

## **Aligning assessment with the needs of work-integrated learning: the challenges of authentic assessment in a complex context**

Rola Ajjawi,<sup>1</sup> Joanna Tai,<sup>1</sup> Nghia Tran,<sup>1</sup> David Boud,<sup>1</sup> Elizabeth Johnson,<sup>2</sup> Carol-Joy Patrick<sup>3</sup>

<sup>1</sup>*Centre for Research in Assessment and Digital Learning, Deakin University, Geelong, Australia*

<sup>2</sup>*Office of the Deputy Vice-Chancellor Education, Deakin University, Geelong, Australia*

<sup>3</sup>*Service Learning, Griffith University, Springwood, Australia*

### **Abstract**

Work-integrated learning (WIL) is a feature of university courses, both in professional areas, where it is commonplace, but also across many different disciplines. Assessment of WIL can be complex as it involves parties and settings external to the university, and it can be problematic because of difficulties in aligning learning activities during placements with what is or can be assessed by the university. This paper explores the relationship between students' placement experiences and accompanying assessments in contexts where activities are tightly coupled with the curriculum, and in those where it is not. It draws on a qualitative analysis of student interviews and drawings by the interviewees of their WIL experiences, supplemented with analysis of unit guides. Our findings highlight that students' perceptions of authenticity of assessment were undermined by misalignments among the student, university and industry. Assessment authenticity was perceived by students as based on alignment between their current and future selves in the assessment process, involvement of industry supervisors and relevance of placement activities to assessment activities. The paper discusses the complexity of coordination of educational activities with external partners especially when one party drives assessment. It then suggests a reframing of WIL assessment to promote alignment and authenticity.

Keywords: assessment; work-integrated learning; authenticity; alignment

### **Introduction**

Students gaining experience in work or community settings has become an intrinsic feature within and beyond vocationally-oriented courses. Such placements entail learning outcomes and appropriate assessment activities, which are advocated nationally (e.g. the National strategy on work integrated learning in university education (Universities Australia et al., 2015)). Work placements have a variety of discipline or profession-specific names, but collectively they are considered work-integrated learning (WIL): an 'umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum' (Patrick et al., 2008, p. iv). While ensuring that learning experiences are authentic tends to be relatively straightforward within work placements, the role of assessment is problematic. Unlike other course components, students are often in diverse settings, away from the university, with little or no direct university oversight.

Assessment typically has to accommodate a far wider range of activity than takes place in campus-based courses. Designing effective assessment practices remains one of the most challenging issues that universities face when implementing WIL (McNamara, 2013).

WIL placements afford students the opportunity to undertake and practice workplace activities, roles, expectations and responsibilities (Ferns, Smith, & Russell, 2014). Participation in such authentic tasks is a defining dimension in typologies of WIL (Bosco & Ferns, 2014). However, authentic tasks alone are not sufficient to ensure effective learning, assessment practices need also to reflect this. The addition of conventional university assessment methods such as exams and essays could potentially conflict with the more rich and complex learning that often takes place in a WIL setting. Ensuring that assessment is authentic brings forth additional challenges. Conventional assessment tends to return the learner to the student role in which others make judgements about competence, in contrast to the often greater perceived levels of responsibility in a workplace. Furthermore, effective WIL is reliant on good partnerships between university, industry and students (Clarke, Litchfield, & Drinkwater, 2010; Henderson & Trede, 2017). Good WIL assessment design rests on managing the complexity of including a third stakeholder (the work organisation), as well as the normal considerations of assessment design which consider the student and the learning outcomes being pursued.

It is not sufficient for assessment in WIL to meet the needs of the university. When assessment is perceived to be driven by the university and its accreditation requirements, and decoupled from the world of practice, it can lead to cynicism and ‘ticking boxes’ by students and industry supervisors (Elmholdt, Elmholdt, Tanggaard, & Mersh, 2016). Students may interpret the requirements of summative assessment as ‘what I will be assessed on’ or ‘what I need to learn to pass’ (Higgs, 2014). When these requirements are seen to be in conflict with those of the workplace, they can undermine the WIL agenda by driving inappropriate and/or unintended learning. Therefore, perceptions of alignment or indeed misalignment can detract from the authenticity of an assessment task.

