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The Impact of Work-Integrated Learning on Academic Workload: Drivers, Time and Tasks Involved

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Abstract

Work-integrated learning (WIL) is recognised as a valuable pedagogical strategy for learning, and for providing students with work experience during their degree program. Despite the benefits, such programs are recognised as being more time consuming to design and deliver, and therefore have implications for the workload of academic staff. Prompted by a lack of empirical data substantiating such claims, and the roll out of an institution-wide approach to WIL at an Australian university, this study was initiated to collect data on the amount of work and types of tasks involved in teaching, administering and supporting WIL courses. Specifically, the following research questions were investigated: 1) How much time is spent on the delivery of WIL courses? 2) What tasks are involved in the delivery of WIL? 3) What are the key drivers of WIL workload? Twenty-eight WIL unit (course) convenors provided workload data on 48 WIL units via surveys, with 30 staff also participating in interviews. Findings confirm that WIL workload is substantial, with key drivers relating to the unit characteristics and nature of the WIL activity. Implications for practice, policy and future research are discussed.

Keywords

Academic Staff, Participatory Research, Policy, Work-Integrated Learning, Workload

1. Introduction

Work-integrated learning (WIL) is recognised as a valuable pedagogical strategy for learning, and providing students with work experience during their degree

program, thereby facilitating their transition into meaningful work post-graduation (Chillas et al., 2015; Jackson et al., 2015). WIL can positively impact students' motivation, engagement and confidence through opportunities to apply theory to practice, enhancement of employment prospects through development of key employability and citizenship skills (e.g. teamwork, problem solving, cultural sensitivity) and building of professional networks (Jackson, 2013, 2014; Sachs et al., 2017; Smith et al., 2014). WIL programs are generally based on the reciprocity principle, with WIL activities designed to benefit all stakeholders, including host organisations and their clients and/or communities (Sachs & Clark, 2016) through completion of a needed project, addressing recruitment needs, and providing access to the latest knowledge (AWPA, 2014; Jackson et al., 2015; Sachs et al., 2017).

Despite the benefits, such programs are recognised as being more time consuming to design and deliver, with implications for the workload of staff teaching and supporting them (Barrett & Barrett, 2008). This is an increasingly important issue given the growth of WIL both within Australia and internationally (Clark et al., 2014). Not surprisingly, workload has been identified as a major challenge to the sustainability of WIL programs (DeClou et al., 2013; Jovanovic et al., 2018). When properly resourced, WIL can be a costly endeavour (Orrell, 2004, Clark, 2016), however, if under-resourced it has the potential to contribute to staff burnout, with excessive workload demands in academic environments impacting on program quality and staff well-being (Bezuidenhout, 2015; Melin et al., 2014).

In this respect, WIL has several parallels to online, distance and blended delivery modes, and workload studies of these pedagogical approaches also provide insight into WIL workload considerations. Shared issues include increasing accountability, governance responsibilities, student support demands, pressures to be available 24/7 and the need to redesign curricula for diverse models of delivery (Bezuidenhout, 2015). Multiple role expectations involved in online learning have been linked to increased stress (Briggs, 2005), and changing work roles can have significant implications for the wellbeing and mental health of academics (Bezuidenhout, 2015). It follows that academics involved in WIL delivery may also be at risk of burnout if workload issues are not addressed.

2. Academic Staff Workload in WIL

Until recently, little empirical work had systematically investigated the lived experience of practitioners that WIL courses were more time consuming and resource intensive to design, deliver and support than traditional classroom-based courses. The absence of such data makes estimating resourcing requirements, costs and skill sets associated with the design and delivery of WIL experiences difficult (Lomax-Smith et al., 2011; Tallantyre, 2008). To address this gap in the literature, and to pro-actively address sustainability issues for a new whole-of-university WIL initiative, a three-year study was initiated at an Australian University to collect data on the amount of work and types of tasks involved in teaching, administering, and supporting WIL courses (Clark et al., 2014). This paper

reports on data collected from the project, focusing specifically on the amount of time academics spend on the design/delivery of WIL courses, as well as the types of tasks undertaken by these staff. Some preliminary findings have previously been published elsewhere (Bilgin et al., 2017; Rowe et al., 2014, 2016).

At the time the study was initiated (in 2012) extant literature had established that WIL was a unique approach to teaching and learning which presented a number of challenges to university staff (McLennan & Keating, 2008). Firstly, it involved different (and often new) approaches to curricula and pedagogy, which needed to integrate theoretical, professional and experiential models of learning, with less emphasis on teachers controlling the learning process and more on students' self-management of learning (McLennan & Keating, 2008).

Secondly, staff were required to fulfil more complex administrative and pastoral responsibilities (Bates, 2011; Bulot & Johnson, 2006; Johnston, 2007; Sattler et al., 2011), with some WIL tasks blurring traditional boundaries between teaching and administrative roles in higher education (Barrett & Barrett, 2008; Bates, 2011; Paewai et al., 2007; Whitchurch, 2008). Examples of tasks considered unique to WIL include recruiting WIL partners, relationship building, administering WIL service agreements, managing student learning contracts, providing career/employment counselling, mentoring students and developing WIL-related curricula (Bates, 2011; DeClou et al., 2013). Because some of these are undertaken in addition to regular duties, they are often not recognised by academic workload models (Emslie, 2011), and subsequently underestimated in the time it takes to do them (Bates, 2011) in a similar way to other service roles (Kenny & Fluck, 2014). This further supports the observation that traditional workload models are not well suited to dealing with the changing nature of tertiary teaching (Dekeyser, et al., 2014).

