Bimodal work-integrated learning experiences: Enhancing graduate attributes in exercise and sport science

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Given the importance of work-integrated learning (WIL) for developing graduate attributes, universities must seek to reduce negative experiences associated with WIL. WIL outcomes may be enhanced by embedding the experience internally within the academic setting. This study explored the experiences of Exercise and Sport Science (E&SS) students who were concurrently engaged in embedded (on campus) and external (off campus) WIL opportunities. Specifically, we investigated if students reported a perceived difference in attaining graduate attributes when participating in one of three WIL models: (i) embedded; (ii) external or (iii) bimodal. A sequential mixed methods approach was employed, which included an initial online survey and subsequent focus groups. Students reported that WIL was generally a positive, albeit variable experience, dependent on the professional supervisor. The overwhelming consensus was that E&SS students benefited from a bimodal WIL model in the development of graduate attributes, rather than individually embedded or external WIL models.

Keywords: Graduate attributes, mixed methods, exercise and sport science.

Graduate attributes are general employment skills, also referred to as soft skills, which are typically not discipline specific, but rather reflect skills which are broadly required to be effective in diverse workplaces or community settings. Whilst specific graduate attributes are often prescribed by each tertiary institution, common attributes are communication, global citizenship, discipline specific knowledge and lifelong learning (Oliver & Jorre de St Jorre, 2018).

Higher education program accreditation bodies often mandate the incorporation of work-integrated learning (WIL) to enhance graduate attributes. WIL is intended to provide students with valuable opportunities to network with industry professionals, apply and consolidate theoretical concepts and develop employment specific skills that are often difficult to develop in traditional academic settings (Cooper et al., 2010; Hall et al., 2017). Evidence suggests however, that negative experiences during WIL may limit learning outcomes and the student experience (Crowe & Mackenzie, 2002; Hall et al., 2017; Nagarajan & McAllister, 2015). Commonly reported issues include: conflict with professional supervisors or other agency staff, a lack of autonomy while practicing, insufficient feedback, inappropriate supervision and a lack of defined curricula (Crowe & Mackenzie, 2002; Hall et al., 2017).

A key component of successful WIL is that students integrate into a formal working environment (Cooper et al., 2010). However, it is this integration that is both academically rewarding for students, yet also potentially problematic, as it can be more difficult to regulate the student experience in external environments in comparison to traditional tertiary learning settings. One way of managing WIL learning outcomes is via embedding the experience internally within the academic setting, whereby the professional service is provided on the academic campus. Embedded WIL has been proposed to provide students with a means of engaging in industry relevant experiences while minimizing common issues presented with external settings (Hodges & Martin, 2020). Embedded WIL programs have been delivered at tertiary institutions across a range of disciplines, including Education, Health Science,

Psychology, and Speech Pathology (Doolan et al., 2019; Hodges & Martin, 2021), and have demonstrated demonstrate to positively impact students learning outcomes. For example, Massey University, New Zealand runs an embedded WIL program for Exercise Science and Physiology students alongside external WIL experiences (Hodges & Martin, 2021). A recent review of the embedded WIL reported that these experiences reinforced student's exercise prescription skills, career direction and enhanced their self-awareness (Hodges & Martin, 2020). However, a direct comparison between the embedded and external WIL experiences was not conducted. Additionally, a case study at the University of Notre Dame Australia, Fremantle explored the efficacy of embedded WIL curriculum for developing graduate attributes in Health and Physical Education, with students largely reporting positive outcomes for the development of graduate attributes (Doolan et al., 2019). Further to this, a 2022 review of Australian student graduate data found that incorporating WIL into undergraduate and postgraduate programs positively impacted student's perceived employability, no matter the structure of the experience (Jackson & Dean, 2023). Despite evidence supporting embedded WIL experiences, it is unclear, if embedded WIL is a more advantageous means to develop graduate attributes when compared to traditional external WIL, or if students' learning outcomes can be optimized by concurrently using an embedded and external (i.e., bimodal) WIL model.