While processes to ensure alignment and authenticity from the staff perspective are familiar (Ashford-Rowe, Herrington, & Brown, 2014; Martone & Sireci, 2009); much less is known about students’ perceptions of these. Do students see the assessment activities for placements to be an authentic representation of the qualities of their learning? In other words, is there alignment between what students learn in WIL and the ways in which they are assessed? If we do not understand how students construct alignment during WIL placement assessment, we risk disrupting authentic experiences through distraction and instrumentalism, which can undermine the contribution of WIL assessment to students’ professional expertise and identity development.

This paper presents a qualitative study that explores students’ experiences of WIL placement assessment and how these relate to perceived authenticity of WIL. It examines how students perceive the relationship between their experiences on a placement and how they are assessed, and focuses on differences between the often rich and engaging experiences of placement and the assessments they are obliged to complete.

### ***Constructive alignment in work placements***

Assessment can have an indelible effect on students’ learning behaviours (Heeneman, Oudkerk Pool, Schuwirth, Vleuten, & Driessen, 2015; Zhan & Andrews, 2014); it influences students’ learning outcomes and future employability. Effective assessment design is

underpinned by numerous educational principles. Key amongst these are that assessment activities 1) prompt productive learning; 2) align to the intended learning outcomes and experienced learning activities (Biggs, 2003); and 3) afford students responsibility for assessment and feedback practices (Boud & Associates, 2010). However, assessment design in WIL adds further complexity given that the specifics of the learning cannot be fully known in advance and that other parties are involved.

Typically, the learning outcomes of WIL aim to develop students' professional identities and capability through the integration of different forms of knowledge and reflection on the nature of work (Smith, 2012). WIL helps students to see the relevance of their study, to contextualise learning outcomes, and therefore promotes engagement in learning (Patrick et al., 2008). To enhance alignment between WIL intended learning outcomes, learning activities and assessment, it is commonly held that students should engage in reflection on their personal goals and what the placement affords, as well as the requirements of the unit and course of study (Ferns & Zegwaard, 2014). This is congruent with the original notion of constructive alignment, where students construct meaning through aligned learning activities and learning goals; something the 'learners have to create for themselves' (Biggs, 2003).

Optimally, learners will also construct alignment between learning and assessment activities. Because of the added complexity of the workplace and its different characteristics, WIL assessment necessarily varies in design from conventional university assessment. Ferns and Moore (2012) identified assessment of performance (e.g. global supervisor report, specific observation), written reflective diaries and written tasks as the top three commonly used assessment strategies in units that incorporate a placement component. In a comprehensive review of the literature, Lasen, Evans, Tsey, Campbell, and Kinchin (2018) evaluated the quality of WIL assessment design in higher education using Bosco and Ferns' (2014) Authentic Assessment Framework (AAF). The framework includes four criteria of authentic assessment: 1) student engagement in workplace context/audience; 2) high quality cognitive engagement; 3) student reflexively evaluates performance; and, 4) industry contributes to assessment. Twenty published studies were rated as having high-quality design based on the AAF criteria with 'opportunity for promotion of more robust WIL assessment partnerships' (Lasen et al., 2018, p. 801), but the assessment materials themselves and students' perceptions of these were not assessed. It is clear from these findings that teachers have attempted to incorporate authenticity through assessment of actual practice and learning in the workplace and through the use of reflection to bridge theory and practice. However, this does not in itself ensure student perceptions of alignment or their experience of authenticity.

Indeed, research using statistical modelling highlights that students' perceptions of authenticity are the strongest contributor to the attainment of WIL generic outcomes (Smith & Worsfold, 2015). Authenticity in this respect refers to learning environments that not only reflect real-world physical contexts, but also create 'cognitive authenticity' (Smith & Worsfold, 2015, p. 25). It is therefore, arguable that authenticity by its very nature is in the eye of the beholder and that alignment as constructed by the student, contributes to perceptions of authenticity. These two premises underpin our thinking in this research and also orient the next section of our literature review.

