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Embedding work-integrated learning into accounting education: The state of play and pathways to future implementation

This paper explores particular ways that accounting education is preparing students for future work and strategies for improvement. This is critical for accounting educators worldwide given the global pressure on higher education institutions (HEIs) to develop career-ready graduates, accelerated by widespread measurement of institutional performance using graduate employment metrics, weakening graduate labour markets, and increased attention on the value of completing degree studies. HEIs are seeking ways to enhance their students' employability through embedded teaching and learning interventions, co-curricular offerings (for example, leadership awards and mentoring programs) and encouraging students to engage in extra-curricular activities, such as volunteering hubs and competitions. Accounting is no exception with recent studies examining the extent to which courses are preparing students for the profession and industry (Elijido-Ten & Kloot, 2015; Jackson, 2018a; Stanley & Xu, 2019) and the importance of integrating authentic learning to enhance student employability within the discipline (Dean, Perkiss, Simic Misic, & Luzia, 2018).

More specifically this paper reviews and evaluates how work-integrated learning (WIL) is embedded in accounting education and suggests ways on how this could be enhanced. WIL is the infusion of industry and/or community engagement into student learning and assessment as a formal component of their studies (Jackson, 2018b). There is growing recognition of the value of WIL beyond the workplace (internships, placements, practicums), including virtual or campus-based activities such as simulations, consultations, mentoring, and project-based learning (for example, Kay, Ferns, Russell, & Smith, 2018). In 2006, Abeysekera highlighted the value of different forms of WIL for enhancing the employability of accounting students, along with associated challenges. Despite efforts in the higher education (HE) sector to embed WIL and leverage its documented benefits, there remains dissent among accounting employers who lament skill deficits in new graduates (Cappelletto, 2010; Douglas & Gammie, 2019; Elijido-Ten & Kloot, 2015; Jackling & de Lange, 2009) and express concerns that accounting curricula does not adequately prepare students for effective transition to the workplace (Natoli, Jackling, & Jones, 2018; Plant, Barac, & Sarens, 2019).

Contribution

This paper builds on the work of Abeysekera (2006) by reviewing how emergent forms of WIL, beyond work-based offerings, are being embedded in accounting education to meet the demands of contemporary work. Insights into how WIL is used in accounting education, and how this could be enhanced, is both timely and important given the sector's focus on enhancing students' preparedness for future work, particularly considering recent changes to university funding which is now partially determined by graduates' employability outcomes (Australia Government, 2019b). WIL is widely considered to develop different aspects of contemporary notions of student employability, including career self-management, professional capabilities, discipline-related knowledge, networking capabilities, perceived employability, and professional identity (Dacre-Pool & Sewell, 2007; Jackson, 2017). This has led to an increased appetite among key stakeholders to embed WIL across all disciplines, augmented by Australia's National Strategy on WIL in University Education (Universities Australia et al., 2015). Further, WIL attracts international students who value relevant work experience (Deloitte, 2015) for enhancing their future job prospects post-graduation. This is important given the significant proportion of international students in accounting (Jackling & Natoli, 2015) and international education's role as a major export industry (for example, Australian Government, 2019a). Finally, this paper informs educators on effective ways to enhance accounting students' career readiness through WIL, critical given changing labour market demands in the accounting profession due to globalisation and digital disruption (Frey & Osborne, 2017; O'Connell et al., 2015).

This paper is structured to provide an overview of the labour market demands of new accounting graduates, followed by a review and evaluation of how different forms of WIL are being used in accounting. Practical strategies are then discussed for how educators may enhance these offerings to optimise student career readiness, followed by concluding remarks.

Demands of future accounting graduates

While shifts in work and skill demands arising from Industry 4.0 may be little different to those experienced in earlier periods of rapid technological change (Deloitte, 2019), the accounting profession has been significantly impacted. Globalisation demands a new set of aptitudes for accounting employees

to ensure they are equipped to perform effectively across a wide range of work environments, countries, and cultures (Winterton & Turner, 2019) and can successfully operate in a dynamic business environment (Chaplin, 2017). Plant et al. (2019) advocate adaptability, communication, time management, self-management, and teamwork as essential for graduates and entry-level accountants to meet the challenges of today's diverse workplaces. Digital disruption has led to the automation of certain processes (Open Universities, 2019) and, in combination with outsourcing, a shift in accounting roles from number crunching to risk management and strategic decision making (Jackling & de Lange, 2009). O'Connor et al. (2015) assert that accounting graduates 'need to have an ability to create value as business and wealth advisors, interpreters and communicators of financial and non-financial information, and contribute to the strategic direction of organisations, in particular, and society, in general' (p. v). This means evidencing professional capabilities over and above basic technical accounting knowledge (Bayerlein, 2015; Lim, Lee, Yap, & Ling, 2016), including digital literacy (CPA Australia, 2019), problem-solving, leadership, critical and analytical thinking, creativity and innovation, originality and initiative, customer service, and conflict management (Chhinzer & Russo, 2018; Deloitte, 2019; World Economic Forum, 2018).

