

# Burnt out by underinvestment: Why university professional staff suffer amidst the Australian work-integrated learning system

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Work-Integrated Learning (WIL) is perceived as important by universities and industry for equipping students with employability skills. This study contributes to the literature by using a methodological approach that visualises the sustained underinvestment in WIL by both universities and industry, which leaves professional staff who administer WIL placements with the burden of maintaining and stabilising the WIL system. Consequently, WIL administrators feel burnt out. Through a systems thinking methodology, extant literature is combined with empirical data collected from WIL administrative staff across multiple disciplines at 12 Australian universities. Influence diagramming visualises how WIL administrators are positioned in a burnout loop within a Growth and Underinvestment systems dynamic archetype. As such, no matter how hard WIL administrators strive to deliver quality WIL experiences, their efforts are systemically undermined by an underinvestment in job resources, insufficient industry placement opportunities, unproductive relationships with colleagues, and poor student preparedness for WIL.

Keywords: Professional staff, burnout, systems thinking, Australian universities

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Work-integrated learning (WIL) has a broad impact on students, industry and universities in addressing the employability and preparedness of students to enter employment, and the resilience of the future workforce to face challenges (Ferns & Lilly, 2015; Winchester-Seeto & Piggott, 2020). As such the Australian national WIL agenda is one that universities and government continue to engage with deeply (Cameron et al., 2019; Smith, 2012). WIL incorporates a range of “approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum” (Patrick et al., 2009, p. iv). Government funding and initiatives increase the expectation that all Australian university students should have the opportunity to undertake WIL (Department of Education Skills and Employment, 2021; Universities Australia, 2019). Industry also recognize WIL as an important way to manage future work forces and talent pipelines (Mackaway & Winchester-Seeto, 2018). As such, students see WIL as an important element of skill development and as a way of preparing them for their future careers (Aprile & Knight, 2019). As the number of students desiring WIL increases, the reality of WIL speaks more to a compromised experience, as the delivery of WIL to large student cohorts carries sustainability concerns (Fleming et al., 2018).

While it is well recognized that academics contribute to the administration of WIL, there is an absence of understanding around the experiences of professional staff as administrators of WIL. This study contributes to this gap by visualizing the pressured situation of professional staff who administer WIL amidst the various elements of the wider Australian WIL context. Their niche role within the broader context of university administration is recognized, such that this study refers to them as WIL administrators as they bear the administrative responsibility of delivering WIL experiences for

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Australian university students and for maintaining the administrative aspects of industry partner relationships (Bates, 2011; Clark et al., 2014).

A visualization of WIL administrators' situation is achieved by applying a research methodology that adopts a systems thinking approach to data that is collected from a review of the WIL literature and a sample of WIL administrators. The resulting influence diagram, (Figure 5), aligns with a growth and underinvestment system archetype from Senge et al. (2011), which illustrates how a capability, such as the delivery of WIL placements, is influenced by a range of dynamic and interrelated forces. The influence diagram reveals why WIL administrators experience burnout, and how this is brought about by an underinvestment in WIL by both Australian universities and participating industry partners.

WIL varies from industry placements, internships, simulations, industry projects, laboratory, and fieldwork. All WIL experiences should be purposeful and linked to curriculum and, assessment and involve an industry partner (Edwards et al., 2015; Universities Australia, 2019). Where degree programs undergo external professional accreditation, such as teaching and nursing, placement based models are most common (Birks et al., 2017; Department of Education and Training, 2015). This study claims a holistic view of the overall Australian WIL context. This national level view, along with the systems thinking methodology, makes it appropriate to refer to the wider Australian WIL context as the 'Australian WIL system'.

## LITERATURE REVIEW

The literature review summarizes three key areas pertaining to this study. The diagramming of systems is presented first so that the language of systems dynamics and systems archetypes flows through subsequent sections. Secondly, the importance of WIL and the role professional staff play in administering WIL is outlined. Thirdly, the range of problematic issues with WIL are set out from a thematic reading of the WIL literature. These issues play out in an environment where there is competition for quality WIL placements, and pertain to matters such as, the under valuing of WIL administrator work by university management, the conflict with academics that ensues, the overall unpreparedness of students for WIL, and the commitment shortcomings that industry bring to WIL. Finally, burnout is reviewed in the context of this study, connecting it to systemic features such that the constant inability to achieve one's goals and a sense of hopelessness (through lack of appreciation and support) leads to burnout.

### *Theoretical framework: Systems Dynamics Archetype - Growth and Underinvestment*

Influence diagrams are used to reveal the relationships between different elements of a system, where a system is regarded as a set of interconnected things, coupled together such that they reinforce (escalate – positively or negatively) or balance (regulate) behavior (Senge et al., 2011). The use of these influence diagrams to describe the interconnectedness of variables in a system is acknowledged as an effective sensemaking and engagement device (van der Hoorn, 2020). The term systems archetype is used to identify various recurring patterns of behavior (Senge et al., 2011). The system archetype of growth and underinvestment (Figure 2) is one such pattern, which for information purposes is an elaborate form of the limits to growth archetype (Figure 1) (Senge et al., 2011).