### ***The role of authentic assessment in work placements***

Several authors have written on dimensions of assessment authenticity (see Ashford-Rowe et al., 2014; Gulikers, Bastiaens, & Kirschner, 2004; Villarroel, Bloxham, Bruna, Bruna, & Herrera-Seda, 2018). First, authentic assessment should require students to carry out activities that reflect actual practices of a profession within or in similar to the physical and social contexts of that profession (Bosco & Ferns, 2014; Gulikers et al., 2004; Swan & Hofer, 2013). For performance-based assessment tasks, students are required to produce or demonstrate knowledge and skills in activities close to the profession. In written assessment, it could include case analysis, problem-solving and essay questions, which must act as a proxy of the real world (Villarroel et al., 2018).

Second, authentic assessment should be cognitively challenging (Ashford-Rowe et al., 2014). Authentic assessment should stimulate students to engage in solving actual problems, applying knowledge and making decisions, which is conducive to the development of cognitive and metacognitive skills (Elliott & Higgins, 2005; Villarroel et al., 2018). It should have the power to drive students to ‘establish the relationships between new ideas and previous knowledge, linking theoretical concepts with everyday experience, deriving conclusions from the analysis of data, allowing them to examine both the logic of the arguments present in the theory, as well as its practical scope’ (Villarroel et al., 2018, p. 485).

Third, authentic assessment should encourage student reflexivity. Reflexivity requires a student to position themselves in relation to their practices and developing sense of self. During authentic assessment tasks, students oscillate between the role of student and future practitioner as they straddle both the academy and the world of work (Field, Duffy, & Huggins, 2013; Lingard, Schryer, Garwood, & Spafford, 2003). Given these opportunities, students can begin to test their own fit with the workplace, understand what it means to be successful in the practices of the chosen workplace community and take steps to achieving that (Hodges, Eames, & Coll, 2014).

Fourth, authentic assessment should promote students’ capabilities to judge the quality of their work. Assessment activities should encourage students to engage with criteria and standards about what a good performance means, judge their own performance and thereby regulate their learning (Tai, Ajjawi, Boud, Dawson, & Panadero, 2018; Villarroel et al., 2018). Evaluative judgement is important for learning because it helps students to identify areas that need improvement, track their progress over time, and develop insights into acceptable standards of quality performance in their future profession (Boud & Falchikov, 2006; Boud & Soler, 2016; Sadler, 2005). Formative assessment practices are key to the growth of evaluative judgement ability. Students need to be exposed to a variety of tasks and requirements and have plenty of opportunities to seek and engage in feedback about their workplace performance.

Collectively, these four dimensions point towards a need for students to align aspects of themselves, the university and the placement in order to construct assessment activities as authentic. Students are the ones who make sense of their experiences, determining what is valuable to pay attention to and how much effort they exert (Billett, 2015). They construct knowledge ‘on the basis of being more or less informed about what is important and what is less important in what they are experiencing’ (Billett, 2015, p. 150). Therefore, the experienced practice curriculum becomes central to what is learned as students shape and direct their learning.

### ***Research questions and research approach***

Work placements afford but do not ensure authentic learning experiences. Designing authentic assessment is challenging as it demands alignment between the workplace, course requirements and the student. If the assessment is not aligned or if students do not perceive it to be so, the experience of authentic assessment may be disrupted, leading to student confusion, distraction or instrumentalism. Although alignment in assessment design has been researched from the teachers' perspective, less is understood about students' experiences of alignment during WIL placement assessment experiences and how these contribute to authentic learning from assessment. Based on students' experiences of their WIL placement, this study aimed to explore students' perceived authenticity and alignment of assessment. The overarching research question was:

*How do students perceive alignment between their WIL placement, their own expectations and how they are assessed?*

### **Methods**

A qualitative research approach was adopted since the study explored students' experiences and constructions during WIL, that is, it sought to understand participants' social meanings in relation to the placement. Research ethics approval was obtained from the participating universities.

### ***Participants***

Participants included 14 female students, ages 20 to 43, from two Australian universities. The students were from different disciplinary backgrounds: Health, Education, Psychology, and Law. All had completed a work placement no more than three months prior to the interview. Half undertook the placement as a tightly-coupled placement within their program and the other half as a loosely-coupled placement. Tightly-coupled placements are defined in this study as one that is compulsory within a program, is professionally accredited and regulated by external bodies. Loosely-coupled placements include elective units, and/or non-accredited placements. We chose these categories as a way of enabling comparison among students from a variety of degrees, and because these distinctions relate directly to alignment and authenticity. Theoretical sampling from tightly and loosely-coupled placements allowed us to meaningfully navigate the numerous permutations of difference across students, disciplines and placement types.