Consequently, the purpose of this current study aimed to explore the efficacy of a bimodal WIL model on the perceived development of graduate attributes in Exercise and Sport Science (E&SS) students studying at the University of Notre Dame Australia, Fremantle. The university is a medium sized metropolitan university, which offers programs in a variety of disciplines, such as: Health and Medical Sciences, Business & Law, Education, Arts & Sciences, and Philosophy & Theology. Specifically, this study sought to establish whether E&SS students reported a perceived difference in meeting the graduate attributes when participating in one of three WIL models: (i) embedded; (ii) external or (iii) bimodal (i.e., embedded and external). All E&SS students were enrolled in a final year practicum course (*N*=48). This course commenced in semester one 2019 during the students final year, with all practicum and assessment requirements finalized by the end of second semester of the same year. This meant students had nine months to complete the required practicum requirements of the course, which included a minimum of 150 WIL hours, of which at least 30 hours must be completed in embedded WIL. Students had previous exposures to WIL, as they were also required to engage in a minimum of 150 hours of external WIL in the second year of their degree, with 50 hours of external sports trainer WIL.

METHODS

Research Design

This study used the lens of experiential learning theory (Kolb, 1984) to interpret the potential value WIL provided to students' development of graduate attributes. In line with this model, students learn through active engagement in practical, structured activities where they are required to apply their theoretical knowledge in a self-directed way, while continuously reflecting on and making sense of their experiences to inform further growth. Each university promotes their own specific graduate attributes, however for this study we defined the graduate attributes specific to the participating university, and these were: communication, critical thinking, work competency, professionalism and ethical integrity, and understanding of diversity and inclusivity.

A sequential, mixed-methods design was utilized to assess the WIL experiences of students and how the experience shaped the development of the graduate attributes. Such a design allows comprehensive

exploration and increased understanding of the area of investigation (Bowen et al., 2017; Ivankova et al., 2006). University Human Research Ethics approval was granted to conduct this investigation (019113F). The initial online survey was distributed by the lead researcher (AC), who was not involved in the delivery or grading of the practicum course, to all final year students to quantitatively capture their perceptions about their WIL experiences and development of specific graduate attributes (*n*=34 responses). The survey was distributed in the final weeks of semester two, after students had completed their practicum requirements. This process was followed by focus group interviews (*n*=17) to better capture the complexity of the learning experiences (Ary et al., 2018) and how WIL influenced attainment of graduate attributes. The focus groups were held during the study week, prior to the student's final exam period. Importantly, mixed-methods research supports triangulation of data, enhancing the validity and credibility of the findings and their implications (Doyle et al., 2009). Thus, the survey provided quantifiable data about students' WIL experiences, while qualitative interview findings contextualized and elaborated on findings to enable more robust conclusions to be drawn (Bowen et al., 2017; Ivankova et al., 2006).

Participants

Convenience sampling was used to invite, via email, all E&SS students enrolled in the final year practicum course to participate. The embedded WIL experience is a compulsory capstone element of the E&SS undergraduate program supervised by qualified university staff on campus. Designed to deliver an authentic professional service, students deliver individualized exercise training to two university staff members for 13-weeks. Specifically, students perform a baseline health and fitness assessment on their clients before prescribing and delivering an individualized goal-oriented training program in the university gym facility once per week, supervised by an Accredited Exercise Physiologist (AEP). A final post-training client assessment is undertaken in the final week where students are formally assessed on aspects of their performance, including evidence-based exercise prescription, coaching ability, and interpersonal skills. The genesis of the program was not only to provide students with a new opportunity to meet the intended learning outcomes, but to also provide a free, convenient, and effective health and wellbeing program in response to the alarming increase in occupational stress among Australian and New Zealand university academic staff (Lee et al., 2022).

Students also have the option to participate in additional embedded WIL experiences including an adolescent movement program (named AMPitup), and an exercise physiology clinic. As part of their practicum course requirements all students are also required to participate in external WIL from within a large range of organisations and E&SS contexts. Students self-select their external experiences in consultation with the course practicum coordinator and are allocated a professional supervisor. All supervisors are provided with resources to ensure they understand the academic requirements, scope of practice and professional expectations of students. Both internal and external experiences provide students with the opportunity to meet the practicum course learning outcomes. In addition, the external experience offers students the opportunity to develop industry connections and to experience of variety of work settings and thus enhance their graduate attributes.

Stage One – Online Survey

The survey asked students to rate their perception, using a 7-point Likert scale (ranging from 1 – very positive, 4 – neutral, 7 – very negative), of their experiences of the embedded and external WIL models, for enhancing their attainment of graduate attributes. An open-ended response was also available for students to articulate other skills developed in these learning experiences. Students were also asked to

provide any recommendations regarding WIL experiences which might be used to improve the attainment of graduate attributes for future cohorts. The survey was piloted with recent E&SS alumni (*n*=5) with construct validity of the survey tool conferred. Thirty-four students anonymously completed the online survey. Statistical analysis was conducted in SPSS v 26. Descriptive results were reported as either frequencies, means ± standard deviation or median with inter-quartile ranges. Wilcoxon Signed Ranks Test was used to compare the efficacy of the internal and external placements for developing the graduate attributes. Alpha was set at 0.05.