Dolce et al. (2019) provide a stark insight into the professional capabilities expected of accounting graduates, raising concerns for whether business schools can realistically produce these outcomes within their current structures, systems, and resources, a concern noted in earlier years (for example, Cornford, 2005). Indeed, recruiting skilled and qualified talent is cited as a significant business challenge for accounting practices, with two-thirds of participating CPA members stating job-ready university graduates were not readily available (CPA Australia, 2019). This is particularly problematic for public sector agencies and small businesses given clear preferences among accounting students to gain graduate employment with the Big Four (Morgan McKinley, 2018). Increasingly, the accounting industry is recruiting from a range of disciplines (Eames, Luttman, & Parker, 2018) and while there is a willingness to train new graduates, there is a perceived risk that they will be 'tempted away', particularly by the Big Four (CPA Australia, 2019). These recruitment trends highlight the need for clear and positive action by accounting educators to refresh the curriculum to better meet evolving labour market demands, such as through innovative forms of WIL.

Accounting education and graduate performance

Despite concerns with the vocationalisation of HE detracting from its core purposes of individual growth and building knowledge (see Sin, Tavares, & Amaral, 2019), the sector's drive to enhance employability has led to three dominating responses. First, the 'skills agenda' (referring to employability, generic, core, professional skills – herein referred to as professional capabilities) saw a series of national and institutional frameworks emerge to guide educators on industry-required skills and attributes and how to embed and measure their development, with accounting no exception (for example, Hancock & Freeman, 2010; Jackling & de Lange, 2009; Smith, Maguire, & Han, 2018). Second, increasing attention to career development learning with emergent interventions to guide students on improving effectively managing their careers (for example, Bridgstock, 2009; Smith et al., 2009), underpinned by frameworks such as the 'Blueprint' (see Hooley, 2013) and DOTS model (Watts, 1977). Third is embedding WIL into curriculum structures, discussed in the following section.

Evidence, however, indicates that university graduates are lacking the competencies sought by employers and are not considered to be career-ready (Lim et al., 2016; Winterton & Turner, 2019). More specially, the accounting profession is calling for enhanced problem solving, communication and leadership skills through active learning as opposed to more traditional passive learning techniques, as this has produced better student outcomes (Riley & War, 2017; Stephenson, 2017). Dolce et al. (2019) found graduates also believed they lacked a range of professional capabilities, including teamwork, time management, communication and problem-solving skills, relative to their importance in the workplace. Also problematic was the lack of awareness among accounting graduates of what graduate employers expected of them for effective workplace performance. Interestingly, documented skill deficiencies do not appear to have changed significantly from earlier concerns with graduate outcomes, despite sector efforts to resolve these (see, for example, BIHECC, 2007).

This disparity between the skills accounting graduates possess and those required by employers has led to increased recruitment for entry-level accountancy roles from other fields of study (Douglas & Gammie, 2019; Elijido-Ten & Kloot, 2014). According to Eames et al. (2018), the shortage of career-ready accounting graduates entering the workforce has created an opportunity for students with undergraduate degrees in other disciplines to undertake accelerated learning programs to complete the

requirements to become professional accountants. This recruitment from other disciplines reflects accounting education's overemphasis on technical skills and their relatively weak development of professional capabilities, described as the 'detrimental influence of professional accreditation on accounting degrees resulting in an overly technical education which replicates the professional body syllabus at the expense of a more liberally-based education' (Douglas & Gammie, 2019, p. 304). Further, Howcroft (2017) asserts there is a lack of space in accountancy degrees to incorporate the teaching of professional capabilities due to accreditation requirements, a longstanding problem (for example, Boyce, 2004).

Business schools tend to have large cohorts of fee-paying students, resulting in deteriorating staff-to-student ratios which further limits capacity to develop the core competencies of critical thinking, problem solving, and communication (Howcroft, 2017; Tan & Laswad, 2018) to meet the needs of accounting profession employers (Pincus, Stout, Sorensen, Stocks & Lawson, 2017). Pratama (2015) argues there is disparity between accounting educators and practitioners in their priorities for preparing students for future work, the former focused on theoretical principles and the latter on practical application. To better align graduate capabilities to the shifting priorities of the accounting profession, academics and curriculum designers must clearly enhance professional capability development, alongside quality provision of technical accounting skills (Fogarty & Lowensohn, 2017; Lim et al., 2016).

Accounting degree programs are criticised for their reliance on rote-style training rather than contextualised learning activities (Bayerlein, 2015). Practical training, such as internships, may resolve this (Lim et al., 2016), along with problem-based learning which adopts a collaborative, student-centred approach (Stanley & Marsden, 2012; Whyte, 2017), including that which can be delivered online and therefore engage large numbers of enrolled students. Engaging with the profession through such authentic learning activities will develop a deeper understanding of theory and better prepare graduates for transferring knowledge to the professional environment (Sullivan, 2009; Wyness & Dalton, 2018).

WIL and accounting education

Forms and structure of WIL

Given calls for equitable access to WIL and increased student engagement in disciplines less traditionally associated with WIL (Universities Australia et al., 2015), there has been growing attention to embedding alternatives beyond the traditional workplace-based model. These provide an authentic learning experience for students unable to participate in workplace-based WIL due to, for example, course structure, inability to source an opportunity, or barriers such as travel, childcare and clothing costs (Brough et al., 2014). They also support the participation of start-ups and micro-businesses in WIL, often excluded due to being virtual or at-home operations which creates concerns for supervisory capacity, networking opportunities and appropriate workspace for WIL students. New forms of WIL provide flexibility in the time and resources invested by partners, enabling them to also identify graduate talent, aid in developing career-ready graduates, and access new thinking (Department of Industry, 2014; Jackson et al., 2017a). Table 1 draws on recent literature (for example, Kay et al., 2018; Sachs, Rowe, & Wilson, 2016; Universities Australia, 2019) and institutional typologies to summarise the various forms of WIL, further explored in the later 'snapshots' on their use in accounting education. These require varying levels of industry participation and may take place virtually, on-campus or in the workplace.

