Development of employability capability during the degree: a cross-sectional cohort design to establish proxy longitudinal baseline data

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Abstract:

The Australian Higher Education sector is undergoing significant change, with a shift from a regime of low-accountability and self-accreditation to a more regulated structure that focuses on outcomes and risk. In the outcomes focus, the tertiary sector is progressing towards a more standards-based regulatory framework, with attention being paid to the way that standards of student achievement are demonstrated and “assured” or validated through a process of “consensus moderation”.

In parallel with these shifts, stakeholders such as government, industry and graduates, are putting pressure on educational institutions to build employability capabilities into the curriculum, and to develop more robust measures to show evidence of the development and achievement of such capabilities. Stakeholders perceive this as a mechanism for ensuring employability of graduates and enhancing the knowledge capital and subsequently the economic growth of Australia.

To address this demand, universities and vocational education and training (VET) organisations are establishing strategies to ensure the student experience incorporates authentic learning and assessment. Work-integrated learning (WIL) is at the heart of many of these strategies. However, relatively little quantitative, comparative and nationally generalizable evidence exists to quantify the impact of WIL on the employability of graduates.

This paper reports on some preliminary work from a project funded by the Federal Office of Learning and Teaching. The overarching aim of the research is to determine the impact of WIL on the employability of graduates. Preliminary results from a cross-sectional study of year cohorts will be reported and discussed to show the operationalization and validation of measures of employability and work-integrated learning dimensions.

Keywords: Work-integrated learning; employability
Development of employability capability during the degree:

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The preparation of students for transition from study to employment has been an evolving theme in discourses about higher education for decades but has become increasingly salient in the past 15-20 years. In Australia this discourse is further complicated by increasing government interest in the processes and products of higher education. This is fuelled partly by a concern with positioning the nation positively in a global knowledge economy, and partly by pressure from industry lobbying aimed at shaping the outcomes agenda away from education towards employment-readiness to facilitate cheap reliable recruitment. Further, students are increasingly demanding a return on their investment in education through securing gainful employment upon graduation. Thus three of the four key stakeholders in the system are aligned in the view that employment-readiness should be a key outcome of a higher education.

The missing voice in this discourse is that of the fourth key stakeholder, the academy. Academe is grappling with the tension between promoting higher order learning on the one hand and addressing learning-for-employability on the other. Sometimes the distinction between these two is not significant (such as in the medical science disciplines) while in other instances it is substantial (such as in sociology, philosophy, mathematics, physics – the traditional ‘trivium’ disciplines and their contemporary offshoots). One way the sector is addressing the perceived gap between the graduate learning outcomes and the desired employability outcomes is through work-integrated learning (WIL). There are other curriculum innovations being trialed also, in Australia and elsewhere (e.g. Hong Kong), such as the “capstone” subject or experience (which may or may not involve WIL).

Curriculum innovations are generally well-theorised and are underpinned by a solid evidence-base. In the case of WIL, there are many studies which report on isolated
instances of a range of WIL-based subjects. However, there are very few studies that attempt a comprehensive analysis of the impact of WIL curricula on employability outcomes for graduates. The study from which this paper derives is one designed to articulate and quantify the impact of WIL on employment-readiness across a comprehensive range of disciplines.

Broadly defined WIL is a pedagogy that brings together, in an integrative way, theory and practice; which may or may not occur in a workplace (Orrell 2011, Smith 2012). Further, WIL has different meanings, purposes and constitutional (i.e., design) characteristics in the different disciplines (Smith 2012). As a consequence it makes little sense to think of WIL as a singular and stable set of activities, the same in all instances. However, amid the variety, there is an underlying and unifying set of causal processes that have their motivational springs in experiential learning.

Dewey (1916), drawing out the pedagogical implications of his sociological and socio-psychological view of the learning process, argued that "if knowledge comes from the impressions made upon us by natural objects, it is impossible to procure knowledge without the use of objects which impress the mind". The idea then is that curriculum undergoes a transformation from stock-of-content-knowledge to facilitated-learning-process. In this way, curriculum innovations such as WIL participate in that transformation from passive to experiential learning process, bringing the learning into contact with the world for the purposes of learning. Whether the “world” the student is exposed to in this process is the real / anticipated world of their future work, or a simulation of same, the process relies heavily on the construct of authenticity (Smith 2012).¹ In contemporary settings, ‘authenticity’ refers to the closeness of the match between the educational activity the student undergoes and the

¹ Of course, Dewey’s views on the purposes of education are elided if we only focus on his social-psychological view of the appropriate processes for learning. For instance he says in My pedagogic creed (1897) "to prepare him [sic] for the future life means to give him command of himself; it means so to train him that he will have the full and ready use of all his capacities" (p. 6; emphasis added); but that is another story for another time.
sociological reality of work that they will encounter after graduation. Thus, although specific instances of WIL curricula may look very different on the surface, they are deeply connected to each other via these two notions – learning from experience and authenticity.