Stage Two – Focus Groups

The entire cohort of students were invited to participate in a focus group, of which seventeen students (male=8, female=9) volunteered. These students were split into four heterogeneous groups of three to five participants, with the focus groups conducted on campus over a period of one week, at the completion of their final semester of study. A semi-structured interview guide based on the same questions asked in the survey was used to gain a more nuanced understanding of the students' experiences, encourage reflection and interaction between participants. All groups were audiotaped for transcription purposes, lasted approximately 45 minutes, and were facilitated by the one researcher (CP), who was not directly involved in the practicum academic course or WIL experiences, to ensure consistency.

Audio recordings were initially transcribed and coded manually (by CP) as a part of the inductive process. The anonymity of students was protected by allocating a number to each student. The analysis involved a systematic and open coding process to identify common themes throughout the dataset. Categories were abstracted from the data by organizing and interpreting commonalities in responses. The process of analysis enabled the researcher to become immersed in the data, ascertain meaning and identify content most relevant to the aims of the study (Hsieh & Shannon, 2005). Similar codes were grouped together into sub-categories and further delineated into main categories. These categories were subsequently confirmed by a second member of the research team (AC) using QSR NVivo version 11. The final phase of analysis involved discussions between members of the research team to ensure a consensus was reached regarding the themes and sub-themes identified within the dataset.

RESULTS

Engagement in the Different Models of Work-Integrated Learning

Students reported on average engaging in 390 ± 131 hours of combined embedded and external WIL across their E&SS degree. Of these, 51 ± 25 hours were embedded WIL hours completed on campus and 339 ± 130 hours externally. Table 1 highlights the types of WIL experiences that participants were engaged in.

TABLE 1: Type of work-integrated learning experience.

Embedded WIL Experience	n
Staff Fitness	34
Adolescent training program (AMPitup)	20
Exercise Physiology clinic	7
Other	1
External WIL Experience	**n**
Strength and Conditioning	24
Exercise Physiology	7
Coaching	19
Education, e.g., Science, Health, & Physical Education	3
Health Promotion	1
Sports Trainer	34
Data/Performance Analytics	8
Personal/Group Fitness Trainer	10
Research Assistant	5
Talent Identification	9
Sport Management	1
Other	4

Comparisons between the overall learning experience and ability of the two different models to develop graduate learning attributes are presented in Table 2. Notably, the overall learning experience for both embedded and external WIL was positive. Furthermore, both experiences were deemed to have a net positive impact on the development of each of the graduate attributes. There was no statistically significant difference demonstrated between embedded and external WIL for developing graduate attributes.

TABLE 2: Student's perception of embedded and external WIL for developing graduate attributes.

	Embedded WIL			External WIL				
	Medium	Q1	Q3	Medium	Q1	Q3	Z	p
Overall experience	2	2	3	2	2	3	0.238	0.81
Communication & interpersonal skills	2	1	3	2	1	2	1.127	0.26
Critical thinking	2	2	3	2	2	3	1.071	0.28
Technical competency	2	2	3	2	1	3	1.267	0.21
Professionalism & ethical integrity	2	1.25	3	2	1.25	3	0.019	0.99
Understanding of diversity & inclusivity	2	1.25	3	2	2	3	0.253	0.80

The Benefits and Challenges of Work-Integrated Learning

The major benefits of WIL mentioned by students, no matter the model, was the ability to apply the theory developed throughout their undergraduate degree into practice. Specifically, they talked about the increased depth of understanding of the disciplines. They also reported making sense of the classroom experience in practice and the increased confidence in working with clients over time. "I definitely grew in my knowledge and could finally apply everything I've learnt, like strength and conditioning and all those units" (Focus Group (FG) 1 – Male (M) 2). "I thought it was going to be a lot harder than what it was, to be honest. Then once you get going with your client it's like, ah, I can do this. Like, this makes sense. This is easy" (FG4 – Female (F) 3).

The experiences were also seen by students as providing some agency in pursing future career paths: "It was a really good insight, because I wasn't sure whether I wanted to do [Physiotherapy] or [Exercise Physiology]" (FG4 – F2). "I didn't really see that side of [Exercise Physiology] until that point and decided it's probably not for me." (FG1 – F2).