[Insert Table 1]

It is important to acknowledge the Australian-centric focus of this paper, given the diversity of WIL offerings worldwide and varying levels of industry engagement. For example, Higher Degree Apprenticeships and sandwich degree offerings in the UK, cooperative education in North America and mandatory WIL in certain parts of Europe serve to highlight the different approaches to embedding WIL in accounting education. The recent national audit of WIL in Australia (Universities Australia, 2019) confirmed the most common form of WIL across all disciplines was workplace-based, which has dominated studies on the application of WIL in accounting (for example, Abeysekera, 2006; Stanley & Xu, 2019). Interestingly, the audit reported that only one-quarter of Management and Commerce HE students had undertaken WIL and relatively more had undertaken projects, simulations and 'other' forms than workplace-based options.

WIL is, by definition, embedded in the curriculum but this can be achieved in different ways. In Engineering, for example, a prerequisite number of hours of relevant work experience is required for course completion and this may be structured through academic units or as a parallel course requirement. In accounting, there is a tendency for WIL experiences to be formalised into standard academic units (Stanley & Xu, 2019) where students accrue credit points towards their final degree component. Given that WIL is not mandatory for accounting accreditation, it is expected to be an elective component and, as with most forms of WIL in Australia, it is typically unpaid (Universities Australia, 2019). As per most business courses, WIL often features as a capstone experience and in the latter stages of the course structure (Stanley & Xu, 2019). This defies the benefits of scaffolding WIL through the degree (for example, Health/Education) where students develop professional identity and capabilities from the outset and are better prepared for graduate employers' early talent identification strategies, such as vacation programs.

Benefits of WIL

WIL is widely acknowledged as enhancing dimensions of contemporary models of student employability, extending beyond skill development and the traditional human capital perspective (for example, Holmes, 2013). It integrates learning across academic and professional contexts, enabling students to visualise and apply their theoretical knowledge and skills in a practical way. WIL affords valuable insight into professional practice, codes of conduct and values, and enables students to evaluate their own strengths and capabilities against industry standards. It also provides them with an opportunity to develop a sense of being a professional (Paterson, Higgs, Wilcox, & Villenuve, 2002) and experiment with the persona of their intended profession (Ajjawi, Boud, & Marshall, 2020). Along with skill development (see McManus & Rook, 2019), WIL can broaden networks, increase confidence, aid career decision-making, and enhance self-awareness (Bridgstock, 2016; Jackson & Wilton, 2016), as well as help to develop reflective, critical practitioners who embrace change and challenging situations (Trede & Jackson, 2019).

There is wide recognition of the need for greater industry engagement in accounting curricula, more authentic learning experiences, and also the value in extending beyond traditional classroom modes of delivery (Behn et al., 2012; Stanley & Xu, 2019). Wilkerson (2010) supports the role of

accounting education in fostering career-readiness, recognising that extra-curricular internships cannot be relied upon, given their lack of attention to preparing student participants, reflective activities and feedback processes inherent to quality WIL (Jackson, 2018d). The far-reaching benefits of workplacebased WIL for enhancing accounting student employability have been evidenced (Cord, Bowrey, & Clements, 2010; Stanley, 2013, 2017), along with documented benefits for accounting employers (Brimble et al., 2010). Abeysekera (2006) provided detailed insight into the potential gains of different forms of WIL for various stakeholders in accounting education.

WIL's importance is now recognised by accrediting bodies in Australia (CPA Australia & CAANZ, 2016), along with employers who increasingly feature work experience as one of its most highly desired selection criterion in graduate recruitment processes (Bilsland, Carter, & Wood, 2019). There is a growing body of evidence that WIL improves graduate employment outcomes (McCarthy & Swayn, 2019; Silva et al., 2016), including the likelihood of attaining quality, graduate-level employment (Jackson & Collings, 2017). Reports that concerning levels of underemployment among new graduates, including accounting, are predicted to rise (Karmel & Carroll, 2016; Jackson, 2018c) have increased attention to enhancing WIL in disciplines where it features as an elective component of degree studies, including Management and Commerce (Universities Australia, 2019).

Challenges in embedding WIL

Effectively embedding quality WIL into curriculum structures is not without challenges. Workplacebased WIL involves a support team to engage with industry and manage the ongoing, mutually beneficial and sustainable partnerships that are critical to WIL (Barrie & Pizzica, 2019). Unfortunately, the rising demand for workplace-based WIL is often not matched by suitable placement opportunities, attributed to employers operating on lean models with declining capacity for supervising and mentoring students, a lack of understanding of what WIL involves, and concerns with student performance (Department of Industry, 2014; Jackson et al., 2017a). In accounting, a lack of host employers offering meaningful work experience may also be due to students' weak capabilities in operating workplace software (Elijido-Ten & Kloot, 2015), their inability to be client-facing due to a lack of technical knowhow, and heightened concerns for client confidentiality (see Stanley & Xu, 2019). The growing focus on WIL inevitably means heightened competition among universities to establish industry partnerships (Sachs et al., 2016) and the imbalance in supply and demand adds further pressure onto HEIs seeking to upscale their WIL offerings. It is also particularly problematic for international students who are often less favoured by host employers due to concerns with cultural understanding and language capabilities (Gribble, 2014). The use of academic entry criterion can also be common in elective WIL programs, such as accounting, as a way of limiting student numbers and universities showcasing their most talented students (Dunn, Schier, Hiller, & Harding, 2016) yet means the learning experience is often confined to the academic elite.