Activity 1 – Literature review

If the complexities of WIL curricula are reduced by their sharing of common theoretical threads, the same may not be said of employability. A survey of the literature for this study has revealed a vast array of disparate definitions and emphases each putatively constitutive of some or other notion of employability. Another comprehensive review, conducted by Jackson (2010), demonstrates this variety, with 41 constitutive attributes identified. Earlier definitions foreshadowed this breadth of meaning. The following serve as instances:

- A set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy (Pegg et al 2012 citing ESECT based on Yorke 2006).
- Employability is not just about getting a job…is more than about developing attributes, techniques or experience just to enable a student to get a job, or to progress within a current career. It is about learning and the emphasis is less on ‘employ’ and more on ‘ability’. In essence, the emphasis is on developing critical, reflective abilities, with a view to empowering and enhancing the learner. (Harvey 2003 – emphasis added)

Both of these seminal definitions anticipate the breadth of scope of this idea of employability; it is an omnibus collection of skills, qualities or attributes and meta-skills.
Activity 2 - Method

In spite of this definitional accretion it behooves us to try and specify some key or core elements to employability. To this end the project team has deployed three strategies. The first is the literature review already alluded to. The second strategy was an attempt to bring the hydra of employability under some control by holding a congress of all team members (13 university representatives in all, minus a few who could not make it to the meeting) at which there was an attempt to limit the range of attributes we would measure for the national project. The third activity was brief interviews with alumni who had experienced WIL in their program of study. Activities 2 and 3 are reported next.

Activity 2 - results

The results of activity 2 were only moderately successful; we reduced the original list but still retained 19 attributes as “worth measuring” including:

1. Authenticity of experience
2. Experiences learning or working with diverse others
3. Discipline knowledge and skills
4. Integrative learning outcomes (application Smith 2012)
5. Integrative learning outcomes (Boyer)
6. Global perspective outcomes
7. Self-management
8. Intellectual openness
9. Industriousness (OCB related)
10. Autonomy
11. Time management and project management
12. Political savvy
13. General Self-efficacy
14. Specific Self-efficacy
15. Resilience
16. Life-long learning
17. Ethical awareness
18. Career development learning
19. Emotional intelligence

Activity 3 - Method

In the third of three strategies to help identify the necessary elements of employability as an impact of WIL telephone interviews were conducted with nine alumni who were known to have had WIL placement experiences. All interviewees expressed consent verbally; interviews were audio recorded; and all interviews were brief (average duration of 15 minutes). Interviewees were asked to identify what they perceived as the most significant impacts of the WIL placement experiences in terms of preparing them for the world of work.

Activity 3 - results

It was unsurprising that in a short and focused interview in which Alumni are asked to describe briefly the impact of their WIL experience on their Work-readiness, they articulated pragmatic skills and confidences gained from their WIL experience, rather than a wider range of attributes which the literature review revealed underpin employability, from prior work in the field, and from their experience.

The alumni interview data point to four distinct primary domains of impact on students:

1. Authentic learning
2. Career, field of discipline, and job choices
3. Workplace skills and confidences
4. Self-knowledge and worth
**Authentic learning includes:**

- *Experiencing and observing the authenticity, scope and variety of a “real” workplace* – recognition of the rich and complex reality that contextualizes work in a workplace;

- *Experiencing and observing the complexity* – recognition of the rich and complex reality that underpins workplace operations;

- *Relating to a potential workplace* – being able to situate self in the workplace in the future based on the exposure during placement.

**Career, field of discipline, and job choices includes:**

- *Confirming, clarifying or precipitating a change* – the impact experience in placement has on commitment to current career trajectory (can be affirming or negating);

- *Job opportunity or advantage* – the advantage in the job market they gain by having had industry experience;

- *Commitment to facilitating effective WIL, as employers or facilitators* – aware from their own experience that problems can and do arise, taking opportunities to enhance/improve WIL for other students, and implementing strategies for early detection and mitigation of problems.