The major challenges reported by students was the time constraints associated with completing their hours. Unlike embedded WIL, external WIL was not scheduled at regular times of the day or during traditional work hours. This irregular scheduling made balancing work, study, and life a common challenge for students when engaging in external WIL experiences.

> It was more like timetabling type things, because I like play soccer, [have university], work, etc. All the footy clubs, generally [train] Tuesday, Thursday, when I had my own trainings- So, it was hard to kind of get enough hours in the year. (FG4 – M1)

However, students also felt that they had some responsibility for making the experience work and expressed their misgivings of other students who did not appear to be motivated to engage in external WIL in the way that they envisaged was the purpose of the experience:

> I think it depends on the person, if you're motivated then you're going to go and seek what you're interested in, but lots of people might struggle for hours just because they're not motivated to go and try something different. (FG1 – F1)

Opportunities for growth during external WIL was not always within the student's control, with some supervisors providing greater opportunities than others:

> If you [get] a mentor that just wants you to literally follow him [sic]around and watch and stand on the side, that's not going to do anything. But if you get a mentor that's really empowering and ends up giving you responsibility, then there is a lot of opportunity for growth. (FG2 – M2)

Acquisition of Attributes

All students reported the development and acquisition of all graduate attributes aligned with their WIL experiences. However, the overwhelming consensus from students who participated in the focus groups was that they considered the bimodal WIL model (*n*=25) to be more beneficial for holistically developing graduate attributes than the individual embedded (*n*=3) or external (*n*=6) models. Some individual attributes such as critical thinking and technical competency were reported to be better developed via external WIL. While communication, interpersonal skills and professionalism were reportedly better developed via embedded WIL.

1. Critical thinking and technical competency

Despite the survey data suggesting otherwise, students involved in the focus groups were unanimous in their belief that critical thinking and technical competency was optimised in external settings. However, the setting and supervisor was the main mitigating factor in attaining these attributes and appears to be linked to the level of responsibility, that is, whether they had the opportunity to use the skill set. Participants also linked critical thinking with their growing knowledge and confidence, helping them to feel technically competent and reassured of their capability to work in the field on graduation: "I'd get put with like one or two [clients] that couldn't really do everything … So, I had to figure out … [how they could] get benefits out of it without being as capable as everyone else" (FG4 – M3).

> You've got to actually come up with a movement that they can use and everyone has got different injuries and different [limitations] so you've got to adapt it to different people … that's the kind of critical thinking that people need, in the actual industry. (FG2 – M1)

2. Communication and interpersonal skills

Developing interpersonal and communication skills has been a key emphasis of the University when developing the embedded WIL opportunities. In these environments students engage with non-athlete populations, such as clinical or general populations, geriatric, and paediatric clients. The diversity of clientele associated with the embedded WIL was consistently linked to development of communication and interpersonal skills. "You learnt to deal with different populations, different people that maybe you would face outside" (FG2 – F4). "I think it was learning how to change my language for different types of people" (FG3 – F2).

However, students did acknowledge that it was only in the external WIL that students were provided the opportunity to communicate with a variety of different professional stakeholders:

> I found that especially the two sporting clubs … you have to communicate with the athletes, then communicate with the coaches and the strength and conditioning coach. So, you have a lot of different ways of talking to different people. (FG4 – M3)

3. Diversity/inclusivity

It was primarily the embedded WIL experiences which were attributed to experiences of enhancing diversity and/or inclusivity. Students reported that external WIL experiences were limited in their opportunities to work with diverse populations, with the clientele linked to external WIL placements more homogenous than the embedded clientele. "The AMPitup program … [showed] how different … and difficult a lot of people find exercise. It … made me take a step back and go alright this is big" (FG3 – M2). "All of my hours were with an elite population beside the [hours] that I did for AMPitup and the [Exercise Physiology] clinic. These were pretty eye-opening given that I had just done 400 hours with elite young people" (FG3 – F1).

Perceptions of the Work-Integrated Learning Model

The bimodal WIL model was preferred by all students. That is, the embedded and the external experiences combined had specific advantages. For example, the students reported that the embedded WIL experiences provided structure and autonomy, while external experiences often had a greater diversity of roles. "I think Staff Fitness has the potential to be the best … because it's the only one where you truly take control and develop the whole program yourself and run it" (FG2 – M1).

"Although I did prefer the structure in the internal one, I liked having external as well, because I felt like it kind of increased our confidence" (FG4 – M2).