Despite these realisations, specific empirical studies investigating workload in WIL program delivery remain sparse. Bates (2010, 2011) is an exception, identifying a range of activities that staff working in WIL programs are expected to do as part of, or in addition to, their regular duties. Some general studies on academic workload in higher education acknowledge the time-consuming nature of WIL (Barrett & Barrett, 2008) but have not attempted to measure it. Bates (2010, 2011) in Australia and Peters et al. (2012) in Canada both identified a range of WIL related tasks/activities, however, neither measured workload hours.

3. WIL at Macquarie University

Macquarie is a large metropolitan university located in Sydney, Australia. In 2019 it enrolled over 45,000 students and employed around 3800 staff (Macquarie University, 2019). The university offers a broad suite of programmes covering business, science, arts, medicine, health and human sciences. Historically, the university did not have a widespread tradition of WIL (with a small number of exceptions) until the introduction of the PACE (Professional and Community Engagement) program in 2012. This initiative now provides WIL opportunities to all

undergraduate students across the university, regardless of discipline or a student's academic standing. Each year over 8500 students undertake a WIL project with one of 1000-plus industry and community partners through one of 80-plus purpose-designed, discipline-based PACE coursework units. These units cater for a diversity of delivery modes including internships, remote/virtual consultancy projects, field trips, community development projects, campus-based group projects, research and evaluation.

The scope, scale, diversity and distributed nature of its integration in the curriculum distinguish PACE in the Australian higher education sector, with the program winning a range of national awards for teaching excellence and employability enhancement. Despite their clear advantages in enabling universal access to WIL for students at Macquarie, the scope, scale and diversity of PACE were also identified as factors likely to impact staff workload associated with delivery of the program. It was therefore critical that this research captured the diversity of delivery modes and disciplines to determine their differential impact on staff workload (if any).

4. Measures of Academic Workload

Studies of academic workload have tended to rely on self-report survey data (Bentley & Kyvik, 2011; Jordan, 1994; Kyvik, 2012). This type of data is easy to collect quickly, particularly from large numbers of participants. It has, however, been critiqued for potentially generating inflated results if staff exaggerate workload (Tight, 2010) and being susceptible to recall error (Bentley & Kyvik, 2011). That said, the latter factor could also make *under*-estimation of workload as or more likely, with participants forgetting to add up the "quick calls/emails" they do between other tasks that don't get recalled/recorded as easily as blocks of time working on a particular task. While alternative methods were considered by the research team (e.g., random time sampling methods), WIL workload can fluctuate from week to week over the duration of a teaching session (Jovanovic et al., 2018), and it was important for the study to inter alia ascertain which periods were busiest for WIL course convenors. As a result, the survey-based diary approach outlined below was preferred as it would enable the most comprehensive data capture.

Aims and Research Questions

The aim of the study was to collect data on the amount of work and types of tasks involved in teaching, administering and supporting WIL courses at an Australian university, with a view to informing both the WIL literature base and resourcing decisions at the institution (Clark et al., 2014). This paper reports findings pertaining to three specific research questions: 1) How much **time** is spent on the delivery of WIL courses (referred to as units)? 2) What **tasks** are involved in the delivery of WIL? 3) What are the **drivers** of WIL workload? This paper adopts a broad definition of WIL, inclusive of a range of experiential and practice-based

education models and activities such as placements, field trips, project work with an industry or community partner, mentoring and volunteering. While acknowledging the significant effort and contribution non-academic university staff make to supporting WIL programs, the focus of this paper is on the workload of academic staff engaged in WIL.

5. Method

5.1. Participants and Procedure

Ethics approval for the research was obtained from the institution where the study was undertaken (Human Research Ethics Committee Reference No: 5201200467). All academic convenors and other staff involved in teaching and administering PACE units across the university over a three-year period (2013-15) were invited to participate in the study. Invitations were issued for all offerings of WIL units at the university across four teaching periods—Semesters 1 & 2 (13 week semesters), Winter Vacation & Session 3 (5 to 6 week semesters), i.e. 12 teaching periods in total. The first stage involved an invitation, including the preliminary survey being sent out six weeks before the start of each teaching period. Once participants had confirmed their intent to participate in the study, they were subsequently sent the first weekly survey. Weekly surveys were administered every week of the semester up until grades were released to students. Hence, they captured six weeks of preparation work done in the weeks leading up to each formal teaching period, as well as work done during and after formal teaching periods (five weeks' post-course work). Organising WIL activities means that work is undertaken before and after formal teaching periods, work that is usually rendered invisible in conventional workload models, and we tried to capture the former by asking participants to indicate the hours (lump sum) that convenors had spent so far on all types of preparation tasks to design and deliver the unit. Most participants completed the weekly surveys through the online survey software Qualtrics, with a few opting to use a pre-designed Excel spreadsheet for data collection instead (Rowe et al., 2016).

The overall response rate for the weekly survey was 37% (48 responses out of 129 invitations). During the three-year period of the study, data was collected in respect of 48 units, some of which were offered multiple times. This meant that the number of distinct individual participants (N= 28) was lower than the number of distinct surveyed units (N = 48). Of the 28 individual participants, 20 (71%) were females and 8 (29%) were males; the large majority (85%) had experience of running a PACE unit at least once before. Forty (83%) of the units ran in either Semesters 1 or 2, with the remaining 8 offered in the compressed session offerings. The range of disciplines represented by the 48 units included social science, law, history, biology, computing, statistics, environmental science, health, psychology, marketing, and business administration, with a small number of units offered to students from any discipline.