Although the study collected data from different sources, and involved participants from four disciplines and two universities, the sample size was small and exclusively female. This was a quirk of recruitment with those who chose to volunteer. This is a limitation of the study and its outcomes can only be regarded as opening up an area of inquiry.

### ***Data collection***

We collected data through semi-structured interviews which also used drawings. Following informed consent, participants were asked to draw a picture of the things they learned in their placement. These drawings were meant to show students' ideas, feelings, attitudes, or experiences rather than demonstrate artistic merit. Participants were provided approximately five minutes to complete this aspect of their drawing. They were given another five minutes to draw the aspects that were captured by assessment. In this way, the drawings were intended to reveal the expression of 'hidden' personal, social, and organisational context (Brown & Wang, 2013; Cristancho, 2015). It also allowed participants time to reflect before articulating their responses verbally in the interview (Pitt, 2017). The drawings were used as

a tool to facilitate dialogues, and to expand on key ideas. They were completed on A4 paper and digitised for analysis.

When the drawings were complete, participants were brought into a discussion about their drawings and work placement experiences. They were asked to clarify ideas they expressed through the drawings. Then the interview continued to explore what they learned during the work placement and what was captured through assessment, including their experiences of authenticity and alignment. We also collected the unit guides (subject information for students) for each participant's placement. These unit guides served as another source of data to understand the purpose of the placement, and the intended activities students were expected to complete and be assessed on.

### ***Data analysis***

We analysed the interview transcripts using Thematic Framework analysis (Ritchie & Spencer, 2002). This analysis approach involved a systematic process of familiarisation, coding, charting and sorting material according to key issues and themes. The researchers familiarised themselves with the data collected by initially reading two interview transcripts as well as the respective drawings and unit guides before meeting to develop an initial coding framework. The team met severally during the coding process to further refine the coding framework and develop themes progressively reading and discussing more of the data. To preserve the integrity of the data and facilitate intra- and inter-participant interpretation, each participant's data (transcript, unit guide and drawing) was analysed in whole by two team members then discussed among the team. Although the drawings and unit guides contributed to an overall understanding of each student's experience and prompted the direction of interviews, interview transcripts formed the primary data source for analysis across participants.

### **Findings**

#### ***Description of assessment tasks***

All unit guides articulated the main objectives of the placement, followed by concrete knowledge, skills and attributes that students were expected to develop and included rubrics of quality criteria for the assessment tasks. They also included specific assessment instructions, due dates and weighting of assessment tasks. Assessments numbered 3-5 tasks per placement. For their first assessment task, students were commonly required to develop a learning plan for the placement with articulation of goals. During the placement, they were required to engage with professional activities under the supervision of an industry supervisor. The involvement of the industry supervisor in assessing the student, providing feedback information, instruction and guidance varied. Examples of placement activities included developing a resumé, participating in a mock interview, teaching children, examining patients' health issues, and consulting with customers. Students were asked to keep journals reflecting on what they did during the placement which were in some (but not all) instances graded. The final assessment was typically a written report that analysed how they achieved the goals they stated at the beginning of the placement.

We identified three key misalignments that led to inauthenticity in the assessment: 1) between assessment activities and future selves; 2) between placement activities and assessment activities; and, 3) between the university and industry roles and practices. Perceptions varied according to multiple dimensions and various factors within each student's placement experience contributing to the overall perception, which usually had a combination of alignment and misalignment. Collectively, these misalignments are

symptomatic of the lack of coordination between university and industry leading to inauthentic representation of learning.

### ***Misalignment between assessment activities and future selves***

Students oriented to the value of assessment in relation to their (imagined) future professional identities, yet commonly, assessment positioned them within a current student identity. Students in both tight and loosely-coupled placements could for the most part construct placement activities as related to their future selves (even loosely as a 'worker'/professional identity). However, it was more difficult to construct such alignment with the assessment tasks, in particular for students undertaking a loosely-coupled placement.