> I enjoyed the external as it was a lot more diverse … I did branch out a little bit, I got to try everything and see what it's like in the field to do the different things … different clubs and different organisations, the connections you build and the external [WIL] is really valuable. (FG1 – F1)

DISCUSSION

This study aimed to explore the experiences of E&SS students at a single Australian university who were concurrently engaged in embedded (on campus) and external (off campus) WIL experiences. Specifically, this study sought to establish whether students reported a perceived difference in attaining the graduate attributes when participating in one of the three models: (i) embedded; (ii) external or (iii) bimodal WIL. The primary findings were that students encountered a net positive learning experience for both embedded and external WIL, with both experiences having a positive impact on the development of all graduate attributes. Overall, most students considered the bimodal WIL model more beneficial in comparison to the individual embedded or external WIL experience. Finally, despite the positives, students highlighted factors that made the WIL experience challenging.

While disciplinary expertise or technical knowledge traditionally forms the core of most university degree programs, graduate attributes are qualities that prepare students as agents for social action and global citizenship, and consequently should be an area of core business for institutions (Bowden et al., 2000). A review of the literature suggests that this is the first study to compare both embedded and external WIL experiences and demonstrate that E&SS students value both embedded and external WIL experiences. Students perceived the bimodal WIL experience to support the development of graduate attributes, more so than either embedded or external WIL placements on their own. In this study the graduate attributes that students felt were acquired as a result of their experiences were communication, critical thinking, technical competency, professionalism and ethical integrity and understanding of diversity and inclusivity. This is consistent with previous scholarship that demonstrate the importance of overall WIL experiences for graduate attribute development (Doolan et al., 2019; Freudenberg et al., 2011; Jackson, 2013; Rowe & Zegwaard, 2017). The embedded WIL model, particularly the compulsory Staff Fitness program, were perceived to be as equally effective to traditional external WIL experiences for developing graduate attributes. This finding suggests that tertiary institutions have the capability to deliver authentic and effective embedded WIL for the E&SS discipline. It seems likely that programs that provide training for the professions may also benefit from incorporating embedded WIL into the curriculum. This approach includes health disciplines such as Physiotherapy, Physical Education, Nursing and Medicine. Importantly, doing so may negate some of the common challenges associated with external WIL identified by students in this and previous studies, such as poor learning opportunities, scheduling and inadequate supervision (Crowe & Mackenzie, 2002; Hall et al., 2017). Further, costs associated with external WIL site visits for auditing and student assessment purposes can be significant, particularly among large student cohorts. Therefore, embedded WIL experiences are an attractive means of reducing such costs for institutions, while ensuring high standards of student learning and development are maintained.

The major benefit of WIL reported by students was the opportunity to apply theoretical learning in a practical setting, particularly in areas such as exercise assessment, prescription, and delivery. Other key benefits were increased confidence working with clients and identifying specific career

pathways/specialist areas of work to pursue post-graduation. Such benefits are clearly advantageous to graduates entering the workforce and can be considered critical for optimizing employability. While not specific to E&SS students, previous scholarship support a strong alignment between graduate employability and WIL experiences (Jackson & Bridgstock, 2021; Jackson & Dean, 2023; Jackson & Wilton, 2017; Rowe & Zegwaard, 2017).

The major challenges of the WIL experiences for students were time constraints associated with scheduling external WIL. This impact is important to consider particularly in the E&SS industry where major areas of work take place in unsociable hours". For example, sporting teams train and competing during evenings and on weekends, and the peak times to see clients in private training facilities/clinics are typically mornings and evenings. Given the significant growing interest in addressing student wellbeing (Dodd et al., 2021; Fleming, 2021), embedded WIL provides students with the opportunity to meet professional accreditation requirements in a healthy work/study and life balance environment. That is, it addresses the "student culture [which] has become isolating, high-pressured and anxious" (Fleming, 2021, p. 84).

Focus group data also highlighted the variability in student responsibility and supervision/mentorship during external WIL. All second year E&SS students were required to complete a compulsory 50 hours of sports trainer practicum. These prior industry connections may in-part account for why so many students opted to pursue external placements within sporting clubs in their final year. Students reported the following most common types of external WIL experiences in order: sports trainer, strength and conditioning and sports coaching. Education, health promotion and sport management were the least common. The popularity of external WIL in sports performance settings, predominantly semi-professional contexts, probably also signifies the demand for student volunteers in this industry sector. Anecdotally, students can typically secure WIL experiences in this setting with ease, however, this does not always result in a valuable and meaningful learning experience.