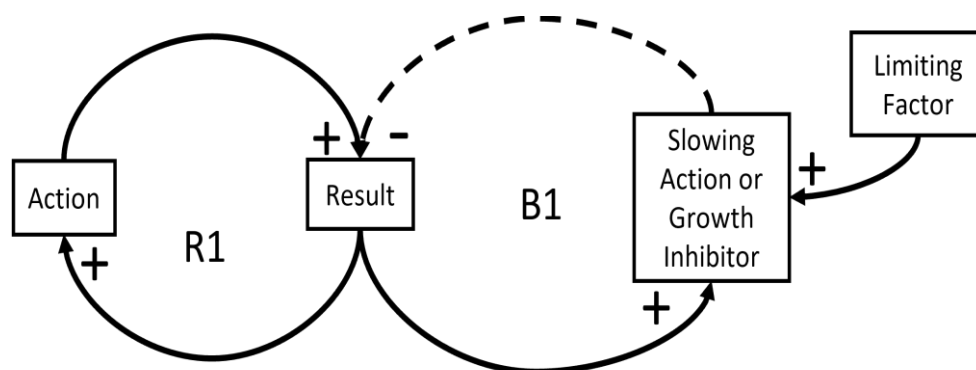
In the limits to growth system (Figure 1), an action produces a result, which in turn positively influences the generative action, potentially producing unbounded growth were it not for the reality of a balancing loop (B1). In this balancing loop, the result interacts with a limiting factor to produce a slowing action/growth inhibitor, which inhibits the growth of the result. In the growth and underinvestment structure

(Figure 2), there is an additional (often more than one) balancing loop (B2), where a perceived need is the product of the slowing action/growth inhibitor interacting with a defined external standard. If this perceived need is thought worthy and responded to, then after a delay an inhibitor avoidance develops that inhibits the growth inhibitor and takes the pressure off the result, enabling it to grow (Senge, 2006).

However, when a growth and underinvestment system becomes stretched beyond its limits to achieve the external standard it can respond in two ways. The first is where the system morphs into a growth and underinvestment with drifting standard structure, where over time the growth inhibitor induces a decline of the external defined standard. Of interest to this study is the second way, where the growth and underinvestment structure compensate by lowering its sensitivity to the defined external standard, and over time this reduction justifies underinvestment and reduces performance even further (Kim & Lannon, 1997; Senge et al., 2011). As Senge (2006 p.151) explains using the eroding goals archetype (Figure 3), this situation is problematic to those who have this compensation imposed upon them., Because one's vision or expectation for one's endeavors differs from the current reality, a creative tension develops, which can be resolved in two ways. Either one takes alternative action, if possible, to bring reality into line with one's ideals (represented by the 'fundamental solution' loop), or one sustains current actions and must somehow cope with the frustration of this situation that leads to an accumulation of emotional tension (shown in the second 'symptomatic solution' loop). The pressures to resolve one's vision-reality gap is relieved by lowering one's sensitivity to one's standards. Caught in this system of pressures, people experience sustained emotional tension in the form of sadness or hopelessness as they continually fall short of their ideals and feel discouraged and disappointed at their effort.

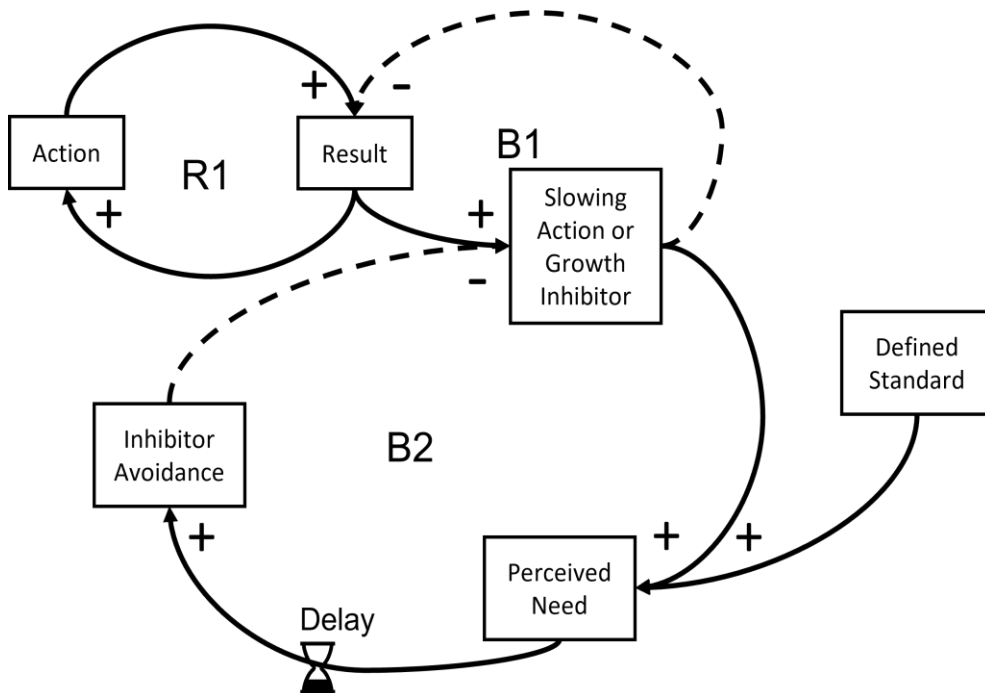
Put simply, growth inhibitors act as a clamp on the system as they slow the growth action. However, to overcome this slowing, the defined standard can be reduced, reducing the gap between the standard and what is achievable. Collectively this sustained state of hopelessness from having to surrender one's standards, without sight of reprieve, is a form of burnout (Charlesworth et al., 1981; Karagöl & Kaya, 2022).