The assessment activities were typically successful in bringing students' perceptions of their own goals for the placement into alignment with the university graduate attributes (and the professional standards for tightly-coupled placements). This was often done through an early assessment task that asked students to formulate their placement goals based on professional standards and with reference to the university's placement goals. Hence, students were given an opportunity to exercise agency in their articulation of personal learning goals at the start of a placement within certain limits – constructing alignment through engaging with the assessment task between their own learning goals, the university's and what is afforded by the placement.

[The assessment] was about setting my goals for placement. Just before I go for placement, I have to set myself two goals to achieve during placement, so based on that I'm actually evaluating myself if I have achieved that goal (P06 - Education)

The goals recorded in their learning plan were mostly revisited in the final written report. Unsurprisingly, if personal goals were not revisited in the final assessment task, writing them was seen as tokenistic. Some students even used their stated/personal goals to prompt their supervisor regarding activities they wanted to achieve. This created an opportunity for students to revise and revisit the learning plan during the placement, which might have been intended by the university, but was not necessarily experienced by many. Hence, collaboration with the industry supervisor to adapt goals and expectations to the affordances of the placement was a feature of a more dynamic form of alignment for students.

You have to write up your like learning plan before you go. So, I set up all of those goals initially, and then throughout the placement, then I would check in with my supervisor and I'd say, "Look, we still haven't done this." Or, "I wanna do this." Or, "How could I do that?" So that worked really well. (P13 - Health)

For students in tightly-coupled placements, there were more opportunities for performance-based assessment, with feedback from their industry mentor. Students identified this form of assessment as highly authentic as they aligned the forms of work assessed closely to their future professional selves beyond the degree.

I felt like they were just really more industry-based assessments, so they were really relevant, and it's actually stuff that we can go out and use ongoing, beyond our degree. The resume, even the journal document stuff, working with clients, they're actual ... industry-related skills. (P01 - Health)

Where reflective journals were used, mostly in health and education placements, participants varied in their levels of engagement and construction of authenticity. Some reported that on-going reflection helped extend their development of professional knowledge, skills and attributes that were gained throughout the placement. This type of assessment was perceived to be authentic as it pointed students to what they had performed well or

underperformed compared to future work standards and engaged students in making judgements, for example in the next quote, 'as an educator'.

Also, at the end of the day I have to do a journal reflection, so based on the journal reflection I'm able to see, as an educator, what's my strength and what are the areas that I have to improve on. (P06 - Education)

Final written assessments were often critiqued for lack of perceived authenticity by those who took both tightly and loosely-coupled placements because the written nature of the task did not align with their performative self and thus with their professional identity. Students' experience with the final written assessment will be further elaborated below.

### ***Misalignment between placement activities and assessment activities***

Students undertaking tightly-coupled placements perceived that performance-based assessment tasks resembled 'real-life' occupational practice. These allowed participants to integrate knowledge and skills learned at university with workplace learning. However, there were more written than performance-based assessment tasks across our sample. Students taking part in loosely-coupled placements constructed less authentic assessment experiences in their placement compared to those undertaking a tightly-coupled placement.

Students often referred to learning communication skills, problem solving and collaboration with others in the workplace, yet expressed frustration at the nature of the assessment tasks being individualistic and focused on a narrow genre of report writing or reflective writing which did not enable them to represent what they had achieved. Drawings reflected this where placement learning activities showed many people, often smiling, communicating and interacting; whereas assessment was represented as the student, alone sitting facing a computer. Assessment was seen as outside the physical and social context of the placement (as per Gulikers et al., 2004). The majority of participants perceived that written assessments could not adequately capture their professional skills such as teaching or working with clients, which they felt should be assessed through direct observation. They critiqued the assessment criteria and rubrics as being static and insufficiently agile to take into account quality of enactments of specific professional activities.

The rubric for my assignment is very much focused on our understanding of the structure of a lesson plan and what needs to be in a lesson plan to teach an effective lesson rather than how we actually personally taught it and how we found the lesson plan either stayed the same or changed during the lesson. (P09 -Education)

The misalignment between students' range of experiences and the narrowly defined assessment tasks detracted from their workplace learning, leading them to an instrumental and inauthentic approach to assessment. Students described completing written assessment tasks as box-ticking activities because they did not reflect practice. This student comments on how she integrated her classroom learning on social models of health to workplace activities but this was not reflected in the assessment task:

My major is health promotion but I was placed in the disability sector, so I had to relate [standards framework] and [placement provider] to the social model of health. So that was kind of like taking a health promotion perspective ... That was good, but I only just mentioned it in the reflective journal and they're like, "Okay, yeah. Tick, that's fine." It wasn't a whole lot of learning towards my major. (P02 – Health elective)

Where expectations and workplace roles/activities changed during the placement, students were able to accommodate these changes in their learning and reported still finding the learning experiences valuable. But the assessment requirements remained static leading to



misalignment. Students in both groups expressed frustration at this seeming lack of authenticity and alignment.

