



Factors Impacting the Design of Innovative WIL Education

Mark O'Rourke , Gillian Vesty , Sonia Magdziarz, Priyantha Mudalige ,
Connie Vitale , Dorothea Bowyer , Sujay Nair et Sharon Soltys

Volume 19, numéro 2, 2025

URI : <https://id.erudit.org/iderudit/1118263ar>

DOI : <https://doi.org/10.22329/jtl.v19i2.8781>

[Aller au sommaire du numéro](#)

Éditeur(s)

University of Windsor

ISSN

1492-1154 (imprimé)

1911-8279 (numérique)

[Découvrir la revue](#)

Citer cet article

O'Rourke, M., Vesty, G., Magdziarz, S., Mudalige, P., Vitale, C., Bowyer, D., Nair, S. & Soltys, S. (2025). Factors Impacting the Design of Innovative WIL Education. *Journal of Teaching and Learning*, 19(2), 115–134.
<https://doi.org/10.22329/jtl.v19i2.8781>

Résumé de l'article

The issues and experiences of work-integrated learning (WIL) accounting and financial planning academics across higher education (HE) institutions in developing innovative WIL programs are discussed by the authors. The authors reflect on their responsibilities and goals and how these aligned with student and institutional expectations for both work-based situations as well as classroom-based simulations. Cross-institutional collaboration on WIL approaches in undergraduate and postgraduate accounting courses reveal contrasting priorities and tensions when addressing the needs of stakeholders. Particularly noticeable are the institutional requirements for a technology-driven WIL curriculum, that meet with student, industry and institutional expectations. We contribute with insights on educator preparedness for delivering technology enhanced WIL programs and provide an in-depth analysis of academic engagement with WIL designs. Drawing on Activity Theory to analyse the constraints and confluences perceived in the design and teaching of WIL programs, this research contributes to our understanding of effective ways to manage this activity.

© Mark O'Rourke, Gillian Vesty, Sonia Magdziarz, Priyantha Mudalige, Connie Vitale, Dorothea Bowyer, Sujay Nair et Sharon Soltys, 2025



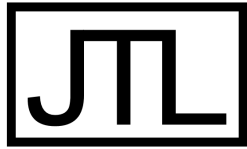
Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter en ligne.

<https://apropos.erudit.org/fr/usagers/politique-dutilisation/>

Cet article est diffusé et préservé par Érudit.

Érudit est un consortium interuniversitaire sans but lucratif composé de l'Université de Montréal, l'Université Laval et l'Université du Québec à Montréal. Il a pour mission la promotion et la valorisation de la recherche.

<https://www.erudit.org/fr/>



Factors Impacting the Design of Innovative WIL Education

Mark O'Rourke
RMIT University

Gillian Vesty
RMIT University

Sonia Magdziarz
RMIT University

Priyantha Mudalige
University of New England

Connie Vitale
University of Western Sydney

Dorothea Bowyer
Western Sydney University

Sujay Nair
University of Melbourne

Sharon Soltys
University of Melbourne

Abstract

The issues and experiences of work-integrated learning (WIL), accounting, and financial planning academics across higher educational institutions in developing innovative WIL programs are the focuses of this study. The authors reflect on their responsibilities and goals, centering on how these aligned with student and institutional expectations for both work-based situations and classroom-based simulations. Cross-institutional collaboration on WIL approaches in undergraduate and postgraduate accounting courses reveal contrasting priorities and tensions,



when addressing the needs of stakeholders. Particularly noticeable are the institutional requirements for a technology-driven WIL curriculum that meets with student, industry, and institutional expectations. This research provides insights about educator preparedness for delivering technology enhanced WIL programs, and an in-depth analysis of academic engagement with WIL designs. Drawing on activity theory, to analyze the constraints and confluences perceived in the design and teaching of WIL programs, this research contributes to the understanding of effective ways to manage this activity.

Introduction

Work-integrated learning (WIL) operates under a broad definition and continuum of experiences, from classroom case studies to full immersion in an organizational setting. This type of education is defined as “student experiences of work within curriculum, undertaken in partnership, through engagement with authentic and genuine activities for the industry, business or community partner, which are assessed” (Campbell et al., 2019, p.1). WIL experiences may be real or simulated, emulated within higher education (HE) through online or face-to-face experiences, or occur in the workplace. In accounting education, WIL is designed to offer university students curriculum-aligned, experiential engagement with industry partners. Students entering this program expect that they will be undertaking work-related experiential learning and assessment. They anticipate that they will solve real-world problems with their newly-acquired accounting knowledge. Student career-focused expectations also shape the WIL design. These expectations include seeking engaging experiences that are closely aligned to perceived career destinations. They involve working for employers who have a clear purpose and aligned social values, opportunities for global experiences, as well as schedules that do not interfere with, or disrupt, other commitments. Students also expect technologically-enhanced communication channels, including immersive WIL technologies that simulate reality and prepare students for work-based learning experiences. While situation-based authentic learning and assessment plays an important part of curricula design, the educator is also required to put such learning initiatives into place.

Innovative approaches to learning and technological support ensure that students gain a variety of cultural and workplace insights (Khampirat & McRae, 2016). However, recent research suggests that the majority of graduating students report that it is only after graduation, when actually working in an organizational setting, that their skills and experience on the job allow them to fully meet their career ambitions (Deloitte, 2015). The goal for HE is to have students engaged in WIL education before entering the workforce, and that academic staff who are facilitating the engagement do so through constructively-aligned experiential learning and assessment (Leong & Kavanagh, 2013). Essentially this dynamic process involves complex communications with students, educators, the educational institution, and industry (Patrick et al., 2008), so that students can see the value of their educational preparation for the workplace from the very beginning of their program. The educator must have an understanding of how to prepare work-ready graduates, with both technical and non-technical capabilities (Deloitte, 2015; KPMG, 2017). Thus, flexibility is required to align WIL projects to emerging industry demands, the changing needs of employers, and the accounting profession. Technological innovations and digital disruptions are a vital part of this WIL preparedness.