FIGURE 1: Influence diagram of the limits to growth archetype.



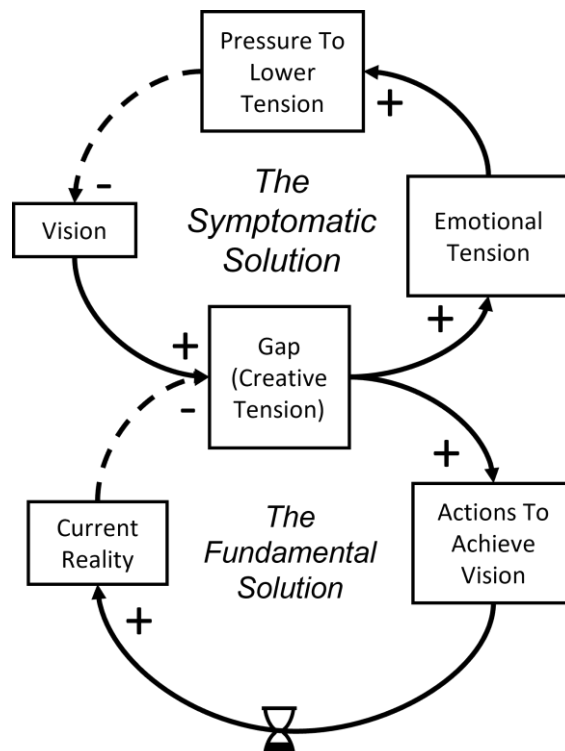
Note. Adapted from *The Fifth Discipline: The Art of the Learning Organization* (Rev. ed., p. 379), by P. M. Senge, 2006, Random House. Copyright 2006 by Random House.

FIGURE 2: Influence diagram of the growth and underinvestment archetype.



Note. Adapted from *The Fifth Discipline: The Art of the Learning Organization* (Rev. ed., p. 389), by P. M. Senge, 2006, Random House. Copyright 2006 by Random House.

FIGURE 3: Influence diagram of the eroding goals archetype.



Note. Adapted from *The Fifth Discipline: The Art of the Learning Organization* (Rev. ed., p. 383), by P. M. Senge, 2006, Random House. Copyright 2006 by Random House.

To comprehend the dynamic aspect of any system one must appreciate that elements of a system can 'feed' information to each other, such that they might produce growth or decline characteristics. However, if the system is sustained (lasts for a while), the elements may move toward a state of balance or equilibrium, where the levels of the element in the system naturally settle at a stable state (Senge et al., 2011, p. 169). It is important to appreciate this concept as a system's 'state of equilibrium' meaning individuals could be kept in a sustained emotional tension – burn out.

#### *The Importance of Work-Integrated Learning and the Professional Staff Responsible for its Administration*

WIL is important to Australian universities. It equips students with employability skills that are intended to increase the likelihood of employment in the longer term (Dean & Campbell, 2020). Furthermore, the Australian Government (2021) is financially incentivizing WIL, setting a course for even more demand (Department of Education Skills and Employment, 2021). While a range of national bodies, including the Australian Higher Education Industrial Association (AHEIA), the Australian Chamber of Commerce (ACCI), the Business Council of Australia (BCA), and Universities Australia all seek to make WIL a key priority, the logistical challenges to delivering WIL must be acknowledged (Kay et al., 2019).

In the increasingly complex and changing working university environment, professional staff are taking on new and greater responsibilities and increasingly complex and specialized work (Graham, 2012; Simpson & Fitzgerald, 2014; Szekeres, 2006). Across the United Kingdom, Australia and the United States, tertiary management is considered a maturing profession that requires expert professional staff with specific sector relevant skills and training (Davis & Graham, 2018; Whitchurch, 2009, 2010). As observed by Szekeres (2011), the current literature regarding professional staff focuses on research administrators, student support staff, and faculty managers. Within the current body of literature, the work experiences of WIL administrators in particular is absent, although Grant-Smith and Feldman (2020) call for the contribution of WIL administrators to be recognized.

#### *Quality Work-Integrated Learning as an Enabler of Positive Outcomes*

WIL helps universities to build industry partnerships and provides market advantage in terms of student attraction (Smith, 2012). Through WIL, university graduates become more skilled and knowledgeable about their chosen profession, as well as being prepared for successful performance in the workplace (Jackson et al., 2016). WIL is also seen by students as an important way to interact with industry, which can lead to enhanced employment opportunities upon graduation (Jackson & Collings, 2017). Students who engage in WIL have a stronger intrinsic goal orientation and motivation in their learning strategies and have a higher grade point average compared to their fellow students who did not participate in WIL opportunities (Drysdale & McBeath, 2018).

WIL projects allow opportunities for students to apply curriculum to 'real world' experiences and workplaces, lending authenticity to their learning (Brewer et al., 2022). Quality outcomes are evident for industry, as WIL is viewed as a way to nurture talent pipelines because it prepares students to be successful in the organisation and reduces hiring risk (Drewery et al., 2020). Students are considered to be better prepared to enter the workforce, which meets the needs of industry in terms of work readiness (Ferns et al., 2016). For primary and secondary School Coordinators, education students attending placements during the 2020 COVID-19 pandemic lockdowns were considered an important support for supervising teachers navigating increased workloads and teaching conditions at this time (Leach & Wheeldon, 2022).