There are also difficulties with streamlining WIL into academic workloads' and the lack of recognition of WIL for academics in career pathways (Clark et al., 2016). Buy-in from academic staff in the design and delivery of WIL may prove challenging given competing pressures for quality teaching and researching and publishing within their discipline areas (Abeysekera, 2006; Cappelletto, 2010) and the lack of reward and incentive for promoting employability (Behn et al., 2012). Cost and resourcing may also be a barrier given WIL demands careful governance, risk and quality control which often requires significant support from multiple services within the university (Sachs et al., 2016). This may be particularly problematic in accounting given the volume of enrolled students and some being in remote or regional areas.

Locating space in degree courses can be problematic (Stanley & Xu, 2019). While Stanley and Xu do not differentiate between undergraduate and postgraduate offerings, space is – anecdotally - particularly problematic for undergraduates completing an accounting and finance double major. Shifting WIL into a co-curricular offering – where it is facilitated by the university but not as a formal component of the course – could, however, contravene Fair Work Regulations' definition of a vocational placement (Hewitt, Owens, & Stewart, 2018) and raises equity concerns as it puts additional pressure on students who are already balancing significant commitments, such as caring and paid work, and may lack the resources, support and networks to engage in additional activities. Finally, the three pillars of WIL - preparation, feedback and reflection (Billett, 2011) – are critical to optimising student learning and a quality WIL experience yet require careful academic design.

Learning and assessment in WIL

Adequately preparing students for their WIL experience, particularly for international or less professionally connected students who may be unfamiliar with the Australian workplace, may require additional investment in online preparatory modules, inductions and similar interventions. Providing students with access to videos and other resources to guide and support how to manage workplace issues and conflict can be critical before and during their experience. Assessment in WIL is critical yet also poses challenges (Orrell, 2011), including for accounting students (Behn et al., 2012). Reflective activities and assessments will encourage students to draw on and make sense of their workplace experiences, developing self-awareness and enabling their role as a critical practitioner. Constructive industry feedback will also enable students to understand their strengths, weaknesses and capabilities requiring improvement to meet benchmarked standards for graduating students. While informing their personal development, as well as affirming their developing professional identity, it must be timely and constructive. Any summative evaluation of student performance needs to be carefully streamlined into other assessments, given concerns for bias among workplace supervisors when grading their students (Ferns & Zegwaard, 2014). Difficulties with capturing valid and reliable employer perceptions of student workplace performance were explored by Stanley (2013) and Jackson (2018b) for accounting and business students respectively. Jackling and Natoli (2015) advocated the need for a consistent approach in assessing student performance, as well as clear goals at the outset of accounting student internships to ensure a quality learning experience and outcomes.

Snapshots of alternative WIL in accounting

The following section reviews some examples of emergent forms of WIL in accounting, such as those presented in Table 1. These are typically offered as embedded or co-curricular offerings and not based in the workplace.

Digital game-based learning

Digital game-based learning (DGBL) encompasses both video games and simulations. However, whereas video games are usually based on elaborate, complex storylines with a high level of fantasy, simulations tend to be aligned to real-life settings. Although their attributes differ, both forms have

increased enthusiasm among accounting students to engage with specific learning criteria (Green & Calderon, 2005; Silva et al., 2019) and their entertainment power can significantly enhance the student learning experience (Carenys, Moya, & Perramon, 2017). Students benefit from the social interaction and challenge that DGBL provides, increasing their concentration, motivation and interest in accounting programs (Silva et al., 2019). Further, there is a clear association between gamification and the learning of professional capabilities (Levant, Coulmont, & Sandu, 2016; Sugahara & Lau, 2018), with business games proven a useful tool for improving competence, critical thinking and problem solving skills (Silva et al., 2019). One of the drawbacks of DGBL, however, is that students can only learn as much as the game allows them to, and feedback is prescriptive rather than tailored to suit individual learning styles (Capelo, Lopes & Mata, 2015). Additionally, game-based education often means less interaction between students and professionals than workplace-based WIL, limiting the opportunity to enhance communication skills and networking. Dimitrios et al. (2013) posit that excessive use of DGBL can engender 'a "coded" way of learning rather than an in-depth understanding of the accounting subject' resulting in a 'superficial learning on the subject' (p. 80).

Reality-based simulations increase the sensitivity of accounting students towards the difficulties they may face in a range of business environments (Dimitrios, Labros, Nikolaos, Koutiva & Athanasios, 2013), the instantaneous results allow students to learn from their errors in judgement, and can be time compressed to allow for long-term business scenarios (Capelo et al., 2015). Green and Calderon (2005) found the inclusion of a fraud risk assessment simulation into undergraduate auditing curriculum improved students' confidence in their business decision-making skills, personal judgements and professional standards. Furthermore, students who participated in the simulation activity had a higher level of satisfaction with the course, believing the simulation added value to their learning and enhanced their understanding of technical content (Green & Calderon, 2005). Other examples of DGBL introduce students to running a business and practicing accounting, allowing players to create a virtual empire with control over every aspect of the business.

