10.1007/978-3-030-01096-6_11
- McGovern, T. V., Corey, L., Cranney, J., Dixon, W. E., Jr., Holmes, J. D., Kuebli, J. E., Ritchey, K. A., Smith, R. A., & Walker, S. J. (2010). Psychologically literate citizens. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 9-27). American Psychological Association. <https://doi.org/10.1037/12063-000>
- Messum, D., Wilkes, L., Peters, C., & Jackson, D. (2017). Senior managers' and recent graduates' perceptions of employability skills for health services management. *Asia-Pacific Journal of Cooperative Education*, 18(2), 115-128.
- Morris, S., Cranney, J., Jeong, J. M., & Mellish, L. (2013). Developing psychological literacy: Student perceptions of graduate attributes. *Australian Journal of Psychology*, 65(1), 54-62. <https://doi.org/10.1111/ajpy.12010>
- O'Gorman, J. G. (2001). The scientist-practitioner model and its critics. *Australian Psychologist*, 36(2), 164-169. <https://doi.org/10.1080/00050060108259649>
- Oliver, B. (2015). Redefining graduate employability and work-integrated learning: Proposals for effective higher education in disrupted economies. *Journal of Teaching and Learning for Graduate Employability*, 6(1), 56-65.
- Psychology Board of Australia. (2022). *Retirement of the 4+2 internship program*. <https://www.psychologyboard.gov.au/Registration/Provisional/Retirement-of-4-2-internship.aspx>

- Quality Indicators for Learning and Teaching (QILT) (2021). *2021 SES National Report*.
<https://www.qilt.edu.au/resources?type=Reports>
- Reddan, G., & Rauchle, M. (2017). Combining quality work-integrated learning and career development learning through the use of the SOAR model to enhance employability. *Asia-Pacific Journal of Cooperative Education*, 18(2), 129-139.
- Reddy, P., & Moores, E. (2006). Measuring the benefits of a psychology placement year. *Assessment & Evaluation in Higher Education*, 31(5), 551-567. <https://doi.org/10.1080/02602930600679555>
- Reupert, A., Davis, M., Stewart, S., & Bridgman, H. (2018). A new education pathway for postgraduate psychology students: Challenges and opportunities. *Australian Journal of Adult Learning*, 58(2), 225-245.
- Rowe, A. D., & Zegwaard, K. E. (2017). Developing graduate employability skills and attributes: Curriculum enhancement through work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 18(2), 87-99.
- Rowley, J. (2012). Conducting research interviews. *Management Research Review*, 35(3/4), 260-271.
<https://doi.org/10.1108/01409171211210154>
- Sachs, J., Rowe, A., & Wilson, M. (2017). *2017 Good practice report-work integrated learning (WIL)*. NSW Department of Education and Training.
- Saunders, M. N. K., & Townsend, K. (2016). Reporting and justifying the number of interview participants in organization and workplace research. *British Journal of Management*, 27(4), 836-852. <https://doi.org/10.1111/1467-8551.12182>
- Schweinsberg, A., Mundy, M. E., Dyer, K. R., & Garivaldis, F. (2021). Psychology education and work readiness integration: A call for research in Australia. *Frontiers in Psychology*, 12, Article 623353. <https://doi.org/10.3389/fpsyg.2021.623353>
- The Social Research Centre. (2021, September). *2021 Graduate outcomes survey - Longitudinal national report*.
https://www.qilt.edu.au/docs/default-source/default-document-library/2021-gos-l-national-report9ae5ea6b391f45b0af9d76cc92655563.pdf?sfvrsn=d5faafb8_0
- Trapp, A., Banister, P., Ellis, J., Latto, R., Miell, D., & Upton, D. (2011). *The future of undergraduate psychology in the United Kingdom*. <https://www.advance-he.ac.uk/knowledge-hub/future-undergraduate-psychology-united-kingdom>
- Workplace Gender Equality Agency. (2019). *Higher education enrolments and graduate labour market statistics*.
<https://www.wgea.gov.au/publications>
- Zegwaard, K. E., & Coll, R. K. (2011). Using cooperative education and work-integrated education to provide career clarification. *Science Education International*, 22(4), 282-291.



About the Journal

The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues dealing with Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE). Since then the readership and authorship has become more international and terminology usage in the literature has favored the broader term of WIL, in 2018 the journal name was changed to the International Journal of Work-Integrated Learning.

In this Journal, WIL is defined as "an educational approach that uses relevant work-based experiences to allow students to integrate theory with the meaningful practice of work as an intentional component of the curriculum. Defining elements of this educational approach requires that students engage in authentic and meaningful work-related task, and must involve three stakeholders; the student, the university, and the workplace". Examples of practice include off-campus, workplace immersion activities such as work placements, internships, practicum, service learning, and cooperative education (Co-op), and on-campus activities such as work-related projects/competitions, entrepreneurship, student-led enterprise, etc. WIL is related to, but not the same as, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal's main aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, co-op/WIL practitioners, and researchers. The Journal desires to encourage quality research and explorative critical discussion that leads to the advancement of effective practices, development of further understanding of WIL, and promote further research.

The Journal is ongoing financially supported by the Work-Integrated Learning New Zealand (WILNZ; www.wilnz.nz), and the University of Waikato, New Zealand, and received periodic sponsorship from the Australian Collaborative Education Network (ACEN) and the World Association of Cooperative Education (WACE).

Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL is primarily of two forms: 1) *research publications* describing research into aspects of work-integrated learning and, 2) *topical discussion* articles that review relevant literature and provide critical explorative discussion around a topical issue. The journal will, on occasions, consider good practice submissions.

Research publications should contain; an introduction that describes relevant literature and sets the context of the inquiry. A detailed description and justification for the methodology employed. A description of the research findings - tabulated as appropriate, a discussion of the importance of the findings including their significance to current established literature, implications for practitioners and researchers, whilst remaining mindful of the limitations of the data, and a conclusion preferably including suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical and scholarly discussion on the importance of the issues, critical insights to how to advance the issue further, and implications for other researchers and practitioners.

Good practice and program description papers. On occasions, the Journal also seeks manuscripts describing a practice of WIL as an example of good practice, however, only if it presents a particularly unique or innovative practice or was situated in an unusual context. There must be a clear contribution of new knowledge to the established literature. Manuscripts describing what is essentially 'typical', 'common' or 'known' practices will be encouraged to rewrite the focus of the manuscript to a significant educational issue or will be encouraged to publish their work via another avenue that seeks such content.

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