*The Range of Work-Integrated Learning Issues*

For all the good that WIL delivers, there appears to be a range of problematic issues that plague the Australian WIL system, which results in significant tension between the vision and the reality of delivering quality WIL (Bates, 2011). Without the available job resources that increase the capacity to source and deliver quality WIL placements, the system becomes pressurized. Amidst the challenges of sourcing high quality placements there are the exacerbating effects of high levels of competition for available placements (Grant-Smith et al., 2017), which is exacerbated further when industry withdraw placements from the WIL environment due to dis-satisfaction with university support and processes (Effeney, 2019).

Next there is the preparedness of students to undertake WIL. This is an important matter for industry because well prepared students can perform the tasks to acceptable standards required of them during their WIL placements (Cameron et al., 2017; Venville et al., 2021). Screening students to ensure readiness and suitability for WIL placement is also a key risk mitigation strategy for keeping students safe whilst engaging with WIL (Hay & Fleming, 2021). Smith et al. (2016) found that preparation as an aspect of curriculum made a significant positive contribution to the learning outcomes of WIL, and Campbell et al. (2021) included preparation in their development of a quality WIL Framework. But to be prepared for WIL placements many students sacrifice leisure, rest, and social time, while also having to meet pre-placement requirements, such as obtaining necessary licenses (Grant-Smith et al., 2017).

Students may experience financial hardship when they have to forgo paid work in order to undertake WIL (Grant-Smith et al., 2017). They may also experience psychological distress associated with poor performance and suitability, injuries sustained in the workplace, along with conflict with supervisors (Cameron et al., 2017; Effeney, 2019). For some students, they experience an erosion of self-confidence because of the power industry supervisors have over the successful completion of their WIL experience (Aprile & Knight, 2019). International students are particularly impacted when it comes to equity in accessing experiences due to language barriers and cultural differences (Jackson, 2017).

Furthermore, the work of WIL administrators is undervalued. McManus and Rook (2021) found that academics rank administrative assistance as one of the lesser important types of assistance in managing WIL programs. Less than productive relationships can manifest between academics and WIL professional staff, particularly under managerial and centralized conditions where professional staff are separated from academics (Wheeldon et al., 2022). Gander et al. (2019) also points out that professional staff find themselves in challenging power relationships with academics. To highlight this, and although not referring to WIL administrators directly, this lack of credibility is supported by professional staff who describe themselves as feeling invisible, as their work as administrators is not “taken seriously” by their academic colleagues (Akerman, 2020, p. 127). Broadly speaking, there is an “us versus them” hierarchical divide between academics and professional staff (Haski-Leventhal, 2020, p. 78).

Industry compromised experiences are characterized by industry’s inability to provide adequate mentoring and supervision, and they feel unsupported by universities when confronted with a failing student (Yepes-Rios et al., 2016). Situations like these lead to cancelled and postponed placements, and further withdrawal of dissatisfied industry partners from WIL, which is an undesirable and sometimes unavoidable outcome (Effeney, 2019; Grant-Smith et al., 2017). To manage industry’s negative experiences, some WIL administrators use academic selection criteria to ‘risk manage’ against poor student performance. But this effort to showcase the ‘best’ students to local industry is a practice that Jackson (2018) challenges as being inequitable.

Finally, all these WIL issues are framed in a competitive environment and against a vision of a quality standard for WIL placements underpinned by the pedagogical requirement of WIL, which is understandably of most importance to universities. WIL must have strong links to theoretical learning, be authentic in its replication of workplace requirements and expectations, be monitored and evaluated, and be integrated into curriculum so that objectives and outcomes are clearly established (Sachs et al., 2017). WIL needs to be an integrated part of curriculum and not just bolted on (Patrick et al., 2008). What is required is a shared understanding between universities and industry of the meaning and purpose of WIL, as this ensures the supervisory role and what constitutes a quality placement is well understood (Jackson et al., 2016). When WIL is seen as a burden and where allocated supervisors just 'tick a box' without knowledge of the competence of the student (Priksat et al., 2019), these high quality placements become inaccessible.

### *Burnout*

When people become burnt out at work, they become disinterested in making positive contributions (Bakker & de Vries, 2021). Burnout is the psychological response people have as a consequence of their relationship with their work when it involves chronic interpersonal stressors (Maslach et al., 2001; Parker et al., 2021). This response to stressors in the workplace is captured in three dimensions: overwhelming exhaustion and feeling overextended and depleted; feeling cynical and detached from the work; and a sense of ineffectiveness, inefficacy, hopelessness, and lack of accomplishment (Bakker & Oerlemans, 2019; Maslach & Jackson, 1981; Maslach et al., 2001). The burnout dimension this study is interested in is the latter, namely reduced professional efficacy or professional inefficacy, which often arises from a lack of relevant resources being available and the accumulating effects of this situation over time (Demerouti et al., 2021; Leiter & Maslach, 1988; Schaufeli & Salanova, 2007).