When the COVID-19 pandemic impacted the stability of WIL placements and face-to-face training, academics were required to be innovative in driving emergent WIL programs. This

required a consideration of pedagogical approaches to suit different student cohorts and cultures where WIL placements could initially be stressful. The literature acknowledges the positive influence WIL pedagogy has on student satisfaction, self-efficacy, and a work-ready business acumen (Freudenberg et al., 2011), as well as graduate skill development (Leong & Kavanagh, 2013). In spite of the pandemic, there has been a long-held belief among educators that skills, including communication, problem solving, and teamwork, are important for graduate outcomes (De la Harpe & David, 2012). However, the ways to embed these learning outcomes into the curriculum remain challenging. Further attention is required to provide the educator with WIL skills for the design of innovative practices and assessment that captures the broad and continually emerging definition of WIL (Peach et al., 2011).

This research draws on author experiences associated with developing and delivering meaningful WIL programs to meet stakeholders' (university, government, industry, student) needs. It asks what the educators' skills are that enable effective WIL curriculum design, and what elements need to be considered in a post COVID-19 environment. Author conversations are used to explore the different institutional approaches that facilitate the alignment of WIL academic engagement with authentic learning and assessment. The complexity of interactions among industry, academics, and students lends itself to adopting an activity-theoretical approach (Engeström, 2001) to analyze strategies and technologies for coordinating and delivering WIL programs. This analysis also includes examining how communications, virtual WIL tools, and WIL design support alignment with pedagogy help the educator to meet regulatory, employer, and student expectations. The adoption of activity theory, as an approach, allows the exploration of the nuances regarding how WIL programs are managed and delivered, with an end goal of establishing the factors and parameters that result in outcomes of sound practices for an innovative delivery.

In the following sections, a literature review of the educators' skills that are required for accounting WIL-based knowledge is provided. This review connects with the emerging trends in authentic, innovative, assessment designs and learning approaches that consider digitally enabled WIL experiences resulting from the pandemic. The activity-theoretical framework is discussed. Following this, the different experiences of the authors are mapped to the parameters within the activity-theoretical framework. It was tested to understand stakeholders' interactions and WIL design parameters. It will conclude with a discussion of the requisite skillset for the innovative educator in future-proofing effective WIL engagements.

Literature Review

Work-integrated learning (WIL) is not a new concept, and overall studies highlight that it should provide students with transferable skills that are required to assimilate in the workforce, so that student employability can be enhanced (Billett, 2004; Jackson, 2015; Smith et al., 2014). However, the diversity in WIL delivery (e.g. virtual, simulated WIL, WIL in the classroom, WIL in the workplace) is complex, with the comparability of outcomes requiring additional exploration (Wheeldon et al., 2023), such as managing expectations and perceptions, overcoming learning challenges, as well as stakeholder engagement. As the diversity of WIL experiences being offered increases, the concept of what constitutes quality differs, based on context, values, and the institutional environment (Dean & Campbell, 2020; Rowe et al., 2012). This has led to the development of frameworks for assessing the quality of diverse WIL offerings (Dean & Campbell, 2020; Hay, 2020; Lasen et al., 2018). Widely applied and cited frameworks, such as Campbell et al. (2019), acknowledge this diversity, but are grounded in common underlying principles and

standards which can be applied to determine whether or not a specific opportunity is a quality offering. This has been measured in terms of the relationship between working and learning hours (Bailey et al., 2000), with varying degrees of practices, resources, and academic interventions (Reeders, 2000). This program design encompasses the physical spaces and online environments where academics work, and include communications with students, industry, and within institutions.

The offerings of WIL have long been recognized to foster student engagement, which in turn, improves student learning and experiences (Biggs, 1999; Patrick et al., 2008). Engagement is a key requirement for effective experiential learning; for learning to occur, students must engage and reflect on their experience (Beard & Wilson, 2002). Similarly, educators require an understanding of student values and drivers (Schullery, 2013) for improved “active and collaborative learning, participation in challenging academic activities, and formative communication with academic staff” (Coates, 2007, p.122). By its nature, WIL promotes active participation and collaboration in a contextualized learning experience (Ho, 2023; McLennan & Keating, 2008).

Formative communication and assessment are recurrent features of many WIL subjects, with the opportunity to undertake demanding academic tasks that often result in students feeling challenged, and at times, stretched, in terms of their capabilities (McNamara, 2013). Strong support systems provided through academic mentors, administrative support, and in some cases, funding and scholarship opportunities, adds to a communal sense of endorsement from the university community.

A key feature of WIL, that may impact engagement, is the uncertainty that students can experience. This arises when the scope and/or goals of the WIL project are ambiguous, complicated, or unpredictable; when the information that is required to achieve the project goal is not available, or not consistent; and/or when students feel insecure in their state of knowledge, and do not believe that what they have learnt so far is relevant to the problem at hand (Brashers, 2001). Uncertainty is mainly a self-perception issue. In other words, students who believe that they are uncertain about something perpetuates their uncertainty, even though they have more information about the situation than any other individual.

At the commencement of a WIL experience, it can be observed that students may aim to reduce uncertainty through tactics that help them to predict the behaviours of others (and themselves) upon their first encounter (Berger & Calabrese, 1974), and then, they learn to manage this uncertainty as they progress through the WIL experience (Bylund et al., 2012). However, assumptions that students are always motivated to reduce uncertainty, and that it can be reduced (Knobloch, 2008) may be misguided, as there are some who actually welcome this condition, and see it as an opportunity for them to shape the experience in a way that would make it more interesting and fulfilling. (Brashers, 2001). An individual’s perception of uncertainty (negative, positive, or neutral) can also change over time, with the capacity to engage with a suite of responses, according to the level of uncertainty that is faced (Larson & Fay, 2016). Helping WIL students to manage uncertainty is an important part of sensemaking, because it develops leadership skills that support them in making sense of, and engaging with, unfamiliar environments (Weick et al., 2005).

Dealing with inflexible university timelines (semester/intake dates), assessment tasks with standardized marking rubrics, and other institutional red tape requires WIL academics to manage communication and master flexibility (Bowyer & Vitale, 2018). A mismatch of graduate employability perceptions and attributes (arising as both technical and communication issues) can be the result of misalignment, and a lack of stakeholder engagement (Smith & Worsfold, 2014).

