Wicked work: Preparing professionals of the future

Melissa Sullivan School of Education and the Arts, Central Queensland University, Brisbane, Australia

Bobby Harreveld School of Education and the Arts, Central Queensland University, Brisbane, Australia

Julie Fleming School of Education and the Arts, Central Queensland University, Brisbane, Australia

Email: m.sullivan@cqu.edu.au

ABSTRACT: Higher education institutions are under increasing pressure to graduate work-ready professionals. Work Integrated Learning (WIL) is a teaching strategy aiming to address this requirement. The Australian WIL literature includes perspectives from industry and students, however, the WIL educator is largely silent. This collective case study considers how educators facilitate professional pathways through WIL. A stakeholder theory framework was used to examine WIL through the experiences and perceptions of WIL educators. It was found that educators mobilised professional pathways of learning to support the student in becoming professional through WIL. Preparing future professionals in the complex environments between education and work is fraught with difficulties. Educators negotiate, mediate and facilitate to manage the wicked problems that WIL presents.

Keywords: Professional pathways; higher education; educators; work integrated learning

Modern thinking about higher education demands that universities provide knowledgeable, capable, work-ready graduates. The strategic development of work ready graduates has drawn the broad attention of governments, media and higher education providers. Work Integrated Learning (WIL) is an acknowledged practice utilised by universities to prepare students for work in their relevant professions. However, WIL is also renowned for its unruliness, its precarious balancing of theory and practice, and its dependence on external industry based organisations to be mobilised. The extent of WIL's unruliness is highly contextual; for example, geographic location, discipline compatibility with WIL strategies and industry relationships all are relevant. The literature documents both industry perspectives of WIL and student perceptions. However, the educator's voice is predominantly silent. Yet it can be argued that the WIL educators are the most critically placed people in the higher education system to influence graduate employability through their work. Their experiences should be known, their voices should be heard, and their work should be understood if employability is perceived as an important issue for universities. Educators in WIL span two broad and complex environments: higher education and work. How they negotiate these environments to prepare the professionals of the future is largely unknown. This paper considers how universities prepare students for professional pathways using Work Integrated Learning, through the perspectives and experiences of the educators.

This paper has been organised as follows: firstly, literature pertaining to WIL in Australian Higher Education (HE) is considered, followed by the theoretical framework, research question and research design for this study. The findings section explores the experiences of three WIL educators in three different disciplines in relation to preparing their students for the professions. The discussion section explores educators' perceptions of the student experience in WIL and how educators prepare students for their professional future, before concluding comments are made.

WIL IN AUSTRALIAN HIGHER EDUCATION

Work Integrated Learning (WIL) has been a common response to increasing work readiness in students, predominantly because curriculum driven supervised work experience has been touted 'a magic ingredient improving employment rates of graduates.' (Kettis, Ring, Gustavsson, & Wallman, 2013). Hence, Universities are increasingly utilising WIL curriculum to develop students with comprehensive workforce capabilities (Abeysekera, 2006; Choy & Delahaye, 2011; Smith & Worsfold, 2015). A primary challenge in doing this is transcending the 'vendor' relationship that traditionally exists between higher education, students and industry, and developing a new space where the tacit knowledge of employees in partner organisations can be more strongly utilised to further develop graduate outcomes (Abeysekera, 2006; Choy & Delahaye, 2011). Listening to industry, and monitoring changes in the employment landscape is critical in ensuring that HEIs are focussed on developing suitable knowledge, skills, attributes and attitudes. The challenges of this are unsurprising given the time and commitment required to establish and maintain industry partners (Bates, 2011; Brown, 2010; Gamble, Patrick, & Peach, 2010) and the tensions and dilemmas that exist between industry and Higher Education (Singh & Harreveld, 2014). However, while authentic work place learning has been thought to develop team skills (Smith & Worsfold, 2014) and problem solving skills (Yap, 2012) in particular, graduate transition into employment remains an issue.