There was nothing in my report where I had to say this is how you analyse a patient legislation or this is how you go to court or stuff like that ... I hated the assessment. I thought it was pointless ... it really had nothing to do with enhancing my knowledge. (P10 – Law)

### ***Misalignment between the university and industry roles and practices***

Generally, students reported that the placement helped them understand the work culture, apply and further develop professional knowledge, skills and attributes as well as expand their networks with others. However, some students suggested that there was a mismatch between what they were taught at the university and how it was practised at the workplace, causing some difficulty in completing the assigned workplace tasks. This contextualisation/adaptation afforded students opportunities to adapt to industry practices, therefore constructing new professional knowledge and skills but led them to question the authenticity of what was learned in the classroom. None openly discussed the differences between knowledge application in the classroom and in the workplace in their assessed work. Therefore, although students learned important skills in the workplace, these were not captured in assessments prescribed by the university. Importantly, valuable learning regarding local enactments and variability of practice were not capitalised on. Worse, this misalignment led to instrumental approaches to assessment as students dismissed what was being learned at university as not being relevant ‘in real life’. These strike us as missed opportunities for helping students understand the dynamic and situated nature of knowledge and the need to adapt to local contexts.

The way we're taught to document here at Uni, and then you go out into the work place, it's like, not necessarily the same at all. So that's frustrating when you're getting assessed at Uni and you've gotta tick these boxes, but it's like, that's not even the way they do it in real life. (P13 - Health)

Assessment design and grading mostly resided in the domain of the university, yet students directly stated that they preferred to be assessed in the workplace by continuous observation of how they made progress throughout the placement rather than on paper. They believed that the role of the industry supervisor in assessing participants' WIL outcomes should be more prominent instead of relying on the academic. Even when an industry advisor's report was required, it did not meaningfully contribute to the final grade. Therefore, students found that this reduced the perceived validity of the assessment. The quote below also highlights students' perceived lack of control over assessment.

The university's assessment is quite specific in the written element, so we don't have control over how we're assessed I suppose. I would have liked to have somebody [to] observe how I acted in the classroom, as opposed to how I have described in text how I acted. [My mentor] wrote a report but it does not contribute to my scoring of the unit, which is really disappointing because you work really hard to pass the report but it's a hurdle requirement so the actual report doesn't contribute to your grade. (P08 – Education)

### **Discussion and implications**

Contrary to the widely-held notion that alignment is an unproblematic feature of curriculum design where objectives, activities and assessment can be arranged into harmony by educators, this study highlights that alignment is multi-layered, dynamic, complex and is constructed by students. Designing alignment in the placement is only a starting point, assessment activities need to prompt student constructions of alignment as the placement unfolds and the boundaries of the social practice becomes clearer. Three key misalignments

were identified that led to inauthentic experiences of assessment. These were: misalignment between assessment activities creating dissonance between current and future selves, misalignment between work placement activities and assessment activities, and misalignment between the university and workplace roles. Common to these three misalignments is a lack of shared endeavour and coordination among the key stakeholders – student, university, and industry.

Students were strongly oriented towards the need for assessment to be relevant to their current and future working selves. This helped to establish authenticity from the students' perspectives. In 2014, Vu and Dall'Alba (2014) called for authentic assessment to be conceptualised as having an ontological dimension to overcome narrow perspectives of authenticity as emulating 'real-life' or having 'real-life' value. To be authentic, assessment needs to 'engage the whole person: what they know, how they act and who they are' (Dall'Alba & Barnacle, 2007, p. 689). Students must take responsibility for *who* they are becoming through engaging critically (and purposefully) with the experiences afforded through WIL, instead of merely replicating practices without thinking. Assessments that prompted students to incorporate aspects of their current and future selves either through learning plans, performance or reflection were seen as more authentic by our participants. These activities created space for negotiation of meaning among stakeholders, however assessment did not enable space for dynamic renegotiation of meaning as knowledge shifted and emerged in the workplace. If a placement did not proceed as expected, students could adjust their expectations with regards to the learning but there were few opportunities for the assessment instructions and existing artefacts to be adjusted to the changed demands of the placement.