**Workplace skills and confidences include:**

- *Threshold readiness* – confidence in applying for and being interviewed for a job (not a “threshold concept” *a la* Shulman);

- *Entry readiness* – confidence in ability to apply theoretical knowledge in the workplace enabling them to fit in and manage the job;

- *Workplace acumen* – observing/learning/reflecting on workplace structure and interactions, to build workplace insight, shrewdness, penetration, judgment, intelligence,
wisdom, expertise, perspicacity, sharpness, good judgment; understanding the structure, policies, processes and complexities, knowing how things happen day-to-day, and how to act/interact;

Workplace processes and protocols – developing confidence in the pragmatic and operational aspects of the work environment;

Workplace interactions – interpersonal communication with peers and seniors, client service and management;

Discipline expertise – enhanced sense of the value of the knowledge acquired in the degree;

Relating theory and practice / transferring knowledge – consolidation of theoretical knowledge by observing it being used operationally and integration or application of skills learnt in class with activities in workplace.

Self-knowledge and worth includes:

Reflective practice and growth – opportunity and stimuli for reflection on knowledge, skills, learning, career;

Self-worth and understanding – validation and self-knowledge beyond work choices and self-efficacies emerge in the descriptions of self-reflection and development, rather than in responses to prompts about self-efficacy;

So the next question is “How does the alumni view stack up against the literature?”. Table 1 provides an overview of the comparison of these domains with cognate elements in our literature based list.
Table 1: Mapping of dimensions of employability emerging from alumni interviews with those abstracted from the literature

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Discussion

Observing the pattern of marks in the cross-tabulation of constructs several things are worth noting. First though most of the qualitative data categories find affinities (most very clear and strong, some more tenuous) with the literature-based dimensions of employability, some do not. These include: relating to a potential workplace (an act of envisioning a future in which students can “see” themselves back in “this” work environment post-graduation); a commitment to facilitating effective WIL for future students once established as employers; and awareness of workplace processes and protocols (a very pragmatically-focused construct about the operational aspects of the workplace).

These are genuinely new ideas for consideration, and interestingly they traverse the terrain from the tiny details of operational environments through a phenomenological act of imagination to an ethical commitment to provide not just WIL for future students (given the chance arises) but effective WIL (addressing and alleviating various negative experiences had during their own placements). This is a fairly disparate collection of outcomes to say the least.

The second observation is that there are a great many of the literature-based constructs that alumni interviewees did not mention during their interviews; these are listed below:
The question is why are these ten outcomes *not* mentioned by students as consequences of their WIL experiences? One plausible account is that some of them would emerge in the awareness of persons as they mature. Ethical awareness, intellectual openness, industriousness, life-long learning, autonomy, resilience might be examples of these. It is easy also to dispense with Boyer’s (1990) notion of knowledge integration across disciplines, since placements are typically designed to serve specific disciplines and their learning outcomes; there is a strong link between discipline and professional practice that only breaks down in areas like the arts/humanities.

That leaves time/project management, self-management and global perspectives unaccounted for and for these we note that they are quite specific outcomes (not too generic) and so it may well have been an artifact of the small sample interacting with discipline differences, or the short interview protocol that these have not arisen in the interview data.

**Conclusion**

The pairing of literature-based perspectives on the attributes considered definitional of employability with the views of alumni, provides an important validation step in the preparation of a survey to measure the impact of WIL on employment-readiness. It has drawn out an important meta-dimension for consideration, namely the time-scale on which...
some employability skills develop. Some attitudes and skills may emerge only after several months or even years in the workforce. Thus, though these attributes may be valued by employers and others writing on employability, they may not be appropriate measures to include in a survey of students whose only experience of work is a placement of short duration situated in the context of an undergraduate degree. Other skills may be very discipline-specific, and again, though valued across the board, it may be an unrealistic expectation that all students regardless of discipline would develop these (project management would be an example).

There remain however a few that it would seem reasonable to expect as outcomes that all placement students might be expected to develop (such as self-management) and these may have to be justified on grounds other than triangulation of the literature with alumni awareness.

There is a risk implied by this research that the evolving and growing literature on employability may create expectations of WIL that are unlikely to be fulfilled. Employability in this sense may be a over-blown, or “bloated” construct, placing too much of a burden on the curriculum innovation expected to deliver it. This creates a risk of “under-delivery” by the HE system, to the extent that community hopes or expectations about outcomes form WIL are un-achievable by WIL, for example due to the short time-frame of placement activity. Given the unrelenting pressure on the sector in the recent past to amend curriculum and to find innovative approaches to address various perceived shortcomings in the “products” the system, a risk of under-delivery could entail a significant reputational risk to the sector.
References