Semi-structured interviews were conducted to collect more in-depth data on

issues relating to the design and delivery of WIL units. Thirty staff participated in interviews, including 16 of the 20 unit convenors who partook in the weekly quantitative survey data collection. The methodology of this phase of the study is reported in more detail in Rowe et al. (2014, 2016) and Bilgin et al. (2017). Although both quantitative and qualitative data were collected from academic and non-academic staff, this paper will focus on data collected from unit convenors (i.e. academic staff), and primarily draw on the survey results.

5.2. Instrument

Data were collected via two online survey instruments. The first, "preliminary survey" collected demographic data on participants and the WIL unit they taught and/or supported (e.g. enrolment numbers, type of WIL activity, its associated risk level, and whether responsibility for sourcing partners and WIL activities rested with staff or students). The purpose of the preliminary survey was to collect information on variables which might impact a particular unit's workload in comparison to other units with a view to shedding light on potential workload drivers.

The other "weekly" survey was a diary-style instrument which collected data on the amount of time and types of tasks involved in teaching, supporting and administering PACE units during a particular semester. Nine types of workload tasks were captured in the weekly survey, which can be grouped within two clusters: a) Tasks common to all academic units, including classroom based units (curriculum development/preparation, curriculum delivery, assessment of student learning and related administration); b) Tasks specific to WIL (PACE) units (student related tasks, partner related tasks, risk assessment, legal, ethics, insurance, PACE-related research, PACE-related organisational service and leadership) (Clark et al., 2014). This split into two groups of tasks ("all units" and "WIL units"), while useful in some respects, should not be relied on as definitive as some tasks common to both teaching modes may take longer in WIL for a range of reasons (e.g. assessment of student learning).

5.3. Statistical Analysis

Descriptive statistics, including mean and standard deviations, were used to explore the data set before applying other methods, particularly for the first research question (time involved in delivering WIL). Where the mean was not describing the centre of the observations due to skewness of data, then the median and interquartile range (IQR) were used. Where appropriate, Pearson's correlation and linear regression were used to estimate the association (relationship) between different variables. Kruskal Wallis non-parametric test was used to compare the distributions. Statistical significance was assessed based on $p < 0.05$.

Cluster analysis was used to investigate the second research question (tasks involved in delivering WIL), and shed light on the third question (drivers of workload). Cluster analysis is a useful exploratory technique for grouping similar variables and, in this study, it enabled the identification of groups of tasks in which

the associated workload varied as a block. For example, it might be expected that if there was a higher number of student-related workload tasks in a unit then administration, risk assessment and partner related tasks would also likely increase in a similar way. Agglomerative hierarchical cluster analysis with Ward method was used for cluster analysis where Squared Euclidean distance was the dissimilarity measure. This algorithm starts with each variable having their separate clusters and then combines clusters until each variable (in this case, tasks performed by academics) belongs to one large cluster. Survey data was analysed using IBM SPSS Statistics for Windows, while interview data analysed via QSR NVivo software.

6. Results

6.1. Workload in WIL Units

6.1.1. Most Time-Consuming Tasks During Teaching Periods

On average, the three most time-consuming tasks per student for unit convenors during the teaching period (**Figure 1**) were learner assessment (mean of 2.3 hours, std of 1.8 hours), curriculum development (mean of 2.2 hours, std of 4.5 hours) and PACE-related research (mean of 2.1 hours, std of 4.5 hours). Note that **Figure 1** does not include pre-semester preparatory workload hours. The large amount of time invested in assessment may reflect the largely individualised nature of assessment in WIL units as students often work with different partners and/or activities (Bilgin et al., 2017). It is not surprising that curriculum development workload is high because many courses were being developed during the time this research was undertaken. This latter factor also largely explains the relatively high PACE research workload as academics relatively new to WIL invested considerable time in researching the most effective forms of unit design and curriculum delivery. Competitive grant schemes were also being offered at the time to encourage the development of innovative modes of curriculum delivery of PACE and expansion of industry and community partnerships, further stimulating such research (Clark, 2016).

It was somewhat surprising that student-related tasks on average took a slightly lower 1.7 (std = 2.0) workload hours (per student) for unit convenors, given that individual case management is a significant differentiator of WIL compared to traditional classroom-based courses (Rowe et al., 2014); the expectation was it would be higher. However, our data show there was little difference between the time spent on student-related and other tasks (per student) including partner-related tasks (mean of 1.8 hours, std of 3.1 hours), administration (mean of 1.6 hours, std of 1.9 hours), and curriculum delivery (mean of 1.8 hours, std of 2.7 hours) tasks. On average, the least time-consuming tasks for unit convenors were PACE organisational service (mean of 1.1 hours, std of 3.0 hours) and risk assessment (mean of 0.5 hours, std of 0.7 hours). The latter is not surprising as within PACE, non-academic support staff provide a considerable amount of direct assistance in this important WIL-related task, as they do with some of the other tasks

that unit convenors found less time-intensive (including monitoring of students during their placement). During the first two years of the survey (2013-2014), for example, partner-related tasks and administration were on average taking unit convenors more time. With increased University investment in PACE support as the program evolved, both centrally and at Faculty level, we suspect that much of the burden of these tasks shifted from individual academics to PACE support staff. It is also likely that unit convenors continued to work with already established partners which require less intensive time commitment as the relationship matures compared to early offerings of PACE units when many partner relationships were relatively new.