In this study, the learning processes that facilitate the transition between study and work are referred to as professional pathways. These learning processes can be aligned with four key aims of HE that emerged from an overview of the Australian Higher Education Sector in 2004 (Department of Education, Science and Training, 2004). It was found that most Australian universities strive to develop:

 Knowledge attributes - in general, graduates are expected to have good literacy and numeracy skills, the ability to communicate and listen and appropriate discipline-specific knowledge.

- Thinking attributes graduates are expected to have good conceptual and problem solving skills, the ability to question, be creative and to combine theory and practice.
- Practical attributes emphasises the ability of graduates to use information technology and be proficient in any other technical skills appropriate to their discipline. The ability to initiate and respond to change is also considered an important attribute.
- 4. Personal attributes and values graduates are typically expected to have a commitment to learning, be flexible and able to work in a team, have leadership skills and understand the concepts of ethical action and social responsibility.

Development of these attributes is critical to the success of the graduate in their chosen line of work. Therefore, in this paper, professional pathways are defined as learning strategies supporting the development of knowledge attributes, thinking attributes, practical attributes and personal attributes and values relevant to the profession.

As they cross and re-cross the threshold between education and work, students in WIL develop the skills and experience they need to become employable, work-ready professionals. Professional pathways are highly contextual, and, necessarily, temporal. Students begin their higher education experience because of their interests, motivations and the future pathways the discipline can provide. Professional alignment between discipline and industry is an important indicator of legitimacy for higher education. Hence student employability in relevant professions following graduation becomes a significant marker of higher education success. It is important to consider WIL experiences as in between enrolling in university and exiting university as an employable, work-ready professional. The findings presented in this paper provide educator insights into the student experience during this time, as they negotiate professional pathways through WIL.

THEORETICAL FRAMEWORK

Stakeholder theory has been evolving in the literature since 1984, when Freeman suggested it as a strategic management approach for organisations. Since this time, there have been many different perspectives of stakeholder theory, and the subsequent stakeholder management theory, considered in organisational context. Stakeholder theory is useful in WIL contexts as it provides a universal perspective through which relationships in WIL can be considered, despite the differences between HE disciplines and professions the disciplines serve.

Educator perspectives of WIL stakeholder relationships are examined in this paper. The educator is positioned as the definitive stakeholder. The definitive stakeholder is the stakeholder that possesses all three stakeholder salience attributes: power; legitimacy and urgency (Mitchell, Agle & Wood, 1997, p. 874). This stakeholder is highly influential, and is situated centrally, overlapping and interconnecting with other stakeholders, showing their relative power and authority in the group. Other stakeholders depend on the definitive stakeholder, appropriately reflecting the educators' critical position in WIL. Frooman (1999) further developed stakeholder theory by proposing that stakeholders utilise influencing strategies that impact upon stakeholder relationships. Rowley (1997) also considered social network constructs acknowledging that society is an influential stakeholder in its own right. In this research, the interplays between stakeholders from the perspective of the educator are examined through these stakeholder theory perspectives.

RESEARCH DESIGN

This study utilised a collective case study methodology, a study of several case studies that provides and insight into a particular issue (Cresswell, 2005). Collective case studies are useful when a variety of 'cases' are required to answer a question pertinent to a broader social, geographic, political or economic context (Cresswell, 2005). In this research, three WIL educators' perceptions and experiences were examined within the broader context of WIL in Australian higher education. Specifically, this study sought to determine how WIL was mobilised by educators to prepare students for their professional future. The study was framed using the following research question:

RQ: How do WIL educators facilitate professional pathways for their students?

Participants initially responded to an online survey administrated through survey monkey and distributed via university associations. Survey results then informed the semi-structured interview which participants voluntarily opted into at the end of the survey. The original research involved 23 survey participants and 13 interview participants. Participants who opted into the interview process worked as WIL educators at six different Australian universities across 12 different disciplines. Anonymity was assured to participants, and pseudonyms have been used in reporting the research findings. Thematic analysis (Saldana, 2015) was used during four coding cycles: the first cycle involved manual coding, the second cycle was coded through Nvivo before being exported to Excel for the third round of coding. Finally, categories from the third round of coding were re-examined, and themes were identified. For this paper, the perspectives and experiences of three participants are examined.