Simulation and game programs used in accounting education are often developed by those facilitating the game, in accordance with relevant professional accreditation requirements (Capelo et al., 2015; Green & Calderon, 2005; Silva et al., 2019), and sometimes in collaboration with academics

(Pelser-Carstens, Bunt & Greef, 2019). They may also be designed by independent development companies, who adapt their programs to suit different professions. Some games and simulations have the capacity to include add-ons which require input from practicing professionals, providing students with the benefit of industry-based feedback which is external to their HEI (Riley, Cadotte, Bonney & MacGuire, 2013).

A significant benefit of DGBL is cost efficiency where simulations or games are specifically developed to teach certain concepts, reducing the amount of time needed to learn content matter (All et al., 2016). Business simulation is aligned to the Pathways Commission's call for greater integration of the 'real world' into accounting curricula (Behn et al., 2012) and is a valuable form of authentic learning for enhancing students' career readiness (Smith et al., 2014), particularly when incorporating industry mentor support and feedback. Simulated activities focused on building client relationships are particularly important, given graduates' potential for adding value through relationship management in an increasingly automated workplace (Batistic & Tymon, 2017). For example, accounting recruits in the EY (Ernst & Young) graduate program work through simulated situations that are focused on learning, rather than winning, with ongoing feedback (personal communication, 24 October 2018). Modelled on this, students could access and analyse a simulated company's dashboard of financial data and key information, liaising with upstream and downstream stakeholders globally, including clients and staff. They could review website information, data and email threads and answer questions in face-to-face discussions, or via discussion board, wikis and journals.

The educational context and cohort needs are fundamental, however, to selecting the most suitable teaching applications (Dimitrios et al., 2013). For example, Levant et al. (2016) found that Asian students were less inclined to find value in simulation-based education and preferred to gain knowledge through more abstract learning techniques. Further, Eckhaus, Klein & Kantor (2017) suggest that not all students participating in game-based learning appreciate the benefits of trial and error, finding failure hard to accept as part of the learning process. These shortcomings can be addressed by ensuring students understand the effectiveness of skill development through activity-based learning, and the value of practicing professionals' input in simulation and game design. Although the benefits of DGBL appear to warrant their inclusion into the curriculum for accounting students, the long-term

advantages in a learning context are still unknown (Silva et al., 2019), suggesting more empirical research is needed.

Mentoring programs

To make the accounting curriculum more relevant, mentoring has been suggested to help bridge the gap between theory and the actual practice of accounting (Adler & Stringer, 2018). By linking students to business professionals, students become attuned to the need for developing both technical skills and professional capabilities, as well as better understanding potential career pathways and options. CPA Australia, along with other accounting bodies, operates an eight-month mentoring program where earlycareer or mid-career accountants are paired with experienced members to build professional connections and help grow future leader potential. Adler and Stringer argue that amid budget constraints on resources to support technological and innovations in the curriculum, mentoring programs are an ideal pathway for improving career readiness. Smith-Ruig (2014) suggests that when mentoring programs are contextualised and ideally embedded into the curriculum, they will expose 'students to the realities of a workplace and a professional career; experience that is difficult to incorporate into classroom teaching' (p. 778).

Two prominent challenges associated with mentoring programs in HE are the lack of time mentors have to commit to their mentee, and incompatibility between a mentor and their mentee (Ehrich, Hansford & Tennent, 2004). Christie (2014) suggests that mentees often need more academic support than their mentor can offer, and unrealistic expectations result in a lack of trust in the arrangement. According to Ehrich et al., the mentor-mentee relationship can also be undermined by a mismatch of personality traits or a perceived lack of professional expertise provided by the mentor. Further, mentoring programs may be implemented as co-curricular arrangements, reducing engagement among time-poor students.

Project-based learning

Problem-based learning (PBL) is an approach to teaching that provides students with practice-related problems to promote the acquisition of knowledge to resolve a situation (Milne & McConnell, 2001; Wyness & Dalton, 2018). PBL can be an effective means of enhancing student employability (Hart, 2019; Taylor, 2011), engaging students with authentic data, often in collaboration with industry and/or

community partners, to solve real-world problems. Wyness & Dalton (2018) suggest that PBL in accounting education encourages students to work together in teams, managing and resolving arising conflict and enhancing leadership skills. Furthermore, by exposing students to real-life issues using a student-centric approach, PBL is a valuable and transformative pedagogical approach where students are often more alert and attentive (Sullivan, 2009). Stanley and Marsden (2012) advocate the value of PBL in accounting education, asserting that 'significant rewards can be reaped in student learning outcomes especially in skills development' (p. 286). Challenges, however, include the time needed to develop PBL programs, negativity commonly associated with teamwork, and the effort required by facilitators (Wyness & Dalton, 2018).

The use of third-party providers in the HE sector to deliver project-based learning is evident, their focus not only on student application of disciplinary knowledge but also the development of professional capabilities. One example of an online project which draws on digital technologies to enable virtual authentic experiences, is the Practera platform. This uses collaborative project learning pedagogy with students from various Australian universities to provide a learning experience using practice-based examples. Their programs are underpinned by Kolb's (1984) experiential learning cycle to develop professional competencies required for future work (James & Leese, 2018). Students are posed a real-world problem in a simulated environment and, under the mentorship of an industry coach and educators, extract and manipulate relevant data to deliver solutions and project outcomes which are aligned to their program learning outcomes.

A key advantage of such programs is their use of online technology which enables an equitable learning experience for on-campus and external students, yet programs are often charged on a perstudent basis and can prove costly. Students may also not gain the same exposure to industry professionals as other forms of WIL, meaning less gain in their understanding of work culture, building networks and career development learning. Hart (2019) suggests further research in this area is needed for confirmation that project-based learning is 'meeting the desired graduate employability outcomes of the curriculum' (p. 63).