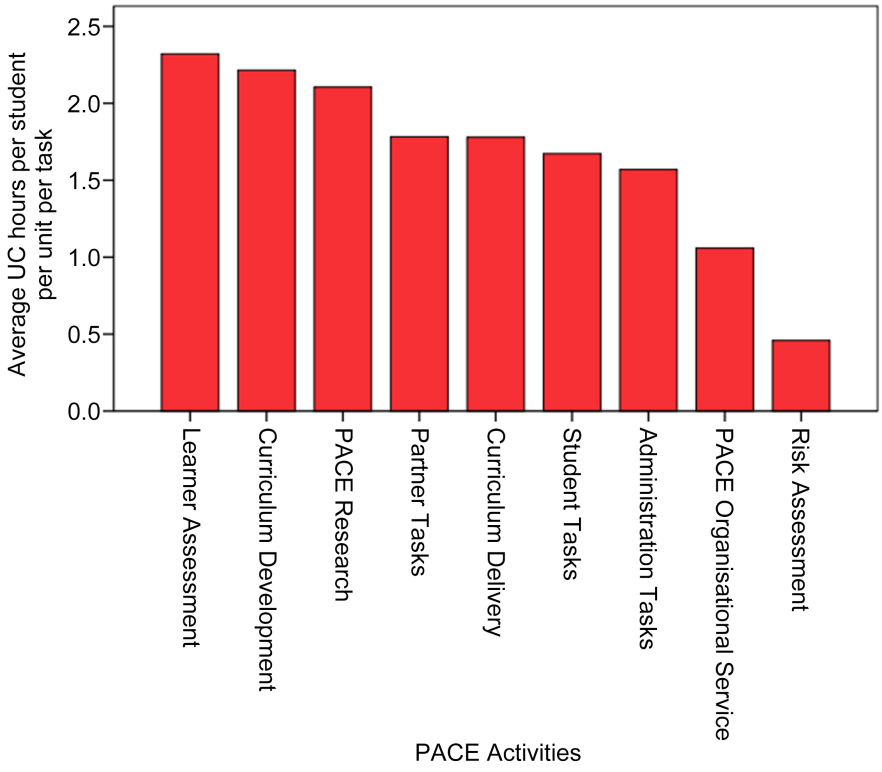

Figure 1. The most time-consuming tasks for WIL unit convenors during semester.

While the present study did not collect quantitative data on the amount of time unit convenors spend on "traditional" classroom-based teaching, many participants in the qualitative phase of our study specifically commented on their lived experience of workload in WIL being higher across a variety of domains. Encouragingly, most Faculty workload models at the University have started to make specific additional provision for WIL, although in practice this can result in divergent outcomes for two otherwise similar WIL offerings depending on the extent to which the relevant line managers understand the nature of such workload. A lack of understanding of the complexities of WIL by senior management has been reported as contributing to inadequate resourcing and recognition (Rowe et al., forthcoming).

6.1.2. Quantum and Variability of Workload

There was substantial variability found in the total unit convenor workload by unit, which ranged from 0.4 hours to 77.1 hours per student, with a mean of 14.7 (std = 15.7) and a median of 10.0 (IQR = 16.3) (Figure 2). This workload included all unit convenor tasks, i.e. preparatory work undertaken prior to the commencement of formal teaching periods, as well as work undertaken during and for a short time after teaching periods. It did not include work undertaken by any other staff member involved in the unit, either professional or academic. These workload hours also exclude WIL-related activities (i.e. research and organisational service) that may not be directly related to a specific unit. As indicated in Figure 2, there were three possible outlier units (one with 77 workload hours per student, another with 61 hours per student and the third with 53 hours per student).

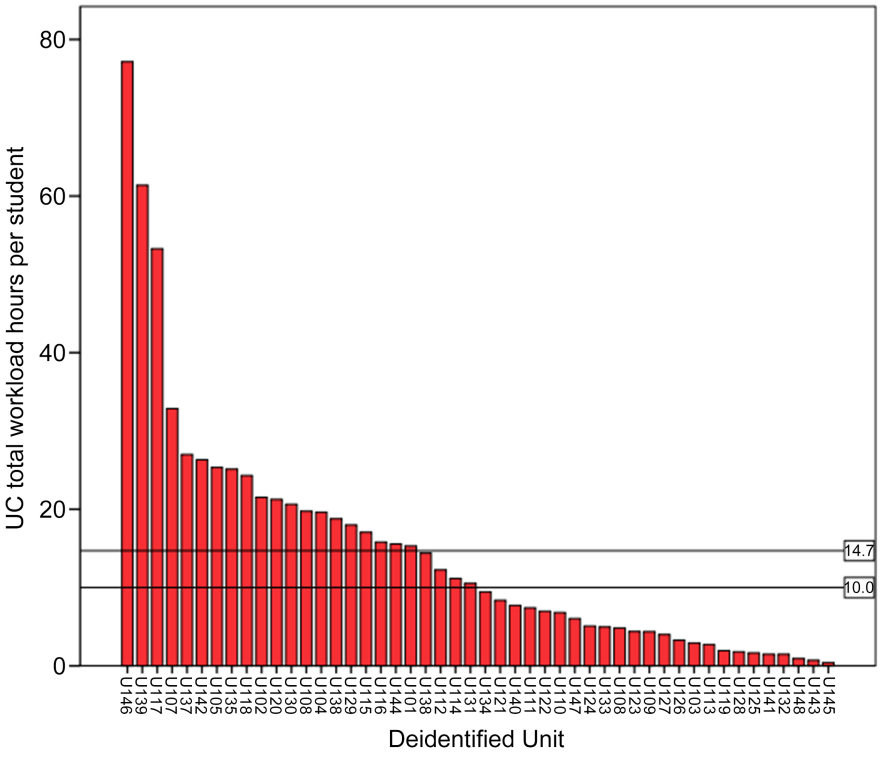

Figure 2. WIL workload hours: substantial and variable.