Despite strong efforts, such as handbooks and regular communication across semester, to ensure external WIL supervisors understand their role and responsibilities, it appears that there is still the risk of students feeling unsupported or underutilized while on placement. One student (FG2- M2) highlighted that some supervisors simply expect the students to shadow the supervisor, while others were more active in providing student learning opportunities on practicum. Perhaps the large number of industry professionals, for example, business owners running private fitness facilities, those working with semi-elite sporting organizations during the evening and weekend, who supervised students, have higher working demands to invest strongly in student supervision, learning and development. This challenge, along with the significant resourcing from universities to attempt to ensure high quality and consistent supervision across external organizations, is a good reason to consider implementing embedded WIL alongside external placements. That is, embedded experiences supervised by academics as part of their teaching load that may reduce the frequency of negative experiences. Moreover, such programs could present a significant opportunity for efficacious and cost-effective employee health and wellbeing initiatives on campus, with potential to be structured in a way that simulates multi-disciplinary health professional environments for broader student impact and employee benefit.

Interestingly, in addition to the compulsory Staff Fitness program, a large portion of students opted to gain WIL hours in the embedded AMPitup program and less so, in the Exercise Physiology clinic. The AMPitup program was perceived by students to be of particular interest because of the opportunity to deliver exercise to adolescents with disabilities. This finding is important, as it seems some students

approached the final stages of their degree wishing they had gained more experience with diverse populations, which would be conducive to seeking employment upon graduation. Focus group data highlighted students commenting on AMPitup as eye-opening, evidencing the significance of being exposed to diverse and special populations during WIL. This contrasts with the limited opportunity prior to accessing AMPitup to work with diverse populations during external WIL. Therefore, it would be useful for universities delivering E&SS and health-related degree programs to consider ensuring students gain exposure to diverse clients rather than completing most of their WIL within a single population and/or setting. Such opportunities may be possible by offering various embedded WIL experiences via partnering with external community and sporting organizations.

CONCLUSION

Final year E&SS students experienced a positive overall learning experience across both embedded and external WIL, with both models demonstrating positive contributions to the development of graduate attributes. Nevertheless, this study has demonstrated that universities should be considerate of the specific factors that challenge industry-specific external WIL. Embedded WIL offers authentic, appropriately supervised, and convenient experiences that overcome common challenges and provide optimal opportunities for student learning and professional upskill. Ultimately, the bimodal (i.e., embedded and external) WIL model explored in the present study appears to be successful for the holistic development of graduate attributes in tertiary E&SS programs.

While findings were supportive of the bimodal delivery of WIL, the findings of this study do need to be considered in relation to some methodological limitations. Primarily, the generalizability of the findings are limited as the study recruited a convenient, relatively small sample of participants from a singular program at one University. It would therefore be useful for future studies to examine a greater number of student perceptions of the value of bimodal WIL and the capacity of the different models to support the development of graduate attributes across a range of disciplines. Moreover, the potential for embedded WIL experiences to serve various health-discipline degree programs while positively promoting university employee health and wellbeing is an important concept for consideration given the current state of higher education. Future research should consider the positive impacts of such WIL programs on all stakeholder's experiences; that is, the university, the employee, the internal and/or external supervisor and the student.

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The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues related to Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE).

In this Journal, WIL is defined as " *An educational approach involving three parties – the student, educational institution, and an external stakeholder – consisting of authentic work-focused experiences as an intentional component of the curriculum. Students learn through active engagement in purposeful work tasks, which enable the integration of theory with meaningful practice that is relevant to the students' discipline of study and/or professional development"* (Zegwaard et al., 2023, p. 38[*]). 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, entrepreneurships, student-led enterprise, student consultancies, etc. WIL is related to, and overlaps with, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal's aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, WIL practitioners, curricular designers, and researchers. The Journal encourages quality research and explorative critical discussion that leads to the advancement of quality practices, development of further understanding of WIL, and promote further research.

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Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL is 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 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.

By negotiation with the Editor-in-Chief, the Journal also accepts a small number of *Book Reviews* of relevant and recently published books.

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[*] Zegwaard, K. E., Pretti, T. J., Rowe, A. D., & Ferns, S. J. (2023). Defining work-integrated learning. In K. E. Zegwaard & T. J. Pretti (Eds.), *The Routledge international handbook of work-integrated learning* (3rd ed., pp. 29-48). Routledge.