Employees confronted with increased job strain are more likely to use maladaptive strategies, such as avoidance and self-undermining, and less likely to use adaptive strategies, such as recovery and job crafting (Bakker & de Vries, 2021). Chronic fatigue, emotional and cognitive distancing are more likely, as are psychological and physical health problems, such as anxiety, depression, sleep disturbance, emotional instability, memory impairment, and muscle pain (Bakker & Costa, 2014; Schaufeli et al., 2009). In contrast, energetic and invested employees are committed, innovative, creative, and demonstrate high quality performance standards (Bakker et al., 2011). These reinforcing experiences of depletion and rejuvenation have been described by Llorens et al. (2007) as gain and loss spirals and can increase wellbeing or increase burnout respectively.

Individuals who lack resources become increasingly susceptible to losing even more resources (Demerouti et al., 2004; Hobfoll & Freedy, 2017). Whereas gaining resources increases the resource pool and makes it more likely the individual will acquire additional resources, resulting in the vitality of thriving in the work environment (Goh et al., 2021). This study builds on this gain and loss reinforcing systems perspective of burnout.

### *Summary of Literature Review and Research Question*

Amidst the national call for more WIL, the Australian WIL system is under pressure to deliver on increased demand for a range of reasons that are outlined above. For WIL administrators with responsibility for supporting and delivering quality WIL experiences for students, an understanding of the gravity and impact of these systemic pressures is largely missing from the WIL literature. With an aim to understand the pressures the Australian WIL system places on WIL administrators from a systems thinking perspective, this study addresses the research question:

Are Australian WIL administrators suffering burnout from underinvestment in the WIL system? If so, what characteristics of the system enable this burnout?

## RESEARCH METHOD

This study is conducted in two parts (Figure 4). Part 1 uses the Oldenburg burnout inventory (OLBI), which is recognized as a broad measure of burnout that can be applied to a range of contexts (Demerouti & Bakker, 2008; Halbesleben & Demerouti, 2005). Added to the OLBI was an open-ended question designed to extract a narrative about the burnout phenomenon, particularly the factors perceived to impact the experiences of burnout, such as disengagement and exhaustion. In this way, the narrative contextualizes the quantitative OLBI measure, which is also used as data for Part 2. Because the study aims to visualize how the WIL system drives WIL administrator burnout, Part 2 involves the production of an influence diagram from a synthesis of data gathered from both existing literature (drawing themes from the literature review above) and the narratives from the open-ended question responses.

Subsequently, by using the concept of systems archetypes, a “credible and consistent hypotheses” can be constructed that reveals the forces that drive a system (Senge et al., 2011, p. 229). Archetypes reveal the reinforcing loops that generates exponential growth, such as the gain and loss spirals (Llorens et al., 2007), and the balancing loops that generate forces of resistance that limit or inhibit growth. It is through these balancing loops that systems find their equilibrium or settling state where they stabilize (Senge, 2006). The final influence diagram (Figure 5) to visualize and conceptualize the theory building approach this study adopts, is an approach accepted for its appropriateness in complex situations where there is either no theory or a problematic one, and where there is focused attention on the variants of interest (Gehman et al., 2017). In this study, the variants are the various constraints of the WIL system, which cumulatively drive WIL administrators to a state of burnout.

### *Oldenburg Burnout Inventory Score*

Grounded in the jobs demands-resources theory and adaptable to any workplace context (Bakker & Demerouti, 2017; Rattrie et al., 2019), the OLBI measures two constructs of burnout: emotional exhaustion and disengagement (Demerouti & Bakker, 2008). Comprising of 16 questions, the OLBI results in three distinct scores: Disengagement (D), Exhaustion (E), and overall burnout level (O). This instrument was first constructed and validated amongst different German occupations, and its translation into English has since been validated (Demerouti & Bakker, 2008; Halbesleben & Demerouti, 2005).

One of the strengths of the OLBI are the positively worded questions (i.e., Usually, I can manage the amount of my work well) and negatively worded questions (i.e., Sometimes I feel sickened by my work tasks). The mixed wording of items requires respondents to think carefully about their responses (Halbesleben & Demerouti, 2005). Each question is answered using a 4-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) (Halbesleben & Demerouti, 2005).

### *Narrative Response to the Oldenburg Burnout Inventory Scores*

The open-ended question to the OLBI inventory: Tell me about the circumstances inside and outside of work that have influenced your answers, is intended to draw out inchoate thoughts and provide the participant with an opportunity to document the factors perceived to impact burnout. The use of narratives is well established in organizational and communications research and provides a content rich way of exploring complex organizational issues (Boje, 2001; Clandinin, 2006).



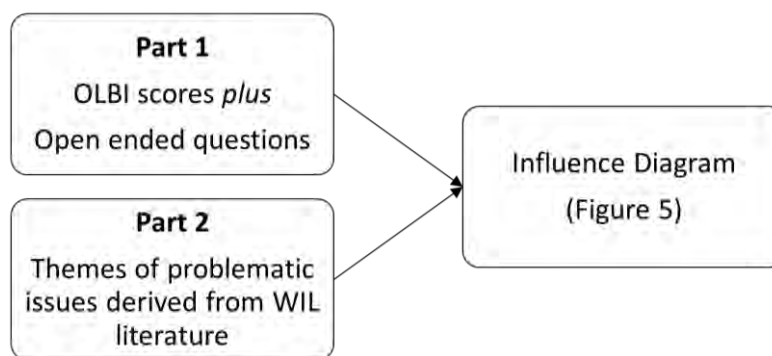
### Data Collection

For Part 1 participants were recruited from 12 universities across Australia with the assistance of the National Association of Field Experience Administrators (NAFEA), which is a professional association that represents WIL administrators across Australian universities (National Association of Field Experience Administrators, 2017). Participants were responsible for administering a range of WIL experiences in a range of discipline areas. The online survey was distributed to approximately 200 NAFEA members via email. Only those responses that included both an OLBI ranking and narrative response were included in the findings (n=25).