Participants

Three of the interview participants have been selected for the purpose of exploring the connections between WIL and professional pathways from the perspective of WIL educators. These participants are from two different universities and three different disciplines. Their backgrounds are summarised in the table below. (Table 1 included at end of document)

Experiences and perspectives of the participants were the units of analysis in this study, and are summarised in the next section.

FINDINGS

The following section reveals the experiences and perceptions of three WIL educators currently working in Australian universities. They each presented distinct perspectives regarding the relationship between WIL and facilitating professional pathways for their students. Penny discussed professional pathways from the perspective of the graduate. Greta discussed professional pathways from the perspective of the new student. Charles did not identify employability as an outcome for his WIL unit, however he raised important concerns about linking WIL with professions. Their experiences are detailed in this section.

Penny integrated professional pathway learning into her WIL unit as a consequence of graduate feedback. She shared her experience:

'A lot of them I sort of lose track of and I don't see, but some of them sort of pop up and come back and contact me after, you know, maybe six months and say, 'I just can't find any work.' And I'm like, 'Well, what are you sending out?' (and I'd see) what they were sending out and, well it's no wonder -it's no wonder you're not getting any response to that!'

Penny included a CV preparation session for students in the final two weeks of semester in her WIL unit to help students be more prepared for work. She found that some students doubted her: 'Sometimes they look at, you know, academics (and think), what would you know?... and I'm like, well you know I do have some experience.' She also found that emphasising professional pathways enabled her to distinguish between those who succeeded in finding professionally aligned graduate opportunities, 'the students who have been conscientious the whole way through, they get snapped up straight away'; and those who struggle to find a way forward into employment, 'the students who've just tried to sail through and do as little as possible to just pass, they struggle and they should, to be honest.' Penny's emphasis on pathways beyond university has provided insight into why some students succeed and others fail professionally after university studies.

Greta identified that her students' preconceptions about professional pathways when they come to higher education can be influential. She explains:

'We have a lot of people that come into the degree not knowing whether they'll be able to do it or not ... and first year students that come in not really knowing whether they want to be a teacher or not,

coming in with the pressure, 'Mum and Dad are teachers so I'm going to be a teacher'. I could almost name a handful of students where I know that they're not interested but they're still persisting because there's the pressure from home.'

Because of this uncertainty from students, Greta focuses on *'identifying those goals.'* She asks her students: *'What are your goals for this placement? Let's have a look at them. How are you going to go about actually trying to achieve those goals?'* Greta then revisits these goals throughout the placement: *'Let's have another look at those goals. How are you going? Have you met them? Alright, if you've met them, what are some other goals that we can now work towards? If you haven't met them, well, what do you think we can do about that?'* She emphasises the need for *'constant checking'* to ensure they are on the path to becoming a professional, and that they still want to be on that path.

Greta also suggests that the workplace supervisor that students experience can determine the student's professional pathway. She describes herself as being 'the person who has to try and help both of them adjust in the situation so that ...the pre-service teachers can achieve what they need to achieve... it is about going in and finding the middle ground.' Greta also discussed the requirement to tell a 'white lie' at times to keep professional pathways open and 'to spare people's feeling more than anything.'

Charles' perception of his WIL unit was that it did not provide opportunities to develop understanding of or access to professional pathways for his students, and questioned the value of WIL in his discipline. He felt that WIL was '*a reporting requirement*' and not '*well-suited*' to his students. His perceptions highlighted the disconnection between the theory based approach to higher education, and practices of professionals in the fields in which his students will work. His perception was that WIL did not necessarily assist students to gain employment in his field.

'The placements available do not align with the work that our graduates will eventually do. I'm not convinced we have a clear understanding of what work placement is for, what the benefit is in a

profession like ours. What they actually do in placements and what they actually do later on is so different. So I wonder, what is the role of placement anyway.'