Particularly since the COVID-19 pandemic, there are calls for the need to adapt and change the way WIL units are taught, designed, and delivered (Schonell & Macklin, 2019). Such settings have a need for a continuously changing curriculum design, in order to meet industry needs, which inevitably, leads to higher workloads for academics. To meet the objectives relating to innovative designs, academics require an entrepreneurial orientation (Bowyer & Vitale, 2018; Watty et al., 2016), which assists universities to adapt their own business models to address the challenges in industry (Bui et al., 2019). Managing stakeholder relationships is achieved by defining roles and objectives for each of the parties involved, ensuring that expectations are conveyed, and relationships are fostered, to ensure long-lasting strategic alliances. Together, these factors are important for the design of innovative WIL education and address the need for academics to adapt to a changing WIL environment. Thus, the discussion that follows helps to describe how change in practice can occur.

Theorizing WIL Challenges

Activity Theory (Engeström, 2001) is a useful lens that helps to describe the reciprocal feedback between WIL knowledge and activity, and explores the differing objectives, roles, and understandings of participants. The parameters and interactions within the WIL activity system for this research are described in Figure 1. This theory is used to frame the WIL challenges faced by academics, and helps to highlight the interactions between individuals and their environments, which are subject to continual transformations and constitute an activity system (Sannino & Engeström, 2018).

The framework helps to uncover the differing objectives, roles, and understandings of participants in the design and delivery of WIL programs. Understanding the WIL activity system involves analysis of how the transformation works in moving the subject (WIL educators) closer to the outcome (innovative WIL designs). Dealing with the contradictions encountered in this structure help by understanding the transformation and development of the WIL activity system. The contradictions are described by Engestrom (2001), in terms of levels.

First level contradictions are internally focused within the activity-system parameters. In this paper, they are defined by new WIL processes that create tensions by impacting the individual academic workloads, or established communication protocols, with students and industry.

Second level contradictions occur between activity-system parameters, and are described in this study as the communications between the institution, academics, industry, and students, along with how technologies mediate this activity. All members in the community are affected differently. Academics' efforts in achieving a successful outcome can be hampered by industry responses, institutional constraints, or student responses. This encompasses the rules, which can include legislation that constrains WIL activity periods for international students, or industry specific regulations. In addition, the division of labour has posed tensions in changing responsibilities for WIL administration, between university academic units and centrally located services.

Third level contradictions relate to the move to a more advanced object; that is, more innovative WIL designs. This tension is demonstrated in the ongoing changes that universities undertake to try new structures and processes, in attempts to improve efficiency and introduce new technologies that enhance communications, or address increasing demands for WIL activity.

The fourth level contradictions occur when tensions arise between different activity systems. For example, in this study, these could describe tensions between the university-focused activity system and the industry focused activity system, with the industry activity system being

influenced by policy, directions, and opportunities, or constraints, for hosting WIL activity.

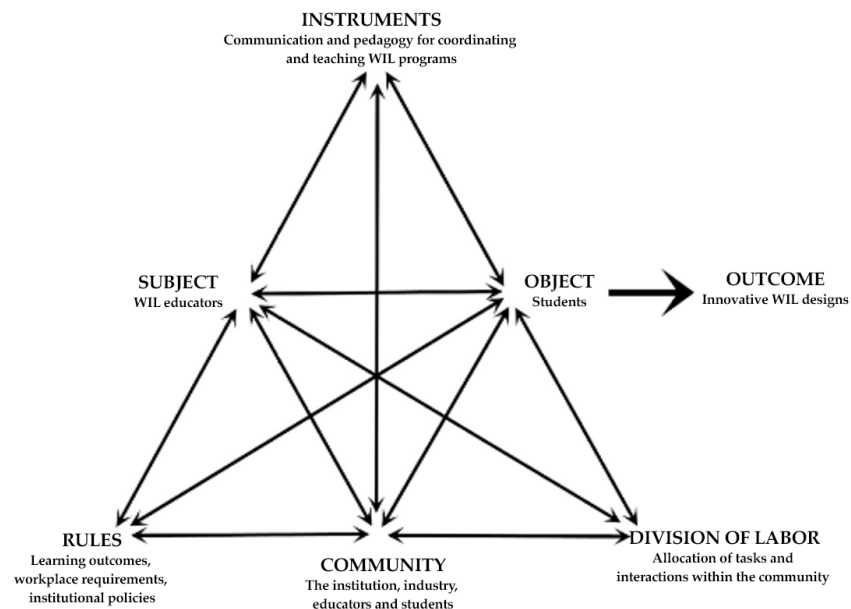


Figure 1: WIL activity system.

A shared conversation through the cross-institutional collaboration and sharing of experiences and activities is now presented. Through the examination of current practice, analysis of contradictions and expansion of collective expertise, the WIL educators negotiate and form different perspectives and conceptualizations of the emerging WIL innovations.

Method

This project was initiated when six of the authors reflected on their diverse academic WIL experiences between their four institutions. Two of the academics recruited a further WIL academic from their own institution, and two further authors, one from business and another from education, were subsequently recruited to the team to provide independent oversight. All academics on the project had a keen interest and/or experience in WIL programs/activities within a university context. Utilizing a Delphi methods' approach (Skulmoski et al., 2007), six of the academics were invited to independently provide a written narrative on their individual institutional experiences and challenges with WIL. There were no guiding prompts, however, the focus was on processes and activities that achieve innovative WIL design outcomes.

To address any concerns of bias, analysis of the narratives was undertaken by the remaining two independent academics on the research team. Coding of the data was done using NVivo v12 (Bazeley & Jackson, 2013). Inductive coding involved attaching meaningful labels (nodes) to phrases within the narratives. The nodes helped to identify textual sections in the case studies to develop themes. A deductive approach was then used to connect to the WIL activity system outlined in the theoretical framework.

Analysis of the emerging activity system involved examining perceptions and communications among participants identified in the case studies, and noting contradictions and confluences in the design and delivery of WIL programs. The significant emerging themes

identified in the analysis were:

1. *Administration support for WIL placement*
2. *Managing expectations and perceptions*
3. *Overcoming learning challenges*
4. *Stakeholder engagement*

Each theme was analyzed by drawing on data from the institutional narratives, which, in the following section, are identified as University A, B, C, or D for anonymity purposes.

Discussion

The experiences of the authors from four different Australian universities are drawn upon to showcase some of the innovative approaches taken to embed WIL in accounting education. The academics' narratives reflect an accounting/financial planning discipline context, as the participants are accounting/financial planning academics. These participants had specific issues to explore, while leaving space for describing their individual experiences and associated meanings. Thus, a rich conversation of the different approaches and incidents with the individual WIL programs was provided. The nature and diversity of the institutions where the academics are from, and the respective WIL activities reflected on, is shown in Table 1.