All participants identified themselves as professional staff and that they spent between 75% to 100% of their time administering WIL. Participants also identified being responsible for a broad range of discipline areas: Accountancy, Allied Health, Biomedical Science, Business, Counselling, Food Science, Indigenous Health Law, Medicine, Nursing, Paramedicine, Pastoral Ministry, Psychology, Sports and Fitness Coaching, Teacher Education and Veterinary Science. Nine participants reported being responsible for multiple discipline areas.

This part of the study has human ethics approval (H17REA005, Human Ethics Committee, University of Southern Queensland). For Part 2, the literature review (above) relating to WIL, WIL stakeholders, and the range of problematic issues with WIL serves as the data source. (Figure 4).

FIGURE 4: Methodological components.



### Data Analysis

For Part 1, the participant's overall OLBI scores were investigated to understand the range of burnout being experienced by participants. Secondly, narratives were thematically analyzed in a three-stage process using the NVivo platform. During the first stage, the narratives were read and reread with initial notations. During the second, the narrative was coded for emergent themes before being connected across all transcripts (Braun & Clarke, 2006; Smith et al., 2009). For Part 2, a thematic analysis process was applied to the literature review (also using NVivo) to summarize and categorize patterns or themes. A flexible analysis method was used (Braun & Clarke, 2006) that focused themes on actors in the WIL system (administrators, students, academics, and industry), the issues WIL administrators encounter with WIL, and importantly how these themes and issues influence each other. Finally, these themes and their relationships were compared to the various systems archetypes so that a 'best fit'

could be identified. The use of the prefix [P] indicates a quote from a WIL administrator (professional staff member), while each individual is identified by a letter of the alphabet.

## FINDINGS

### *Are Work-Integrated Learning Administrators Suffering Burnout?*

Literature that specially looks at burnout that directly relates to WIL is scant. Even more so, burnout of professional staff who administer WIL. In this study most participants are experiencing burnout. Two participants fall into the high range (range 48 – 64); twenty individuals within the mid-range (range 32 – 47); and three in the low range (range 16 – 31).

### *Is Underinvestment in the Work-Integrated Learning System Causing WIL Administrator Burnout?*

Figure 5 depicts the burnout or reinforcing loop (R1) and five balancing loops (B1 to B5) in the current Australian WIL system. Each loop in the Australian WIL system contains significant elements (factors) that influence WIL administrator burnout. Taking a systems approach, these elements are best discussed in terms of the growth and balancing loops they occupy, bearing in mind that this growth and underinvestment system is externally anchored to the reference point of a pedagogical quality standard of WIL experiences. The loops in the system are distinguished as follows:

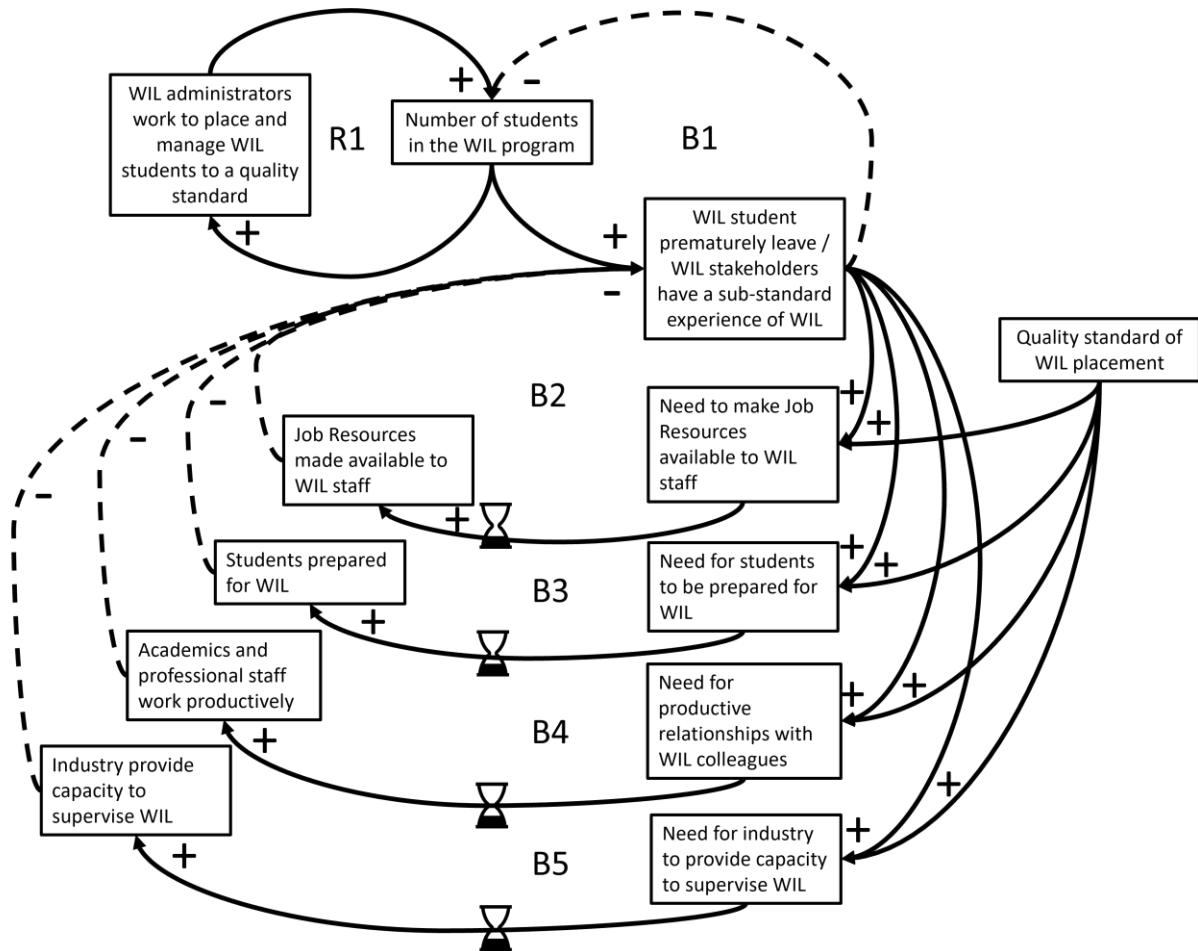
- R1: WIL vision - WIL administrator burnout,
- B1: WIL reality. This is the product of the accumulation of limiting factors (loops B2 to B5), which put pressure on the growth of quality WIL placement,
- B2: University underinvesting in WIL administrator job resources,
- B3: Student are unprepared for WIL placements,
- B4: WIL administrators experience conflict with academics, and
- B5: Industry underinvests in WIL.