Written reflection was another assessment activity used to promote alignment among the student, university and workplace. However, students can be strongly resistant to written reflective assessment which seeks to represent a complex and holistic activity that is 'infused with emotion' with a unidimensional, cognitive activity (Dean, Sykes, Agostinho, & Clements, 2012, p. 111). Others have found that students tend to construct their reflections in order to please their assessors (Maloney, Tai, Lo, Molloy, & Ilic, 2013), further highlighting an instrumental approach to assessment as one more hurdle to jump, echoing our findings. Dohn (2011) argues that the suppositions underlying the use of reflection in educational activities are misguided because the relation between thinking and communication on one hand, and acting on the other is far from simple and linear. It is jointly a problem of representation of tacit practices 'out of context' and one where knowing does not equal acting (Tummons, 2019). Interestingly, our students were well aware that reflecting on practice did not portray their ability to actually 'do' the practice and therefore were critical of the narrow focus of assessment on written academic reports. Industry supervisors seem equally critical of students' focus on producing academic reports (Jackson, Rowbottom, Ferns, & McLaren, 2017). This is where co-constructed performance-based assessment could be utilised.

Industry supervisors acknowledge the challenges inherent in assessment and feedback so request further guidance (Jackson et al., 2017). Meanwhile, universities have diminished the role of industry supervisors with regards to assessment and feedback due to genuine concerns with leniency bias (Jackson, 2018), consequently potentially compromising on credibility and authenticity. All assessment design requires compromise between contextualisation and standardisation (Bates, Schrewe, Ellaway, Teunissen, & Watling, 2019). The educational impact and validity of the assessment might not be worth sacrificing in the pursuit of reliability. As seen in our current findings, if the student and supervisor (as

per Elmholt et al., 2016), are not invested in the assessment practices as relevant to the workplace, these may become another bureaucratic exercise that distracts.

### ***Promoting coordination among stakeholders***

How might we design assessment that can better coordinate between students, university and industry, especially with scarce joint communication? As a starting point, staff could seek better alignment and design assessment so that students can actively construct alignment. This is not a new notion. Billett (2015, p. 156) called for greater ‘consistency in understanding of the goals, processes and responsibilities across all of the parties involved in providing students’ experiences in practice settings’. He argued that ‘when there is common understanding amongst workplace practitioners and supervisors, teachers in higher education and students ... the prospects of decision-making in organizing learning experiences, how they are enacted and experienced are most likely to be consonant.’ However, when assessment criteria are unilaterally set by the university they are incompatible with more dynamic ways by which practices emerge (Rust, O’Donovan, & Price, 2005). Henderson and Trede (2017, p. 76) proposed a Collaborative Governance framework that assists in the ‘development of a common language and understanding, mutual respect and trust across the university, industry and student to assure attainment of learning outcomes’. We concur with the need for common language and understanding and offer a reframing from a social participation perspective.

Using Communities of Practice theory (Wenger, 1998) we can conceptualise the university and work setting placement as two ‘communities’ with overlapping practices where connections can be made through *boundary objects* and *brokering*. A boundary object, is an artefact (or other form of reification) that can connect people across communities. Brokers coordinate activity and meaning across the two communities. Through this lens, reifications of assessment (tasks, guides, rubrics) can act as boundary objects which can connect individuals across communities. Therefore, the assessment design needs to contain aspects of the practices of industry (and not just university) which can be made sense of or used by both sets of members, and moreover, allow for some emergent elements. Students, acting as brokers, are then able to coordinate activity and meaning across the two communities, while constructing their professional identities for the communities they wish to join. This contrasts to present situations where the development of assessment materials and requirements are embedded in the practices of university without sufficient nods to industry practice or participation of industry, and such brokering work cannot occur within assessment design that is static and wholly university oriented.