Consulting

Consulting involves 'students (individually or in teams) providing consultancy services and information to others, including other students, industry partners and community organisations' (Kay et al., 2018, p. 11). One example of consultancy arrangements in the Australian HE sector is the Tax Clinic, supported by associations such as the Chartered Accountants Australia and New Zealand, and funded by the Australian government. Tax clinics provide general tax advice to individual and small business taxpayers (Lian, 2019) and are supported by enrolled accounting students who participate in the Tax Help Volunteer program where they complete the tax returns for local community members under a certain income threshold. Students spend a minimum of 14 weeks in the clinic helping clients and gain insights into working in a tax practice, including required professional capabilities and the use of accounting software. Lian argues the clinics not only benefit the taxpayers who utilise the free service, but also accounting students who have the opportunity to apply their theoretical knowledge in a practical way. Kay et al. also identify another example of student consulting among accounting students studying auditing at the University of Tasmania. Co-designed with industry, student teams evaluate the internal auditing processes of participating community partners and make recommendations based on their findings. While the benefits of consulting arrangements are clear, they require a working space adequate for client meetings, sufficiently private for confidentiality reasons, and demand a qualified clinic manager on hand to supervise students. Further, the focus is on practice and is less likely to produce gains in terms of insights into work culture, career pathways and broadening networks.

Incubator programs

Another form of WIL that can prepare students for future work is incubator or 'accelerator' programs where students are based in innovation hubs to develop ideas on new products and processes in a supportive environment. These incubator and start-up interventions provide support for early business ventures focused on new projects or processes, and consulting where universities facilitate consulting services by students to industry or the community (Kay et al., 2018). They not only advance business development but also encourage students to think of ways to create employment (Jackson & Bridgstock, 2018), important amid declining graduate labour markets. These often feature micro-businesses which find engaging in WIL challenging due to size and resource constraints (Department of Industry, 2014)

yet such programs may require significant investment in resources and facilities or developing partnerships with local incubators, hubs and co-working spaces.

Service learning

Universities Australia (2019) provide examples of service learning, where students work on tasks or projects focused on community outcomes. Such experiences develop a sense of civic engagement and responsibility, as well as providing valuable insight into the challenges faced by today's communities (Astin, Sax & Avalos, 2003). Their lack of discipline focus, however, means they may not be favoured by accounting students who prefer opportunities to acquire and apply theoretical concepts (Abeysekera, 2006). Further, students may have limited appreciation of employers' regard for rounded graduates, such as evidencing civic responsibility, particularly 'naïve' students who are less professionally-connected and therefore less aware of labour market demands (Burke, Scurry, & Blenkinsopp, 2019). As graduate employment is also largely sought in private organisations (Edgley, 2016), accounting students may also not see the value in engaging in philanthropic activities during their studies.

Hackathons and competitions

Kay et al. (2018) cite examples of hackathons, competitions and events which offer an intensive, themefocused activity, often undertaken in multi-disciplinary teams and co-designed by industry. These are typically short and co-curricular activities, possibly requiring travel or significant time beyond one's studies which may not suit all students.

Strategies to enhance WIL in accounting education

Institutional resourcing and support

Although a national framework for WIL in Australia does not yet exist, there has been valuable work on defining and gauging quality WIL (for example, Campbell et al., 2019), which broadly spans institutional arrangements, curriculum design and delivery, student experience, stakeholder engagement, and partnerships. Implementing quality WIL that overcomes both widespread barriers and those specific to accounting (Stanley & Xu, 2019) requires buy-in from both above and below on the value of WIL for enhancing career readiness, and not just a means of improving employment metrics. It is widely acknowledged that an institution-wide approach to WIL that is effectively resourced and supported may help to facilitate at-scale and transdisciplinary WIL offerings (Sachs et al., 2016). Kay et al. (2018) provide invaluable guidance on key enablers and barriers to embedding innovative forms of WIL that are not workplace-based, highlighting the role of leadership support, processes and logistics, recognition of workload and staff capability at an institution-wide level. Regular audits of current offerings against an institution, School or Faculty's typology of WIL provides a solid foundation for identifying gaps, as well as examples of practice. Clear understanding of accreditation and course requirements with respect to WIL, as well as industry stakeholders' capacity and preference for pathways for engagement, will help to understand which forms of WIL not based in the workplace are most viable and which best meet the needs of industry.

Investing in sustainable industry partnerships and catering to differing stakeholder needs, including regional partners, is critical. This may be achieved in different ways but key principles include clear information exchanges, open communication, reasonably resourced, and achieving mutually beneficial, meaningful and relevant outcomes (for example, Ferns & Lilly, 2015; Orrell, 2011). A further strategy is facilitating WIL on campus where universities actively engage in the role of industry partner and provide placement and other WIL opportunities for their students (for example, Universities Australia, 2019).