Table 1: Contributor profile.

	University A	University B	University C	University D
WIL Academics (6)	1 female permanent academic with 5 years of experience in WIL-based teaching	2 female permanent academics with 10 years of experience in WIL-based teaching	1 female, WIL teaching specialist, 10 years of experience in WIL-based teaching. 1 male, academic, 8 years of WIL experience	1 male, 3 years of experience in WIL-based teaching
Career	Undergraduate	Postgraduate	Postgraduate	Undergraduate
Type of university	Dual sector (HE/VE)	HE only	HE only	HE and a pathways college
Type of WIL activity	Co-op/WIL program embedded as 3rd year of four-year accounting degree. Students go on placement with a co-op/WIL employer in an accounting-related role	Core internship unit of the Master of Business Administration. Project-style subject, where students undertake research in their chosen field	Business practicums - academic works with host organization to turn current business problem into a project to be completed by a team of students	Financial planning (FP) taught across two FP courses. Industry representatives attend workshops and student panel presentations.
Assessment	Business report determined by employer in conjunction with academic mentor. Submission of LinkedIn page or equivalent online portfolio	Academics work with host organization to identify a project to be completed by individual students. Student do 120 hours with industry partner, then a verbal presentation to client, written report and reflective journal	An academic works with a host organization to turn a current business problem into a project to be completed by a team of students. Project tends to be multi-disciplinary rather than accounting-based	Intro FP uses industry software to construct a Statement of Advice (SoA). Advanced FP students participate in workshops with financial planners, and present the SoA to a panel of academics and industry representatives
Duration of WIL student contact	9-12 months	6 months a total of 20 weeks	Four weeks including two-week (in-host) business practicum	5 months
Student cohort	Approximately 58 undergraduate students per year. Approx 97%	Approximately 30 postgraduate students per rotation. Students	Approximately 120 postgraduate students per year (i.e. 4 students	Intro FP, approximately 250 students per year. Advanced FP

	domestic and 3% international students. 36% female and 64% male students (2-year average).	comprised of 80% international and 20% domestic. Equal numbers of male and female students.	per team / host). 20% domestic and 80% international students. 70% female and 30% male students.	approximately 75 students per year. About 60% domestic and 40% international students. 60% male, 40% female students.
Average WIL time commitment by academic mentor	Approximately 3 hours per week for 12 weeks that includes meetings with students and workplace supervisors, marking assessments, resolving queries, and reporting issues to WIL coordinator	Online and face to face meetings 3 hours per week over 20 weeks. Marking, resolving queries, and reporting issues to WIL coordinator. Increased workload at beginning and end of internship	Approximately 20 hours per team supervised (excluding sourcing projects which is done by the subject coordinator and business development staff)	Approximately, 1-2 hours per week over 11 weeks in addition to the liaison with industry partners, and supervising team, activities in industry workshops

Administration support for WIL placement

This theme reflects on institutional systems and the processes that are used to manage WIL activity, and contrast approaches, exploring tensions or contradictions across organizations. Statements from the participants provide insights into the diversity of institutional operations.

The ebb and flow of bureaucratic resourcing practices between those that are centralized or distributed affects the operations of coordinating WIL activity. The development of personal relationships with industry is often the preferred means of establishing and maintaining effective WIL practice. This draws on individual academic knowledge and expertise of the discipline, and the shared understandings between academics and industry for connecting student learning outcomes with industry expectations. This is reflected in the comments below, albeit with an air of resignation that resourcing constraints influence academic practice through a consideration of workloads:

The academic mentor went out to visit the co-op students. He developed long-standing relationships with co-op employers, where they knew him very well and likewise, he knew them very well.

The rapport and long-standing relationship developed by having one academic mentor, as opposed to many, has diminished – which is probably a sign of the times – where that personal relationship is superseded by the workload demands on academics.

However, changes in administrative processes to a centralized approach also had benefits. Centralization eliminated potential employers from being contacted multiple times by the same university. The consistency of communication is described in the statement below:

Initially, co-op managers were very protective of the employer contacts they had for the program/s in their school. However, centralization meant that all contacts were shared.

Having a centralized WIL database was also the approach adopted by other universities (Bates 2011). In addition to a centralized database, a central repository for pedagogical designs can also be maintained (Bates 2011).

The following statements indicate that there were contradictions about the effectiveness of different modes of communication for coordinating WIL activity:

The course website was the main communication channel between students and course coordinators. In addition, emails and discussion boards were used to provide instructions, clarifications of learning issues, related materials, etc., throughout the semester.

Face-to-face communication in class was the most effective channel, because it provided response immediately, which was helpful in clarifying important issues.

Managing expectations and perceptions

Understanding expectations and perceptions is important for successful implementation of WIL. Phillips (2014) recognizes the benefits of hosting WIL to organizations and the industry more widely. Host organizations consider lack of resources, space, and time as key barriers for participating in WIL programs, yet employers' contribution in implementing WIL is critical for increasing graduates' work readiness. This theme contrasts the perceptions of students, industry, and academics about the WIL activity, and identifies where there are tensions and conflicts in communication about expectations.

The data indicates conflicting assumptions about the administrative processes in place, the clarity of purpose of WIL activity, and the associated assessment that was communicated to the students and industry:

One student said that they thought that this would be valuable work experience, and had they known that there was an assigned project they would never have enrolled in the subject. Another student, who was aware that a project was expected to be completed, highlighted that the employer was not aware of this. The student stated that when they first started the internship, they were doing routine jobs and commented that they thought the company's idea of internship was different from what the university expected.

This was also highlighted by the following statement which describes student assumptions of what constitutes a valued WIL activity:

Students' expectations about what constitutes a valuable learning experience can shape their initial reactions to placement organizations. Many students assume that they need to be placed with a large organization, a household name, for the experience to translate into a valuable addition to their resume. Academics need to bring the focus back to the achievement of learning outcomes, rather than the brand recognition of the host.

There was also tension in workplace cultural expectations amongst the cohort:

Given a large proportion of students are international students, they are typically less familiar with the Australian work environment, which is typically less formal and hierarchical than what they had envisaged.

Students can improve their learning by adapting to the work-integrated learning environment. Gaining experience and knowledge of processes, protocols, and workplace culture is crucial in interacting with others and participation in the community (Haigh & Fleming, 2018).