### *R1: The Work-Integrated Learning Vision Loop – The Work-Integrated Learning Administrator Burnout Loop*

This loop comprises two elements: ‘WIL administrators work to place students and manage WIL students to a quality standard’ and ‘number of students in the WIL program’. While all WIL stakeholders would have a vision of this being a growth or gain spiral, the reality is that it functions as a loss spiral because of loop B1. This influence diagram allows us to better understand how the WIL administrators, constrained by the B1 loop might experience a loss of hope, leaving them with a sense of uncertainty and questioning their value as professionals: “I have a slight case of impostor-syndrome, or uncertainty of my value” (PV); “I know that my job is so important. I would like to be more valued” (PX); and “Issues regarding staff and workloads are forever fixed by band aids (temps)... lots of promises, but continually ignored! (PC).

The responses to the open-ended question demonstrate the struggle WIL administrators have in a range of ways, revealing how loop R1 actually functions as a reinforcing loss spiral. For example: “Many plates spinning as well as customer service via email, telephone and face to face adds to stress”(PM); “Difficult to perform all the necessary duties required to complete the placement process. Ring schools, do admin, normal day to day tasks”(PJ); “Combined work roles make the load extremely heavy, especially when you have limited people in your team” (PO).

FIGURE 5: Influence diagram of the Australian work-integrated learning system.



*B1: The Work-Integrated Learning Reality Loop – The Accumulation of Constraints*

This loop is where the reality of placement experiences for all WIL stakeholders is brought to bear on WIL administrators, from their perspective (remembering that the WIL administrators are always speaking from inside loop R1), because of underinvestment by universities and industry: “High workload, high stress, higher numbers of complaints” (PK); “I am constantly exhausted and in pain from tension. I don’t know how much longer I can keep this up” (PB); “We have too much work to do, and my health issues are mostly mental” (PA).

As the reality of WIL interacts with the externally defined ‘quality standard of WIL placements’, a need to remedy the situation (an inhibitor/constraint avoidance) is developed, which can either be acted upon or ignored. Regrettably, both the literature and participants reveal that there are four needs that implore a response, each of which go unheeded. Each of these needs are designated in Figure 5 by the balancing loops B2 to B5.

*B2: University Underinvesting in Work-Integrated Learning Administrator Job Resources Loop*

This loop reveals the need to make job resources available to WIL administrators: “I have experienced a huge amount of stress in the last 4 weeks, involved an incident that was bought on by staffing issues, unable to retain staff, role too big and overwhelming/NO SUPPORT - underlying stress over office” (PC, capitalization in survey response); “constant pressure of work, from increased student load by not increased staff, having temps who don’t pull their weight” (PB); “possible staffing cuts looming” (PQ).

*B3: Students are Unprepared for Work-Integrated Learning Loop*

This loop reveals the need for students to be prepared for WIL: “I also spent a large amount of time dealing with two students who did not read the instructions correctly and will now not be able to make a placement selection. This has been frustrating” (PL). This participant reveals the pressure under-prepared commencing WIL students cause and the extra effort needed on the part of the WIL administrator to manage and fix these situations. In this case, this has diverted attention away from securing other needed WIL experiences. As the literature supports, when students have not undertaken basic requirements or orientation, such as securing appropriate licenses, delays in their placement occurs, and this results in a negative experience for both the student and the industry partner.