Charles discussed challenges in findings suitable placements for his students that reflected the professional pathways they were seeking. He lamented, '*Most of our students come from farming backgrounds. They know how to drive a tractor. What use is it if they drive a tractor?* 'Opportunities to undertake placements that are aligned with professional pathways were scarce in Charles' experience. This can be partially attributed to a lack of relevant equipment or resources and the nature of rural agricultural businesses. However, the placement provider's potential inability to appropriately supervise students is of critical importance. Charles was interested in finding out more about the benefits of WIL in agricultural sciences, however his comments during the interview suggested that he remained unconvinced of the benefits of WIL for future professionals in his field.

DISCUSSION

Two themes emerged from this collective case study: becoming professional and preparing professionals. These themes contribute to a greater understanding of the work that educators undertake to assist students to find then fulfil, their own professional futures.

Becoming professional

These educators shared their experiences of students engaged with WIL and their experiences of becoming professional through their WIL experience. Jackson (2017, p. 835) has argued that 'it is critical that HE allows students to gain a clear understanding of and connection with the core values, expectations and behaviours central to most professions' and in doing this have an opportunity to 'construct their own pre-professional identity'. The educators in this study demonstrated this connection with becoming professional through WIL in different ways.

Greta drew on her experience and knowledge of the teaching profession to check in on her students' intentions throughout the unit. She identified external influences that may have influenced

their decisions to engage with the teaching profession, and did not take for granted student compatibility with professional pathways on offer through her discipline. This reflects the growing emphasis of the university experience as a testing platform for professional compatibility, where students can understand the requirements of the profession and, in the case of WIL, see if they can perform to those standards (Jackson, 2017; Tomlinson, 2012).

Penny used graduate feedback to realign her WIL unit so that professional pathways were more accessible and more easily understood prior to graduation. Her reflexive practices enabled professional pathways to be clarified in what is a complex and rapidly changing professional landscape in her discipline. This reflexivity is important as students become professional in multifaceted, relational and fluid ways (Scanlon, 2011). Students require the ability to respond to fluctuating work environments and be prepared to demonstrate a 'duality of employability' (Brown, Hesketh & Williams, 2003) emphasising that job market conditions, and the competitive environment are not static.

For Charles, the WIL experience was less successful in fostering development of professional pathways in alignment with career opportunities. He sought to determine the value of WIL in his profession, and questioned if WIL was the best way forward in aligning students in his field with professional opportunities. Charles' perceptions can be considered in light of professional socialisation: 'students' acquisition of values, attitudes, skills and knowledge pertaining to a professional sub-culture' (Page, 2004, p. 1). According to Sonnenschein, Barker and Hibbins, (2018, p. 1296), 'considering a socialisation perspective in higher education helps to identify changes that could be implemented to develop more effective university degree programmes.' In Charles' view WIL in his unit was not properly aligned with the profession. Professional socialisation was not able to be mobilised as a professional pathway, therefore opportunities to improve the professional alignment in WIL becomes difficult. Opportunities in his regional location in which his students could experience professional socialisation as part of WIL were scarce. The geographic nature of regional universities present significant challenges for WIL in some disciplines because of the professions they

serve. However, his acknowledgment that placements are not enhancing employability of his students is a starting point for re-imaging professional pathways for remote and regional students.

These educators identified challenges in their WIL work in assisting students to become professionals in their fields. Educator reflexivity was central to clearing the pathways for students in their effort to become professionals in their fields. This not only highlights the significance of the WIL educator as critical in developing students' professional futures, it also draws attention to the temporality of the student journey in becoming professional and the requirement for educator knowledge of professional pathways and the cross-roads and speed bumps encountered along them. The complexity of each singular case in this collective case study reflects the boundary spanning nature of WIL work, and the broader complicated nature of transitions through HE into professional arenas. If educators are able to mobilise WIL in proper alignment with professional opportunities, pathways for students to succeed at work will be forthcoming.