The motivations and expectations of students for an aligned WIL experience posed contradictions, in that students did not initially appear to value WIL as an important component of their learning. This was exacerbated through pre-conceived notions of what working in industry involved:

Some students didn't want to pursue a career in financial planning; therefore, they wanted just to pass the unit. Therefore, convincing students to undertake extra work was challenging, initially. This was a completely new experience for most of the students because they didn't have any work experience in the financial-planning industry. In the end, the students valued the competencies they gained.

Learning in a work-integrated environment occurs when students work alongside industry professionals. Students are the ones who benefit the most among the stakeholders in workplace learning exercises, and they gain the competencies and skills needed to enhance their employability (Coll et al., 2009). The overall contradictions between academic values and industry-workplace values are demonstrated in the statements below. They provide examples of conflicting ideas about what knowledge and skills should be evidenced in graduate learning outcomes, and how these shape WIL design and assessment:

The industry's point of view on required skillsets of an employable graduate provides an important insight towards developing an appropriate learning and teaching strategy. For example, the financial-planning industry demands more soft skills such as communication, teamwork and adaptability than technical skills from a candidate, when they recruit for a service job (e.g., financial planner). They believe most of the fresh graduates lack soft skills necessary to deal with their customer base. Therefore, candidates are distinguished and ranked based on the level of soft skills they possess.

Learning objectives are largely aligned with the broader themes of universities. For example, lifelong learning could be a major graduate quality, along with learning objectives of units developed. In the case of industry accreditations, universities are required to satisfy the criteria of the accreditation body.

The contradictions of differing expectations explored in this theme are summed up nicely by this statement, and provides a challenge to academics in the development of the curriculum:

... there can be a mismatch between the expectations of academics and the industry in terms of skill sets, that graduates need to have. Therefore, it is important that academics consider [the] development of soft skills through designing and developing appropriate assessments, as with developing technical skills.

At the same time, it is important to resolve these mismatches in order to meet the expectations of students, who have indicated that they expect to be employable once they complete their studies (Tymon 2013).

Overcoming learning challenges

WIL-based learning provides students with opportunities to define their identities through engaging experts in the industry. Such an experience helps them to better understand intended future professions (Jackson, 2017), which is a challenging learning exercise to overcome. This theme examines the obstacles of student engagement and learning in WIL activities, how university processes prepare students for their industry activities, and how communications compound, or mitigate, this activity.

Differences between teaching environments and workplace settings, as well as those in the technologies being used, cause tensions in optimizing WIL-activity outcomes. However, in the context of the program system, transformational practices of redesigning learning and assessment assignments, as indicated in the statements below, successfully move the students toward the desired outcome:

Teaching aids available in standard classroom environments are different to facilities available in working environments. In [the] WIL approach, it is essential that both academics and industry partners sit together to design and prioritize learning and assessment activities considering those differences in facilities and technologies.

Another challenge is overcoming the differences in technology used in delivering unit content. Industry uses various software with different versions, and it is not possible to train students in every version. One potential approach may be to teach students key components of comprehensive financial advice, which could be customized based on software. Then, it is important for academics to focus on designing assessments to achieve this objective.

Sometimes the challenges are difficult to address, and without the opportunity to draw on additional resources, provide required flexibility in curricular options, or allocate additional time, these obstacles can prevent the achievement of desirable WIL outcomes:

Being uncomfortable with projects that are outside their area of study (e.g., a marketing project for an HR student)

Projects that are somewhat ambiguous and fluid also pose a challenge to many students.

Knowing when to ask for help: Some students will ask for help before trying to solve the problem/issue themselves, whereas others will not ask questions or seek clarification when it is appropriate to do so.

... students felt that this was beyond their abilities, with one commenting that working on a project as a consultant was beyond the expectation, and that they did not have enough experience.

One approach to mitigate these challenges is to front-load the support provided to students via an induction or boot camp held on campus.

We run a boot camp just before students start their in-organization experience at their respective host companies (i.e., industry partners). During the boot camp, workshops that cover topics, such as building professional relationships in Australia, project management basics, available library resources and teamwork, and conflict resolution, have been found to be useful to prepare students for what lies ahead. In addition, it is important for the academics to have a reasonably clear perspective on the various projects' objective and scope going into the boot camp (which is of course, is subject to change over the course of the project). This would allow student teams to start creating a project research proposal during the boot camp. Students can then deliver a presentation, and receive feedback from the academic and peers on the last day of boot camp.

The role of the WIL educator is critical to achieving successful, aligned learning outcomes. This can include incorporating aspects of WIL into the curriculum of other subjects that are taught:

We commenced cultivating a relationship with a non-for-profit organization, with the aim of getting them on board as a WIL industry partner. However, when they presented us with their activity-based costing system project, we quickly realized that it was not suitable for the WIL program, given its fairly technical nature. Instead, the project was better suited to be tackled as a group assignment in an advanced cost-management subject. The assignment design was based on the host's original project, who were then invited them to present the context of the assignment to students. Some of the students in the class were then given the opportunity to present their recommendations to the host organization, at the end of semester.

Stakeholder engagement

Academics and students believe that hosting students in WIL programs benefits industry. However, host employers do not always share this view, particularly regarding international students. Lack of opportunity for networking, logistical barriers, and host organizations' concerns on cultural and communication differences remain challenges for stakeholder engagement (Jackson, 2016).

This theme focuses on the communications between stakeholders, and examines conflicts, workload, and available technologies to manage and deliver WIL (simulated or real), along with the communication channels and tools available. It includes students who are focused on course obligations, assessment criteria, work-based requirements, and any conflicts between expectations of the institution, industry, and their actions. It also reflects the changing roles and responsibilities for managing and delivering WIL from an academic perspective, as well as industry engagement in establishment and maintenance of WIL activity.

Effective and ongoing communication with industry partners are critical for achieving successful WIL activity. The iterative approaches described below encompass all the parameters in the WIL activity system, and address contradictions and tensions to achieve innovative WIL designs and positive learning outcomes:

Implementation of a WIL program may need several rounds of meetings between academics and industry partners. These meetings help iron out potential differences in expectations between industry partners and academics. It is important to get industry partner's guidance and contribution for designing the assessment activities, in order to achieve learning objectives.