Teaching and learning

Close attention should be given to staffing WIL units to ensure those engaged have the commitment and skillset to deliver and are adequately rewarded for time allocated to industry visits, online sessions, mentoring and empowering participating students. Achieving scale in institutional WIL offerings also requires attention to diverse cohorts, particularly amid widening participation policies and rising enrolments among non-traditional students. This means ensuring all students can access a form of WIL that suits their needs, and which offers a comparable experience in terms of preparation for future work. This is particularly important for students of lower socio-economic status who may not have the resources or capacity to be based in the workplace, and those who are less academically strong and cannot meet any imposed minimum course average for workplace-based experiences. Identifying ways to embed WIL into a crowded curriculum and within the confines of course and accreditation requirements is important. One can flip components of existing core units to include WIL, such as adapting a research project to instead work with real-life data and clients with outcomes assessed by an industry panel. Another example could be conducting a field tour of an accounting setting(s), such as on-campus departments, government agencies, mid-tier practices and small businesses, followed by a reflective assessment and/or career action plan. Introducing an alternate WIL offering (project-based or placement) as a core component, and removing any elective options, could be viable for accounting degree structures. Importantly the placement and virtual, industry-based project must provide equitable outcomes for face-to-face and online students, as well as those based in regional or overseas campuses. Such arrangements help to achieve the ideal of scaffolded WIL experiences which commence early in the degree structure and conclude with a capstone experience.

Emergent forms of WIL often mean students do not apply for workplace roles or undertake interviews with potential hosts thus it is important to optimise industry exposure and incorporate career development to ensure comparable employability outcomes. This could include, for example, participation in networking seminars and industry events, combined with a career action plan or reflective piece on personal goals, potential development pathways and the identification and use of self-presentation tools to achieve career objectives. Reflective activities and assessments should explicitly encourage students to consider how their experience enhanced different aspects of their employability. Completing capability audits both prior and post-WIL (for example, Jackson & Edgar, 2019) may provide students with a benchmark to aid more informed evaluation of the value gained during WIL and how their capabilities compare with industry standards.

Increased support from professional bodies

It is critical that professional bodies promote and support emergent forms of WIL in the curriculum. As recommended by Stanley and Xu (2018), lobbying accrediting bodies to mandate WIL may support the allocation of funds needed for quality WIL. Broadening their suggested 100 hours of work experience to different forms of WIL, and those which are embedded within the curriculum, may be more equitable for students who find it difficult to secure extra-curricular internships, such as international students who have been exploited in their urgency to gain relevant experience in Australia (see Jackson, 2018d).

Professional bodies' endorsement of emergent forms of WIL may also enhance their perceived value among students and employers, important given graduates broadly favour workplace-based WIL for building networks, developing skills, and improving employment prospects (Jackson & Bridgstock, 2018) and current supply and demand imbalances for internships.

Support could be provided in a number of ways. First, financial support for the research, design, implementation and evaluation of emergent forms – particularly simulations and online projects which can attract significant costs yet could yield considerable at-scale benefits – could boost participation and aid student and institutional bids to enhance employability. It would also encourage accounting faculty to value research related to teaching and learning in the discipline. Second, professional bodies could adopt a brokering role and connect students with employers for different WIL activities, similar to the advisory service established by a chamber of commerce with four local universities (Jackson et al., 2017b).

Third, facilitating and/or supporting student engagement with start-ups, micro and small businesses in incubators and co-working spaces. These could be located within HEIs or industry premises and could encompass both traditional workplace models of WIL (internships), as well as project-based learning. This would enable business' participation in WIL, give students exposure to contemporary work environments, builds their networks, and develop their understanding of the benefits of working for small, agile companies who are considerable employers of new graduates. Further, such arrangements offer a rich environment for collaborative learning where accounting students can visualise and apply their theoretical knowledge, such as working on budgeting elements of wider multi-disciplinary projects spanning different industries and sectors, aiding the development of enterprise skills which are highly regarded by employers (Deloitte, 2019).

Better preparing students for recruitment

Increased exposure to public sector agencies, smaller businesses and the not-for-profit sector through emergent forms of WIL may broaden accounting students' aspirations for future employment beyond the Big Four. In particular, engaging in service learning and incubator programs could give valuable insights into the realities and benefits of a range of employment pathways, as well as a better understanding of the 'employability agenda' and the relative value of professional capabilities in different organisational settings. For example, incubator programs may encourage students to think about the importance of enterprise skills for accountants to create value through entrepreneurial and intrapreneurial behaviour.

Additional focus is required on guiding and supporting students on how to evidence their learning from WIL, enabling them to clearly and concisely articulate their achievements to different stakeholders, including future employers. It appears this is something that does not come naturally to WIL students when applying for graduate roles (Jackson & Edgar, 2019). Micro-credentials, digital badges, and ePortfolios can prove useful platforms for students to develop and communicate a personal narrative on their strengths and capabilities for the purposes of their career (Crisp & Oliver, 2019; Miller, St. Jorre, West & Johnson, 2017). Engaging in these tools may close the 'communications gap between job-seekers eager to share what they know and employers that struggle to understand and parse the capabilities of would-be employees' (Credly, 2017, p. 2).

E-Portfolios may be carefully mapped to an industry-relevant capability framework and each capability enlivened by, for example, brief videos from industry partners who explain their role importance in accounting. They require, however, marking and moderation which can be resource intensive and should ideally be undertaken in collaboration with industry. Engaging students with artificial intelligence software that supports their fine-tuning of LinkedIn profiles, resumes, and interview techniques can also help them to draw on their studies, extra- and co-curricular activities, life and work experience to evidence contemporary notions of employability.

Study limitations

This study is confined to WIL and does not consider other forms of authentic learning where students do not directly engage with industry or community partners. For example, a MOOC that is developed in partnership with industry, such as that between the University of Melbourne and the Bank of New York Mellon for Accounting Principles and Financial Analysis. These could prove particularly useful for work practices related to emerging and disruptive technologies, such as Blockchain, given the challenges posed by HE processes for curricula and educators to remain abreast of cutting-edge practice. We also note the importance of student participation in co-curricular and extra-curricular activities -

such as volunteering, paid work, networking events, and professional association activities – which may complement embedded WIL in enhancing preparedness for future work.