*B4: Work-Integrated Learning Administrators Experience Conflict with Academics Loop*

This loop reveals the need for productive relationships amongst all WIL colleagues: “a change in academic team members has led to a feeling of being more isolated; where staff are 'played' off one and other. An environment of 'run with the foxes and hunt with the hounds' is encouraged” (PE); “new academic director who has a very manic personality and is very much a control freak, introducing rapid change and not allowing me autonomy. This has made my work very unpleasant” [PA]; “working with negative colleagues who create stresses” (PR); “academics always making demands” (PB).

*B5: Industry Underinvests in Work-Integrated Learning Loop*

This loop reveals the need for industry to provide WIL placements, as without industry providing the capacity to supervise WIL the system is limited in its ability to grow, which is recognized by Patrick et al. (2008) who describe issues of supply and demand of placement opportunities in the face of larger numbers of students: “we are currently experiencing a high volume of student enrolments, but a drop in the number of offers we receive from external sites” (PJ); “there’s a lack of placements” (PP).

## DISCUSSION

This study found that WIL administrators in the Australian WIL system do suffer burnout, and that the system can be visually represented by a growth and underinvestment archetype. As a point of difference to a growth and underinvestment with drifting standards archetype, no indicators were found in either participant statements or the literature that an erosion of the external quality performance standard for WIL was taking place. This point is insightful as it means that WIL administrator’s response to underinvestment (in the burnout loop R1) is to *absorb and internalize* their own sense of inefficacy, which manifests for them as burnout (as evidence by the OLBI scores), which are both proxies for compensating by living and dealing with their professionalism towards their role being continually eroded and undermined. The Growth and Underinvestment influence diagram of the Australian WIL system (Figure 5) reveals the emotional weight of the burden that underinvestment creates for WIL administrators, and how vulnerable to its pressures they are – along with their powerlessness to remedy the situation.

Enquiry reveals that burnout for WIL administrators is influenced by limited/constrained responses (by universities and industry) to the various needs (loops B2 to B5). Without this response, the system moves toward a state of equilibrium, which in practical terms for WIL administrators means that they are put in the position where they must subordinate their professionalism and the interests of the students, for the interests of the industry placement provider, because of the need to “suck up to them, so they keep taking students” (Gillett-Swan & Grant-Smith, 2020 p.397). The harder WIL administrators push (loop R1) to attain their professional efficacy, the harder the system (loop B1) pushes back (Senge et al., 2011). WIL administrators suffer burn out as a result. Figure 5 reveals how WIL administrators compensate for the underinvestment by bearing the emotional burden (see Figure 3) caused by a lack of shared understanding of the purpose and meaning of WIL between universities and industry, and their inability (for a range of reasons) to overcome these challenges. This contributes to the occurrence of unsuitable WIL experiences, along with declining university contact hours, reduced rigor in WIL units and courses, and unsuitable WIL supervision arrangements (Jackson et al., 2016).

The influence diagram of the Australian WIL system (Figure 5) points out that not only are universities violating their legal obligations to the health and wellbeing of their workforce, but that WIL administrators who exit their roles due to burnout, take with them vital knowledge, expertise, and informal relationships with industry partners, which again limits growth in the WIL system. Put simply, the WIL administrator is systemically compromised in their ability to administer quality WIL by factors that are beyond their control. The pressures of being under resourced in their job, limited available placements, students being underprepared, and limited capacity within industry to provide WIL, all act as inhibitors on the system, limiting growth. In reaction to these limitations, WIL administrators must compensate by internally lowering their performance standards for suitable WIL experiences, which limits growth even more and compromises WIL experiences for all stakeholders.

In terms of recommendations for remedying the situation; universities and industry should respond to the perceived needs that develop in the system. Responding to a perceived need creates an inhibitor avoidance (see Figure 5) which suppresses the effects of the overall growth inhibitor (loop B1). Furthermore, some WIL experiences actually have limited impact on the improved career outcomes they are intended to support, leading to a call for universities to consider the design aspects of WIL activities (Jackson & Bridgstock, 2020). To strengthen the wellbeing of WIL staff, there are calls to investigate their work in terms of scope, volume, responsibilities, and the stressors they encounter (Zegwaard & Pretti, in press). This study reinforces this, and other calls to design and implement WIL differently, with creativity (Dean & Campbell, 2020; Effeney, 2019; Sheridan et al., 2021), and from a systems perspective. It also reinforces the need to specifically and deliberately consider the experiences of the professional staff who administer WIL.

## CONCLUSION

This exploratory investigation has employed a systems thinking tool, in the form of an archetypal influence diagram of growth and underinvestment to visualize the dynamic interplay of the various elements of the Australian WIL system that drive WIL administrators into a state of burnout. There is little doubt that the Australian WIL system is under pressure and the methodology deployed in this study allows stakeholders to ‘see’ this pressurized system in a new way.

If this already underinvested system is to experience growth, it relies on industry to provide suitable quality WIL experiences that meet pedagogical thresholds; universities to adequately prepare students for their WIL experience, or face undesirable and unavoidable placement delays or cancellations; and

universities to provide WIL administrators with the job resources to help them achieve the vision of quality WIL experiences for all Australian university students.

For all those involved in WIL, the results of this analysis should be of concern. All the vital benefits WIL provides for university graduates, industry, and the future of work, are unsustainable unless the pressures of the system on the WIL administrators can be alleviated. Asking WIL administrators to work harder is not a solution and exiting WIL administrators take skills, knowledge, and crucial industry relationships out of the WIL system.

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