It is important to ensure that the industry partners are willing to commit time and resources to the project, and have a meaningful project that exposes students to different facets of the organizations. One important factor that has been found to affect industry partner's commitment to the WIL program is whether the host individual in charge of the project has an interest in mentoring and coaching others. Finding hosts who have an intrinsic interest in mentoring maximizes the learning experience for students, and reduces the reluctance of taking in students.

Collaboration between industry and academics in setting projects ensures that the interests and outcomes are aligned, creating greater value for students and the industry partner.

Another important stakeholder group to consider, as highlighted in prior research, is the government. This is because governments are interested in ensuring there is an alignment in the demand versus supply of skills in the economy, thus reducing the shortage of critical skills and the unemployment rate (World Bank Group, 2012; Orrell, 2004).

Technology drivers have had a growing impact in communicating and coordinating WIL among stakeholder groups. With the significant shift to online activity due to COVID-19, all aspects of using technology for teaching, coordination, and even workplace WIL activity has significantly changed. The statements below indicate that specific cohorts have communication-medium preferences. However, for stakeholders, the impact of COVID-19 has meant that pragmatic solutions for activities have overtaken any specific preferences, and in many ways, this has accelerated the exploration of innovations in WIL. This includes development of simulated WIL, which had significant presence prior to COVID-19, and which will subsequently need to be explored and supported to a much greater extent moving forward.

The statements below are useful for reflecting on the capacity for institutions to pivot toward addressing the learning preferences of students. They indicate that flexibility and responsiveness can future proof WIL delivery options, not only for student preferences, but in the face of significant global factors:

Although the literature suggests that today's students prefer the use of technology as a means of communication, we found...the students wanted face-to-face meetings [rather than Zoom], and were happy to drive to our campus to achieve this objective.

[other] factors are likely to influence choice of mode of communication. For example, international students show the least amount of interaction in classrooms. This could be due to stage fright, language barrier. Also, some students choose not to express ideas in public ... it is quite challenging to position students individually, or mix them in groups based on communication skills and mode of communication used in a particular WIL environment.

[There is] some resistance to learning new mode of communication ... students would prefer email communication, rather than learning systems-based mode of communication. ... sharing questions, experiences etc., through learning system-based discussion boards.

Academic workloads are always a factor for initiating any innovation. Teaching modernizations require a process of trial and error, and implementing new ideas are time consuming, with the risk of unsuccessful outcomes. Innovating is not always appreciated by students, who seek defined processes and outcomes in their course structures (Bovill et al., 2016; Keeney-Kennicutt & Gunersel, 2008). This can result in negative student-survey responses, and is difficult for academics, who rely on these assessments for promotions and teaching awards. Subsequently, this can provide significant disincentives for teachers to innovate, as is reflected in the statement below:

As an academic, it may be somewhat challenging to adapt to certain requirements of a WIL environment. For example, an academic who teaches financial planning units may need to learn new skills, such as using financial planning software in order to guide students initially. To be an effective mentor, academics need to be updated with industry developments. Extra activities and efforts beyond the normal workload related duties are necessary to run a WIL program successfully. Therefore, academics need to negotiate workload allocations to be able to fulfil the requirements, since passion for implementing a WIL program alone would not guarantee the desired results.

Conclusion

WIL programs have been designed for students to gain hands-on applied and work-related experiences in order to develop skills that induct them into disciplinary and professional practices and culture, which provides productive and authentic representations of learning. This preparation for the world of work before graduating and entering the workforce can be a challenging pedagogical and administrative activity for students, educators, and stakeholders. The nature and objectives of these programs and their associated challenges provide unique challenges. These include the shifting allocation of budgets for industry liaison, the expectations of students and employers for WIL activity, and even understanding what skills are needed for future careers. The factors that impact the design of innovative WIL education include:

1. *Administrative systems* that enable defined and consistent communication among staff, students, and industry stakeholders to ensure that policy requirements are met, and that learning outcomes are achieved through WIL activity.

2. *Clear expectations and perceptions* to ensure that organizations understand their responsibilities when hosting students for WIL. This also includes clearly communicating requirements, and ensuring that academics and students have common understandings.
3. *Learning challenges* that may inhibit effective engagement in WIL activity and require implementing strategies that enhance student engagement and learning. This includes ensuring that there are university processes, as well as learning and assessment activities that suitably prepare students for WIL.
4. *Stakeholder engagement* that requires consistent communications and management of workloads, including resources for industry, students, and academics. This includes understanding cultural differences and the availability of relevant technologies.

In contributing to practice, the challenges identified in this study have included finding the appropriate set of tasks or projects that offer the right level of difficulty and complexity to a diverse cohort of students, while at the same time, dealing with inflexible university timelines, assessment criteria, and other bureaucratic requirements. In addition, managing communication with, and expectations of, a broad set of stakeholders is important to ensure that students gain the most out of such learning initiatives. The discussion highlights the discomfort that students feel when being placed in uncertain environments, and asked to engage in activities that they do not feel they are ready for. Exploring WIL in an accounting discipline highlights the expectations of industry for technical skills, which does not always match HEs theory-driven pedagogy. To overcome these challenges, academics require skills to negotiate and build strong industry relationships to manage expectations of both industry participants and students. Academics should also be able to recognize the need to provide students with learning support, providing just the right amount to ensure that while the outcome meets the expectations of industry participants, meaningful learning still takes place. Finally, the academic needs to be flexible and have strong communication skills to manage and navigate unexpected changes, including at a global level, the impact design of WIL tasks, workloads, diverse tools, software, and the skillsets required in the delivery of WIL programs. This includes attention to the well-being of students, and the need to prepare them for the uncertainty that they will undoubtedly experience.

In terms of contributions to a model, the use of activity theory, provides a useful tool to analyze the activity system in each of the four university settings. The differences between each of these is apparent. This could be partially due to the nature of the institutions involved in the study, but also, the precedence given to each of the activity components (object, community) in the author narratives, which were motivated by the inductive approach to data collection and analysis. In addition, this study has largely contrasted each university as a single object that motivates its own activity system. Whereas, if a more networked view and multi-concept analysis of the four institutions was undertaken (Engestrom, 2001), then, new theorization opportunities would become available (Colasante, 2024). This shared vision can then support the contradictions experienced, and foster space for collective resourcing and ultimate change.