Preparing professionals

Reid, Dahlgren, Petocz, and Dahlgren (2011) suggest that students transition from being expert students to novice professionals, and it has emerged in this study that the educator is critical in mobilising this process. However, this is not a one -way relationship, with the student as primary beneficiary. Scanlon (2011, p. 76) suggests there is a 'mutual interplay between the institutions of higher education and the students and teachers that populate them'. Such complicated relationships in complex environments demand that it is not only important the impact of education on people is considered, but the impact of people on education (Scanlon, 2011). Students' impact upon their own educational outcomes through lack of commitment to their studies was experienced by Penny in her WIL work. Marshall (2018) notes that students experiencing time deficiencies presents a significant problem for HE institutions. He suggests that overwork can be an issue in some disciplines, however, the responsibility lies with the university in preparing students, and providing relevant support. In the case of WIL educators, their work has an important impact upon the student and their future professions. Their involvement is critical, but not singular in its effort. Students undertake a journey in WIL that is supported by many, and without the involvement of educators, as well as administrators, mentors and peers it is unlikely that a transition would be possible. Dahlgren (2011, p. 79) suggests that there is no 'natural identity' that can be bestowed upon others, and that 'the creation of identity is individual', and under 'constant challenge'. In this sense, the educator is not all powerful, which was reflected by the participants in this study.

Preparing professionals is fraught with complicated scenarios, impacted upon by economies and government imperatives, and the shifting demands of global, agile, susceptible work places Educators as negotiators, mediators and facilitators emerged as central to WIL work in preparing students for this dynamic environment. An educator, in a simple teacher-student interaction within one WIL educational experience, cannot bestow the desired professional identity or meet the professional challenges that such an environment presents. Educators work through such complexities by emphasising learning pathways, empowering and enabling them towards a professional future. This study's participants indicated the reflexive, responsive and at times spontaneous nature of the WIL experience. However, in sharing their experiences and perceptions, WIL educators have an opportunity demonstrate the influence of the people, of the students and the teachers, on education, and to influence the work of others in preparing professionals for the future.

WICKED WORK

Rittel and Webber (1973, p. 165) refer to problems as: 'discrepancies between the state of affairs as it is and the state as it ought to be'. The WIL experience can be similarly defined. WIL addresses the gap between education and work, and aims to address the student's growth from theoretical knowledge to practical and professional competency. WIL allows students to visualise the gaps in their knowledge and their competencies, and select pathways to fill them (Jackson, 2017). It is the work of the educator in WIL to assist students in realising a pre-professional identity, in enabling

professional socialisation and in presenting viable pathways through which they can become professionals.

Educators grapple with problems the gap between 'the state of affairs as it should be and the state it ought to be' throughout the WIL experience, as students experience the worlds of education and work and the spaces in between. These experiences, as articulated by the educators in this study, are rarely simple, and can be more accurately portrayed as 'wicked'. Drawing on Conklin (2003); Knight (2007) and Rittel and Webber (1973), Beckman (2017, p. 546) defines wicked problems as follows:

These are problems that resist definition; that require you to think of all the possible solutions before you can even understand the problem properly; that are presented differently by different stakeholders, and shift shape even as you try to find out about them; that are not accessible to trial-and-error testing, because every tried solution generally involves a significant, potentially irreversible, change to the problem; and that, at best, are 'resolved' rather than 'solved'.

Educators in WIL wrangle with wicked problems: wicked problems are the focus of their work. The complicated, boundary-spanning, temporal and transitionary environments of WIL ensure that no experience is straight forward, involving multiple stakeholders with multiple priorities and necessarily multiple perspectives that complicate an already challenging environment. Such an environment ensures that the work undertaken by WIL educators to prepare professionals of the future is, indeed, wicked work. Much can be learned from the experiences of educators in this field, and as such, their voices should be heard.

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Participant	Discipline	Previous	Highest	WIL approaches
		profession/s	qualification	
Penny	Media	Public Relations	Doctoral Degree	Industry placement,
				Project collaboration,
				Event networking,
				Simulations
Greta	Education	Primary teacher	Doctoral Degree	Industry placement
Charles	Agricultural	Engineer	Doctoral Degree	Industry placement
	science			

Table 1: Participant overview