The study also does not consider the redesign of accounting curricula to, for example, skillsbased modularised programs (for example, EY, 2018; Gleason, 2018). One such example is the Institute of Coding which brings together universities, industry and educational experts in the delivering of innovative forms of learning to drive digital skills development. Another example is Purdue Polytechnic Institute's competency-based education which gives students an individualised learning program based on their interests with direct measurable learning objectives. Here, students receive oneon-one mentoring, with completion of the unit based on demonstrated capabilities rather than the completion of credit hours.

Implications and moving forward

This paper highlights stakeholders' collective responsibilities, and the need for collaborative action, in upscaling quality WIL in accounting curriculum to better prepare students for future work. For universities, this means hosting more accounting students on placement, better supporting industry partnerships, assigning adequate workload and giving recognition to staff involved in WIL, and facilitating networking among WIL personnel for professional development and to enable interdisciplinary learning. Universities also need to collectively work with accrediting bodies to identify ways to make valuable space in accounting curriculum for a broader spectrum of WIL activities across the life of the degree. Until that is achieved, more creativity and investment of time and resources is needed to integrate industry engagement into accounting curriculum, and/or develop co-curricular offerings that do not disadvantage equity groups, so all students can leverage the benefits of expanding networks, authentic learning and the development of career self-management skills.

The accounting industry evidently plays a critical role in facilitating WIL in the curriculum. Hosting more students on placements, providing valuable service-learning opportunities, and actively engaging with accounting academics through the provision of authentic data, guidance, mentorship and feedback will enable complex problem-solving and a greater understanding of the challenges of contemporary work among accounting students. Professional associations and accrediting bodies must carefully consider practical strategies that can grow WIL in accounting education, helping to bridge skill gaps and produce accountants - from all backgrounds - that are prepared for Industry 4.0. As well reviewing accreditation requirements, they should support research that experiments and evaluates different forms of WIL to create an evidence base and associated resources for future educators and accounting professionals. This support can extend to more actively connecting students and professionals to facilitate more placements, mentoring, hackathons, case-based and problem-based learning.

There already exists a body of evidence on the value of WIL for preparing students for future work. Insights will further grow with forthcoming annual data from new items in the Graduate Outcomes Survey on the relative value of different forms of WIL, work-related and co-curricular activities for a range of employability and employment measures. What is now needed is a collaborative push to mandate WIL in accounting curriculum, such as in Health and Education, in a way that provides options for different forms and is therefore flexible to diverse student needs and varying contexts. Greater buy-in and collaboration from the profession, accrediting bodies and professional associations, in partnership with universities, will help to create education that produces a pipeline of talent that is better prepared for rapid change and evolving client demands.

Future research is therefore needed on evaluating different ways to embed WIL into accounting education and their impact on the employability of students from different backgrounds. Examining accounting recruiters' perspectives on the value of micro-credentials, digital badges and ePortfolios will also help to inform authentic learning and assessment in emergent forms of WIL.

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Туре	Description	Example in accounting
Placement/internship/	Application of discipline-related	Completing a Vacation Program at
practicum (including	knowledge and skills under the	the Big Four, as part of an academic
micro-placements,	supervision of an industry	WIL unit during summer session.
cooperative education,	professional.	
Project-based learning	Completion of a series of tasks intended to meet an intended	Solving a complex problem for an accounting firm / department in small
	client brief, often multi- disciplinary in nature.	groups and pitching the solution to the client by written report and oral presentation
Consulting	Application of discipline-related	Advising local community members,
C	knowledge through the provision of consultancy services to	or small businesses, on tax or financial planning matters.
Mentoring	Developing a relationship with an	Pairing with an experienced
e	industry professional for the	accountant, facilitated by a
	purpose of career development	professional association or
	learning and enhancing personal	university, to clarify career
	growth.	objectives, career pathways and the transition to employment.
Simulation and games-	Practising the application of skills	Applying accounting standards, with
based learning	and knowledge through games	peer feedback, in simulated scenarios
	that reflects industry standards.	use authentic data.
Incubator/entrepreneurial	Developing enterprise	Conducting financial modelling and
experience	tasks which meet a particular	disciplinary student team in
C	community or business need.	preparation for a business launch.
Service learning	to most a community need under	Engaging with and supporting
	the guidance of a community-	preparation of budgets financial
	based professional.	reporting and establishing costing
Hackathons and	Participation in short-term events.	Participating in a team-based
competitions	competitions and other intensive	challenge, in partnership with
	activities focused on a particular	industry and during an intensive
	theme to develop enterprise	study period, to find innovative
	capabilities.	solutions to real problems in the
T. 11 '		accounting industry.
Field experience	Observing and participating in the application of discipling	Undertaking a tour of an accounting
	related knowledge and skills in a	university) and reflecting on
	professional setting under the	differences between expected and
	guidance of an expert of	actual practice, and any impact on
	professional in the field.	career objectives and aspirations.
Case-based learning	Engaging in real-world examples	Analysing and evaluating the
	under the guidance of an expert	application of accounting standards
	or industry professional to	in different scenarios, facilitated and
	related knowledge and skills.	guided by an accounting professional.

Table 1 Summary of different forms of WIL