Authors' Bios

Mark O'Rourke is an associate professor and associate dean of learning and teaching in the School of Education at RMIT University, Melbourne, Australia. He has held roles in the university sector, encompassing director of learning and teaching, chair academic boards, senior manager, associate director, and head of school. Mark's research expertise focuses on how the design of games-based learning activity systems adds meaning and relevance to education and training

outcomes. Mark is a Fulbright Professional Scholar, having researched immersive training technologies with the Institute of Creative Technologies at the University of Southern California in Los Angeles. He has presented at national and international conferences and has received numerous awards.

Gillian Vesty is a professor and deputy dean L&T in the School of Accounting, Information Systems, and Supply Chain at RMIT University, Melbourne, Australia. She is a member of CPA Australia, and a board member of the IMA ANZ chapter. Her research interests seek to align management accounting's performance evaluation, and strategic budgeting, with social impact research that address health and well-being challenges from an environmental and value-based healthcare perspective. She is also an active board member of Games for Change, Asia Pacific, fostering the nexus between simulated artefacts in the form of serious games to provide a powerful vehicle for ongoing experimental research.

Sonia Magdziarz worked in the insurance industry, then undertook further study in education, after which she worked in the TAFE sector for approximately nine years in a combination of teaching and program co-ordination roles. She also worked in the private sector, undertaking bookkeeping and accounting roles, while doing sessional lecturing and tutoring in the higher-educational sector prior to joining RMIT University as a lecturer in accounting in 2004. Sonia has a PhD in accounting education, and a strong interest in this field, accounting history, and the scholarship of teaching and learning.

Priyantha Mudalige is a senior lecturer and the course coordinator for accounting and finance at the University of New England in Armidale, Australia. With over 14 years of experience, he has taught accounting and finance courses at both undergraduate and postgraduate levels. Priyantha is also an active researcher, focusing on comprehensive studies in capital- market microstructure and corporate finance.

Connie Vitale is a senior accounting lecturer at Western Sydney University. Connie is the founding director, manager and supervisor of the Western Sydney University Tax Clinic, established in 2019, specializing in work-integrated learning. The main objective of this clinic is to bridge the gap between theory and practice for students considering taxation as a future career path. Connie brings over 30 years of professional tax experience and 20 years of higher-education teaching into the clinic, in order to achieve these objectives. Her research expertise includes work-integrated learning, the student experience, as well as tax and financial literacy.

Dorothea Bowyer is a senior lecturer at Western Sydney University (WSU) School of Business, since 2004. Her research is threefold, focusing on circular economy and sustainability reporting in the private and public sector, gender equity in higher education, and graduates' career readiness. She has lectured and coordinated subjects at the undergraduate and postgraduate levels, implemented a WIL Project and research-based learning initiative, and taught as a guest lecturer in Germany and Italy.

Sujay Mair is a senior lecturer at the Department of Accounting, in the Faculty of Business and Economics at University of Melbourne, Australia. Prior to joining the university, he was a management consultant and fixed-income portfolio manager. Sujay graduated with a PhD from

the University of Melbourne in 2018. His research interest lies in the area of performance management and incentive systems.

Sharon Soltys is a lecturer, specializing in work-integrated learning at the University of Melbourne, Australia. In addition to work-integrated learning, she has also lectured and coordinated various accounting subjects. Prior to joining the higher-educational sector, she held various accounting positions in industry, including serving as a financial controller. She is currently undertaking a PhD in work-integrated learning at the University of Southern Queensland in Australia.

References

- Bailey, T., Hughes, K., & Barr, T. (2000). Achieving scale and quality in school-to-work internships: Findings from two employer surveys. *Educational Evaluation and Policy Analysis*, 22(1), 41-64.
- Bates, M. (2011). Work-integrated learning workloads: The realities and responsibilities. *International Journal of Work-Integrated Learning*, 12(2), 111.
- Bazeley, P., & Jackson, K. (2013). *Qualitative data analysis with NVivo*. Sage Publications Ltd.
- Beard, C., & Wilson, J. P. (2002). *The power of experiential learning: A handbook for trainers and educators* (ED463931). ERIC. <https://eric.ed.gov/?id=ED463931>
- Berger, C. R., & Calabrese, R. J. (1974). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human communication research*, 1(2), 99-112.
- Biggs, J. (1999). *Teaching for quality learning at university*. SRHE and Open University Press.
- Billett, S. (2004). Workplace participatory practices: Conceptualising workplaces as learning environments. *Journal of Workplace Learning*, 16(6), 312-324.
- Bovill, C., Cook-Sather, A., Felten, P., Millard, L., & Moore-Cherry, N. (2016). Addressing potential challenges in co-creating learning and teaching: Overcoming resistance, navigating institutional norms and ensuring inclusivity in student-staff partnerships. *Higher Education*, 71(2), 195-208.
- Bowyer, D., & Vitale, C. (2018). What drives university academics to be entrepreneurial? *e-Journal of Social & Behavioural Research in Business*, 9(1), 10-36.
- Brashers, D. E. (2001). Communication and uncertainty management. *Journal of communication*, 51(3), 477-497.
- Bui, H. T., Nguyen, H. T., & Cole, D. (2019). *Innovate higher education to enhance graduate employability: Rethinking the possibilities*. Routledge.
- Bylund, C. L., Peterson, E. B., & Cameron, K. A. (2012). A practitioner's guide to interpersonal communication theory: An overview and exploration of selected theories. *Patient Education and Counseling*, 87(3), 261-267.
- Campbell, M., Russell, L., Smith, L., McAllister, L., Tunny, R., Thomson, K., & Barrett, M. (2019). *A framework for assuring quality in work integrated learning*. <https://research.qut.edu.au/wilquality/wp-content/uploads/sites/261/2019/12/FINAL-FRAMEWORK-DEC-2019.pdf>
- Coates, H. (2007). A model of online and general campus-based student engagement. *Assessment & Evaluation in Higher Education*, 32(2), 121-141.
- Coll, R. K., Eames, C. W., Paku, L. K., Lay, M. C., Hodges, D., Bhat, R., Ram, S., Ayling, D., Fleming, J., Ferkins, L., Wiersma, C., & Martin, A. (2009). An exploration of the pedagogies