6.2. Drivers of Workload and Its Variability

Two key drivers of the quantum of workload and its variability were identified—unit characteristics (accounting for variability in workload between WIL units) and the distinctive nature of WIL (accounting for variability in workload between WIL units and traditional classroom-based units).

6.2.1. Unit Characteristics

The WIL units surveyed differed across several characteristics (referred to as attributes), including the way in which students participated in the WIL activity (individual vs group based), the location of the activity (on campus/home vs at an

external workplace), and the way in which industry/community partners were sourced (by university staff or by students) (Table 1). There was a fairly even mix of small (≤40 students, n = 26 units) and large (>40 students, n = 22 units) units. Not surprisingly, larger units had more variation in enrolment size (median = 76 students, IQR = 58 ranged between 46 and 435) than the smaller units (median = 14 students, IQR = 13, ranged between 2 and 36).

As is apparent from Table 1, interesting differences were observed between small and large units (in terms of enrolment size) across a number of these attributes. For example, student sourcing of partners was more prevalent in large units (32% compared to 15%), while individual activities (such as individual placements) were more widespread in small units (73% compared to 50%). Similarly, WIL offerings delivered in block or a mixture of block and periodic modes were more common in small classes (77% compared to 41%), while larger classes were more likely than small classes to make use of on-campus modes of WIL delivery (27% compared to 19%). These discrepancies point to potential strategies being used by unit convenors to manage WIL experiences for students, quite possibly due to workload issues, e.g. it is suggestive that individual WIL experiences are not as easily accommodated in larger units. They are also suggestive of some key drivers of variability in WIL-related academic workload that are currently being analysed and will form the focus of a subsequent paper.

Table 1. Distribution of units by class size and attributes.

Attributes	Categories	Number of Units		
		Small Class (≤40 students)	Large Class (>40 students)	Total
Partner Sourcing	Staff	22 (85%)	15 (68%)	37 (77%)
	Students	4 (15%)	7 (32%)	11 (23%)
Participation Type	Individual	19 (73%)	11 (50%)	30 (63%)
	Group	7 (27%)	11 (50%)	18 (38%)
PACE Location	On Campus/Home	5 (19%)	6 (27%)	11 (23%)
	External	21 (81%)	16 (73%)	37 (77%)
Delivery Mode	Periodic	6 (23%)	13 (59%)	19 (40%)
	Mixture/Block	20 (77%)	9 (41%)	29 (60%)
Total		26 (54%)	22 (46%)	48 (100%)

6.2.2. Distinctive Nature of WIL

Aside from indicating potential drivers of workload variability relating to characteristics of different WIL units, data reveal several possible explanations for the high quantum of unit convenor workload found in WIL compared to that of traditional classroom-based teaching. Three aspects of the nature of the WIL activity

were found to be important: hidden workload, individual case management, and the timing of workload (including preparation work).

A hierarchical cluster analysis of the distinctively WIL-related tasks involved in teaching and administering these WIL units produced a dendrogram which identifies groupings of tasks in which the workload varied in a similar way. These groupings in turn might shed further light on the nature and drivers of academic workload in this form of teaching. Three distinct groupings of tasks were identified (Figure 3). As shown in in Figure 3, student related tasks, administration, risk assessment, and partner tasks are grouped together (top cluster). Likewise, workload associated with WIL-research and organisational service are grouped in another (bottom) cluster. It is important to identify clusters of related tasks, not least because traditional workload models generally focus on curriculum development, delivery and assessment (middle cluster of tasks in Figure 3) but rarely account for tasks contained in the top cluster shown in the diagram. Figure 3 suggests that the quantum and variability of workload tasks intrinsic to WIL units, but rarely captured in workload models, is quite distinct from that associated with more conventional learning and teaching tasks.

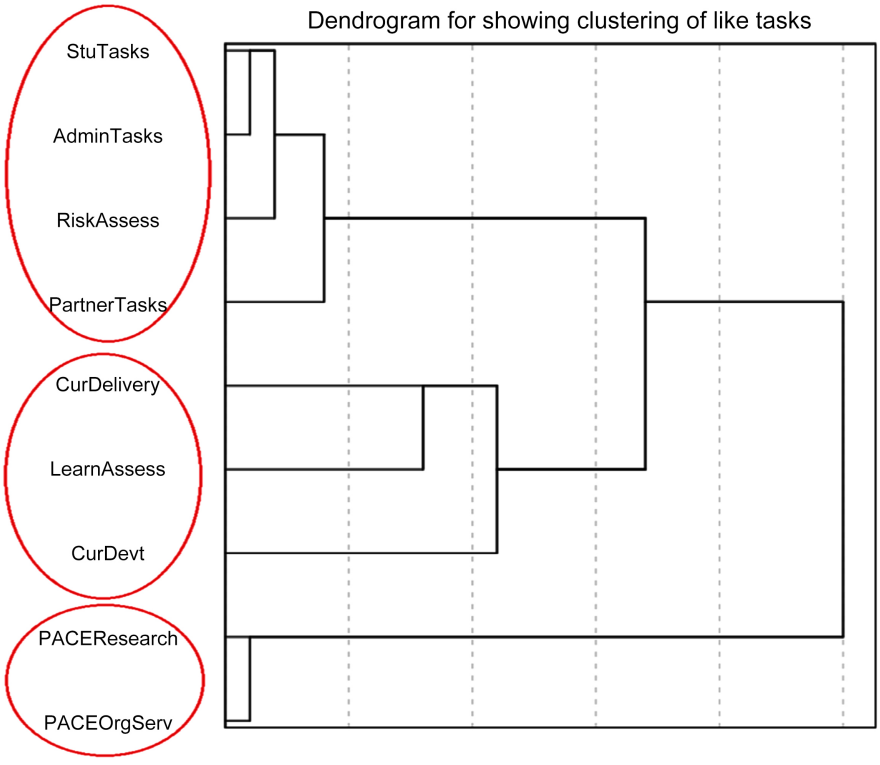

Figure 3. Dendrogram demonstrating clustering of like workload tasks.