- employed to integrate knowledge in work-integrated learning. *Journal of Co-operative Education and Internship*, 43 (1), 14–35.
- Colasante, M. (2024). Five methodological dilemmas when implementing an activity theory transformative intervention in higher education. *Teaching in Higher Education*, 1736-1756. <https://doi.org/10.1080/13562517.2024.2367655>
- De la Harpe, B., & David, C. (2012). Major influences on the teaching and assessment of graduate attributes. *Higher Education Research & Development*, 31(4), 493-510.
- Dean, B. A., & Campbell, M. (2020). Reshaping work-integrated learning in a post-COVID-19 world of work. *International Journal of Work-Integrated Learning*, 21(4), 355-364.
- Deloitte. (2015). *Mind the gaps the 2015 Deloitte millennial survey*. <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/gx-wef-2015-millennial-survey-executivesummary.pdf>
- Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14(1), 133-156.
- Fleming, J. & Haigh, N. J. (2018). Using sociocultural insights to enhance work-integrated learning. *Higher Education, Skills and Work-Based Learning*, 8(4), 395-407. <https://doi.org/10.1108/HESWBL-09-2017-0071>
- Freudenberg, B., Brimble, M., & Cameron, C. (2011). WIL and generic skill development: The development of business students' generic skills through work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 12(2), 79-93.
- Hay, K. (2020). What Is quality work-integrated learning? Social work tertiary educator perspectives. *International Journal of Work-Integrated Learning*, 21(1), 51-61.
- Ho, C. (2023). Fink's taxonomy applied to work-integrated learning: An 'audit' of success strategies accounting students employ during recruitment. *International Journal of Work-Integrated Learning*, 24(1), 1.
- Jackson, D. (2015). Employability skill development in work-integrated learning: Barriers and best practice. *Studies in Higher Education*, 40(2), 350-367.
- Jackson, D. (2016). Deepening industry engagement with international students through work-integrated learning. *Australian Bulletin of Labour*, 42(1), 38-61.
- Jackson, D. (2017). Developing pre-professional identity in undergraduates through work-integrated learning. *Higher Education*, 74(5), 833-853.
- Keeney-Kennicutt, W., & Gunersel, B. (2008). Overcoming student resistance to a teaching innovation. *International Journal for the Scholarship of Teaching and Learning*, 2(1), n1.
- Khampirat, B., & McRae, N. (2016). Developing global standards framework and quality integrated models for cooperative and work-integrated education programs. *Asia-Pacific Journal of Cooperative Education*, 17(4), 349-362.
- Knobloch, L. K. (2008). The content of relational uncertainty within marriage. *Journal of Social and Personal Relationships*, 25(3), 467-495.
- KPMG. (2017). *Meet the millennials*. <https://home.kpmg.com/content/dam/kpmg/uk/pdf/2017/04/Meet-the-Millennials-Secured.pdf>
- Larson, J. M., & Fay, M. (2016). Uncertainty management and sensemaking as precursors to transformative learning in an international immersion service-learning experience. *International Journal for the Scholarship of Teaching and Learning*, 10(1), n1.
- Lasen, M., Evans, S., Tsey, K., Campbell, C., & Kinchin, I. (2018). Quality of WIL assessment design in higher education: A systematic literature review. *Higher Education Research & Development*, 37(4), 788-804.

- Leong, R., & Kavanagh, M. (2013). A work integrated learning (WIL) framework to develop graduate skills and attributes in an Australian university's accounting program. *Asia-Pacific Journal of Cooperative Education*, 14(1), 1-14.
- McLennan, B., & Keating, S. (2008). Work-integrated learning (WIL) in Australian universities: The challenges of mainstreaming WIL. ALTC NAGCAS National Symposium,
- McNamara, J. (2013). The challenge of assessing professional competence in work integrated learning. *Assessment & Evaluation in Higher Education*, 38(2), 183-197.
- Orrell, J. 2004. Work-integrated learning programmes: Management and educational quality. In *Proceedings of the Australian Universities Quality Forum 2004*, 1–5. AUQA Occasional Publication.
- Patrick, C.-j., Peach, D., Pocknee, C., Webb, F., Fletcher, M., & Pretto, G. (2008). *The WIL (Work Integrated Learning) report: A national scoping study*. Queensland University of Technology.
- Peach, D., Cates, C., Jones, J., Lechleiter, H., & Ilg, B. (2011). Responding to rapid change in higher education: enabling university departments responsible for work related programs through boundary spanning. *Journal of Cooperative Education and Internships*, 45(1), 94-106.
- Phillips, K.P.A. (2014). Engaging employers in work integrated learning: Current state and future priorities.
- Reeders, E. (2000). Scholarly practice in work-based learning: Fitting the glass slipper. *Higher Education Research & Development*, 19(2), 205-220.
- Rowe, A., Mackaway, J., & Winchester-Seeto, T. (2012). 'But I thought you were doing that'—Clarifying the role of the host supervisor in experience-based learning. *International Journal of Work-Integrated Learning*, 13(2), 115.
- Sannino, A., & Engeström, Y. (2018). Cultural-historical activity theory: Founding insights and new challenges. *Cultural-historical psychology*, 14(3), 43-56. doi:10.17759/chp.2018140305
- Schonell, S., & Macklin, R. (2019). Work integrated learning initiatives: Live case studies as a mainstream WIL assessment. *Studies in Higher Education*, 44(7), 1197-1208.
- Schullery, N. M. (2013). Workplace engagement and generational differences in values. *Business Communication Quarterly*, 76(2), 252-265.
- Skulmoski, G. J., Hartman, F. T., & Krahn, J. (2007). The Delphi method for graduate research. *Journal of Information Technology Education: Research*, 6(1), 1-21.
- Smith, C., Ferns, S., & Russell, L. (2014). The impact of work integrated learning on student work-readiness.
- Smith, C., & Worsfold, K. (2014). WIL curriculum design and student learning: a structural model of their effects on student satisfaction. *Studies in Higher Education*, 39(6), 1070-1084.
- Tymon, A. (2013), "The student perspective on employability." *Studies in Higher Education*, 38(6), 841-856.
- Watty, K., McKay, J., & Ngo, L. (2016). Innovators or inhibitors? Accounting faculty resistance to new educational technologies in higher education. *Journal of Accounting Education*, 36, 1-15.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16(4), 409-421.
- Wheeldon, A. L., Whitty, S. J., & Van Der Hoorn, B. (2023). Burnt out by underinvestment: Why university professional staff suffer amidst the Australian work-integrated learning system. *International Journal of Work-Integrated Learning*, 24(1), 99.
- World Bank Group (Ed.). 2012. *World development indicators 2012*. World Bank Publications.