That said, data collected through the qualitative phase of the study indicates that WIL also has the potential to increase the amount and experience of workload associated with more conventional teaching tasks. As one (non-academic) participant commented in relation to the workload for academics convening WIL units:

> *…for unit convenors it is a lot of extra effort…In the workplace things happen, so supervisors get sick, students go beyond a [semester] because they can't finish the placement, so it requires extra workload. Or they want to start early because of personal circumstances so it, so there's always more going on for the unit convenor beyond the session, than just the regular things (P28, Professional Staff).*

In addition to some tasks being (perceived as) more time-intensive in WIL, many participants reported the work had heightened affective dimensions. These include an increased sense of personal responsibility for student welfare, the experience of partners, and the reputation of the University, along with stress associated with the greater unpredictability associated with involvement of a third party in the unit (i.e. industry/community partners):

> *My challenge is always worrying about the students…that 1) They're projecting a positive image for the university; 2) That they're not being stymied or harassed or anything like that (P01, Unit Convenor).*

> *The lack of control in terms of, I can't control my external partners, is the big difference. It's a sort of—it's a wildcard element in these units that make it much more stressful (P13, Unit Convenor).*

These comments, both of which were far from isolated examples, are suggestive of WIL requiring a higher amount of emotional labour than does teaching traditional courses.

Individual case management. A key theme identified in an earlier phase of the study was individual case management—perceived by Unit Convenors to be a key contributor to both the amount and variability of workload in WIL (Rowe et al., 2014). This arises from a range of factors including more frequent out-of-class interaction with individual students, particularly when students (and industry partners) encounter problems or challenges during their WIL engagement:

> *There's a lot more individual student interaction. In the past when I've taught a regular classroom-based unit…there's much more regular classroom contact and most of the questions that come up for students get dealt with in that context. Occasionally a student will want to meet outside or exchange emails outside. Because we have less classroom time [in WIL] there's a lot more individual interaction with students wanting to email or meet or both or even just kind of check in. So yeah, there's a lot more outside the classroom contact with individual students (P27, Unit Convenor).*

> *…there was one student, I've probably personally spent 70 or 80 hours on that one student alone, who was just incredibly difficult. And when we had our meetings with her to try and sort things out, you know, I would be reading 70 - 80 pages of notes on that one student's case. So I exceeded my entire allocated workload for the unit with that one person* (*P17, Unit Convenor*).

In addition, some units have the potential to vary significantly each semester,

e.g. engaging different industry partners, on different WIL activities, and sometimes with a quite different student cohort, which can sometimes necessitate quite different assessment tasks. This level of "churn" in the unit cohort and teaching activities results in a higher workload for unit convenors, as P27 (Unit Convenor) aptly summarizes: "It's like doing a new unit, every time".

Timing of Workload. A third dimension of the distinctive nature of WIL workload revealed in the study relates to when workload is incurred. This in turn has two main components: firstly, the amount of pre-semester preparatory work involved in WIL units and, secondly, its continuous nature. One academic participant in the study went so far as to suggest that:

> *the amount of work that happens—the amount of preparation and thinking time for the PACE [unit] is probably 10 times, if not 20 times, more [than a classroom-based unit] (P29, Unit Convenor).*

Analysis of the survey responses revealed preparation work to account for a substantial amount of the workload in the WIL units surveyed, in some cases making up approximately half of a unit convenor's workload for the unit (Figure 4). This preparation work mostly involved tasks such as: developing relationships with partners; negotiating legal agreements; and recruiting and matching students with appropriate WIL partners and activities. The preparatory work shown in Figure 4 relates solely to that of unit convenors. In all but six cases, several other staff, both academic and professional, were involved in supporting the WIL unit, suggesting that Figure 4 underestimates the full extent of preparatory work involved in delivering these units.

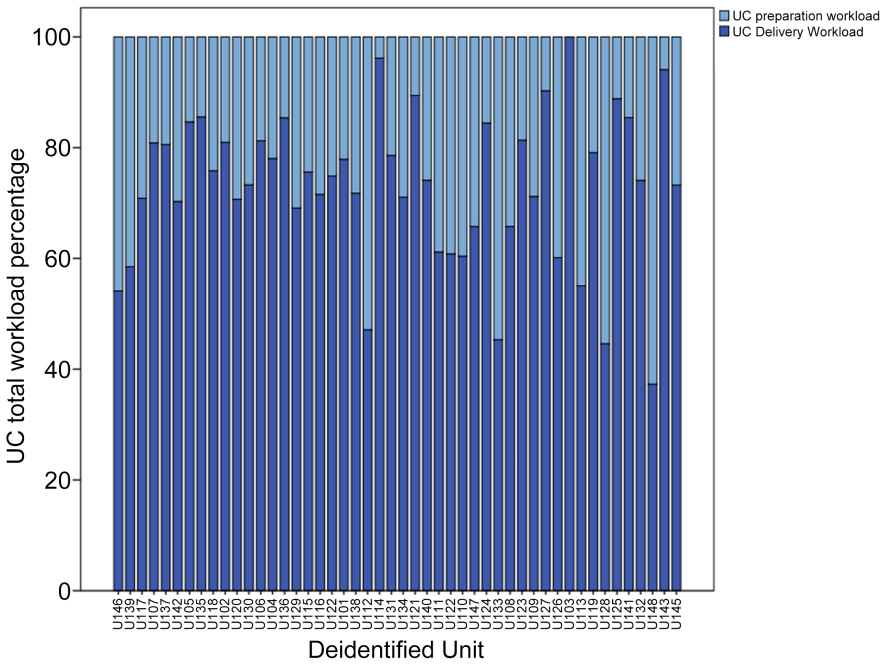

Figure 4. The breakdown of workload for unit convenors: preparation and delivery workload.

A further distinctive component of the timing of WIL workload reported by many participants in the study concerned its continuous nature. Not only does the workload start earlier than the formal start of the teaching semester when compared to traditional classroom units, it also spills over into subsequent semesters (Rowe et al., 2014). One participant (P17, a Unit Convenor) remarked that: "it dominates your entire year from January through to December". Others made similar observations:

> *[WIL] units are very intensive in terms of administration. For example, now [at the end of semester] I can see how many of my colleagues are relaxing and chatting in the corridor and having longer lunches. I'm not. I'm just full on preparing the next semester, talking to partners. Filling in all sorts of spreadsheets with all the students I'm going to have, and whether I already have a placement. What the ethics situation is going to be for that placement… (P02, Unit Convenor).*

7. Discussion

Our research contributes much needed empirical data to an under-researched and complex area of learning and teaching in higher education. As recently noted by Jovanovic et al. (2018) "further investigation is timely into what engagement in WIL entails for academic staff, and how it impacts upon their work, workload, professional engagement and identity" (p. 94), with "little work… done within the literature to move beyond calling attention to this issue" (Jovanovic et al., 2018: p. 104). Our data supports and extends this, and previous scholarship, by providing evidence of the considerable amount of time it takes to design and deliver quality WIL, and the variability of workload across WIL courses, which represents a major challenge to the sustainability of WIL programs (DeClou et al., 2013; Jovanovic et al., 2018) unless it is adequately addressed in workload models and other University resourcing frameworks. Key differentiators (drivers) of WIL workload and its variability include unit characteristics (e.g. class size and responsibility for partner sourcing), along with factors specific to and/or associated with the nature of WIL as a mode of delivery, e.g., additional risk, administrative and partner-related tasks; individual case management of students; increased time invested in learner assessment; and the substantial preparatory and follow-up work that takes place outside formal semester (i.e. hidden workload).

An earlier analysis of interview data (Rowe et al., 2014) revealed some workload tasks in WIL units were perceived by convenors to be the same as those involved in classroom-based teaching, others had workload increased as a result of WIL, and some were unique to WIL courses: reflecting the findings of other studies (Bates, 2010, 2011; DeClou et al., 2013). Quantitative analysis reported in the present paper extends that finding, with workload found to vary systematically across different tasks. While assessment of student learning was the single biggest contributor to course convenor workload in WIL during the teaching period, other studies, e.g., Jovanovic et al. (2018) point to administration as the most dominant

aspect. Yet other studies have emphasised aspects of work associated with building industry relationships (Rook, 2017) and supporting students and industry partners (Bates, 2011). The latter findings are not necessarily inconsistent with those of the study reported here, as many of these administrative and partner-sourcing tasks are likely to have been undertaken prior to the commencement of semester, a period during which, this study shows, up to half of the academic workload involved in a WIL unit is incurred. Our study also shows that the workload involved in such administrative and relational tasks also continues throughout the teaching period.

Perhaps it is more important to note that although assessment of student learning and administration can be part of any university course, the nature of these activities for a WIL unit is often profoundly different. This is due to the resource-intensive individual case management of students in many WIL courses, as well as the direct involvement from a third stakeholder, an external partner, who often needs to be sourced by the university and whose involvement raises the stakes and time commitment associated with a range of teaching-related tasks. Extra workload in assessment for example, might be due both to the more individualised nature of assessment in WIL units (e.g. with convenors investing additional time on feedback to ensure student work is presented to the highest standards to external partners (Bilgin et al., 2017)) and to the need to support industry partners in assessing students' professional competence (McNamara, 2011), and following up to ensure the timely return of industry-based assessments (Bates, 2010).

Interestingly, Jovanovic et al. (2018) report that administration and teaching demands contributed to a lack of time for "supporting inquiry learning and our relational pedagogical work, in response to the administration and teaching demands of coordinating WIL effectively within the course" (p. 104). This theme did not come up in our research, however a lack of time to pursue research was a recurrent theme in interviews with participants, and has been noted in other literature (Bates, 2011). This is important given research activities are given more recognition status in academia than that given to forming partnerships with industry and sustaining WIL quality (Tuinamuana, 2016), and thus more directly linked to academic advancement, including promotion.

Another key differentiating factor between workload in WIL and traditional classroom-based courses is the continuous nature of WIL workload, with the lead and lag times associated with each WIL unit providing little respite in work intensity between formal semesters. The building and sustaining of partnerships with community, the development of placements for future student cohorts, and the mentoring of other WIL university-staff and their situational support of students and community partners are tasks that continue throughout the year, contributing to the continuous workload. So too do the desire and pressures to support the "availability and accessibility" of WIL opportunities at all times of the year, which vary widely depending on industry needs, a factor which has been identified as a contributor to workload in other studies (Jovanovic et al., 2018).

Finally, there are the added emotional, pastoral care and reputational risk responsibilities borne by convenors of WIL courses (Bates, 2010, 2011) which, like many other elements of WIL, are rarely recognised in academic workload models (Emslie, 2011; Tuinamuana, 2016). A recent Australian study, for example, reported a "high mental load" associated with managing WIL students, particularly international students, and those with mental health issues (Wenham et al., 2019: p. 1033). The hidden nature of this work, and its institutional undervaluation (Clark et al., 2014; Jovanovic et al., 2018; Patrick and colleagues, 2008), if left unchecked, can lead to staff burnout (Bezuidenhout, 2015; Melin et al., 2014). Bates (2010) for example, reported that some WIL staff wanted to change their course responsibilities or administrative positions due to burnout, a perceived lack of support, and the degree of additional responsibility involved. Wenham et al. (2019) similarly note reasons for WIL academic advisors leaving employment include "high workload, inadequate pay and lack of professional autonomy" (p. 1032). These, coupled with higher levels of emotional labour as evident through our interview data, suggest this area may warrant further investigation in WIL, particularly as university lecturers report relatively high levels of emotional labour in comparison to other occupations anyway (including those where emotional labour is prevalent) (Berry & Cassidy, 2013).

The methodology used in this research has a number of limitations, some of which have been reported previously (Clark et al., 2014; Rowe et al., 2016). These include challenges around: ensuring data quality (e.g. staff over or under estimating workload), capturing the complexity of workload (e.g. clarifying/interpreting tasks), identifying all potential drivers of workload (particularly those related to student characteristics due to ethics restrictions relating to obtaining data), reluctance of staff to partake in the research due to time restrictions or the sensitive nature of the research and being conducted in a single university. Finally, the resourcing required to administer surveys to participants was considerable, however deemed necessary to ensure data quality.

8. Conclusion: Implications for Policy, Practice and Future Research

Data reported in this study are important for informing resourcing and staffing decisions underpinning offering of WIL programs in universities. The sustainability of WIL programs depends on understanding different models of WIL and their impact on staff workload—the importance of adequate resourcing at an institutional level has been recognised in several recent reports (Sachs et al., 2017). WIL workload needs to be formally recognised in academic workload models, with clearer recognition and articulation of expectations around specific workload tasks. This requires "a reassessment of academic work roles and expectations in ways that recognise the distinctiveness and value of WIL" (Emslie, 2011: pp. 41-42). Given the reported under-valuing and under-recognition of WIL in the literature (Emslie 2011; Orrell et al., 1999; Wenham et al., 2019), the involvement of

academic staff in this process of effective workload allocation is essential to ensure credibility and fairness (Kenny & Fluck, 2014). It is paramount that WIL programs are adequately resourced and staff supported (Rook, 2017; Sachs et al., 2017; Wenham et al., 2019) if students, industry partners and universities are to reap the full potential of WIL to enhance student learning and employability in a sustainable way.

So too do universities need to consider and resource the best possible complement of academic and professional staff to support the sustainable development and delivery of WIL. Whitchurch (2008)'s notion of a "third space" comprising "unbounded" or "blended" professionals provides a useful framework from which to unpack the different dimensions of WIL workload and design appropriate resource configurations to support it. WIL is an example of a space where professional and academic staff collaborate on projects of strategic importance (Veles & Carter, 2016). It has been noted that WIL practitioners, both professional and academic, require broader (and sometimes different) skill sets than those required of classroom-based teachers (Bates, 2011) and other University staff, for example interpersonal skills needed for partnership development and supporting students, and reflective capability to effectively teach reflective practice. These capabilities are not always adequately recognised in University frameworks for recruitment and remuneration (Patrick et al., 2008; Wenham et al., 2019). Further there is blurring between the roles and responsibilities of academics and professional staff in this space, for example the high administrative load for course convenors (Bates, 2011; Barrett & Barrett, 2008), and the important role professional staff play in supporting student pastoral care and learning. As Veles & Carter (2016) observe, the space in which these dynamic teams of "blended" professionals operate: "requires convergence of talent, fusion of skills and creative tension, [and] contributions from diverse personnel unencumbered by titles, job roles and position descriptions" (p. 522).

In addition to recruitment and remuneration practices, there is a need for universities to rethink the current staffing configurations which WIL is delivered and supported in higher education: are they fit for purpose? Doing so is not only vital for the just recognition of the contributions of the staff involved, but also to the success and sustainability of universities' engagement agendas.

Throughout this paper we have alluded to areas where further research is required, including to enable a better understanding of the full range of drivers of variability in WIL workload across different modes of delivery. There is also benefit in conducting comparative empirical studies across institutions, disciplines and diverse WIL models to obtain a comprehensive overview of the impact of WIL on academic staff workload. Such research would provide additional data on the drivers identified in our study and potentially identify other contributors to workload, including student-related drivers. This is particularly timely considering the recent transition of many WIL activities to online delivery modes in response to the Covid-19 pandemic (Zegwaard et al., 2020). Amassing a rigorous evidence

base on these issues is important both to furthering our understanding of WIL workload, as well as to informing institutional and government decision-making on how best to resource the sustainable delivery of this valuable pedagogical strategy for student learning and employability development.

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Availability of Data and Material

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

Author's Contributions

All authors whose names appear on the submission:

1) Made substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data;

2) Drafted the work or revised it critically for important intellectual content;

3) Approved the version to be published;

4) Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Ethics Approval

Received from Macquarie University Human Research Ethics Committee Ref. No. 5201200467.

Consent to Participate

All participants in the study provided informed consent in accordance with the study-specific protocols approved by the Macquarie University Human Research Ethics Committee.

Conflicts of Interest

All authors were employees of Macquarie University when the study was conducted; author Clark was the Academic & Programs Director of the WIL program (PACE), at this time. The authors declare no conflicts of interest regarding the publication of this paper.

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