Co-development of assessment activities is one approach that could be used to promote a more mutual practice with regular communication throughout the placement among key stakeholders. Involving industry partners and students in periodic review of intended learning outcomes, the authenticity of assessment tasks and moderation of student work would be another strategy. Assessment design (as boundary object) needs to create a meaningful link to a site of authentic practice, thus enabling students to dynamically contextualise and embody knowing with opportunities for gaps (i.e. misalignments) to be laid bare and discussed. Therefore, assessment activities may include regular reflection on and understanding of the alignments and misalignments between university practices and the necessary ‘situated’ enactments in the workplace, achieving an additional purpose of providing feedback to the teaching team. Reflection may occur through three-way discussion, audio-diaries or blog posts. When situated enactments are compared to those at university connections can be made between the communities. Students may then be supported to better

understand their role in brokering between the workplace and university through improved assessment literacy. These strategies cannot simply be added to existing assessment offerings, instead serious thought needs to be given with staff, student and industry workload being apportioned to practice pedagogies that make a difference to student learning. Future research and development of assessment design needs to better align university, industry and student needs, and offer scaffolding for students to broker between university and industry practices.

**Acknowledgement:** We wish to thank the students who took part in the study and the staff who enabled recruitment. We would also like to thank ACEN for funding the project.

Funding: Australian Collaborative Education Network (ACEN) Research Grant 2017 \$10,000

## References

- Ashford-Rowe, K., Herrington, J., & Brown, C. (2014). Establishing the critical elements that determine authentic assessment. *Assessment & Evaluation in Higher Education*, 39(2), 205-222.
- Bates, J., Schrewe, B., Ellaway, R. H., Teunissen, P. W., & Watling, C. (2019). Embracing standardisation and contextualisation in medical education. *Medical Education*, 53(1), 15-24. doi:10.1111/medu.13740
- Biggs, J. B. (2003). *Teaching for quality learning at university : what the student does* (2 Ed.). Buckingham ; Philadelphia, PA: Society for Research into Higher Education : Open University Press.
- Billett, S. (2015). Key Findings About Integrating Experiences. In *Integrating Practice-based Experiences into Higher Education* (pp. 135-160). Dordrecht: Springer Netherlands.
- Bosco, A. M., & Ferns, S. (2014). Embedding of Authentic Assessment in Work-Integrated Learning Curriculum. *Asia-Pacific Journal of Cooperative Education*, 15(4), 281-290.
- Boud, D., & Associates. (2010). Assessment 2020: Seven propositions for assessment reform in higher education. In: Sydney: Australian Learning and Teaching Council.
- Boud, D., & Falchikov, N. (2006). Aligning assessment with long-term learning. *Assessment & Evaluation in Higher Education*, 31(4), 399-413.
- Boud, D., & Soler, R. (2016). Sustainable assessment revisited. *Assessment & Evaluation in Higher Education*, 41(3), 400-413.
- Brown, G. T., & Wang, Z. (2013). Illustrating assessment: How Hong Kong university students conceive of the purposes of assessment. *Studies in Higher Education*, 38(7), 1037-1057.
- Clarke, D., Litchfield, C., & Drinkwater, E. (2010). Supporting Exercise Science students to respond to the challenges of an authentic work-integrated learning (WIL) assessment. *Asia Pacific Journal of Cooperative Education*, 12(3), 153-167.
- Cristancho, S. (2015). Eye opener: exploring complexity using rich pictures. *Perspectives on Medical Education*, 4(3), 138-141. doi:10.1007/s40037-015-0187-7
- Dall'Alba, G., & Barnacle, R. (2007). An ontological turn for higher education. *Studies in Higher Education*, 32(6), 679-691. doi:10.1080/03075070701685130
- Dean, B. A., Sykes, C., Agostinho, S., & Clements, M. (2012). Reflective assessment in work-integrated learning: to structure or not to structure, that was our question. *Asia Pacific Journal of Cooperative Education*, 13(2), 103-113.
- Dohn, N. B. (2011). On the epistemological presuppositions of reflective activities. *Educational Theory*, 61(6), 671-708. doi:10.1111/j.1741-5446.2011.00428.x
- Elliott, N., & Higgins, A. (2005). Self and peer assessment—does it make a difference to student group work? *Nurse Education in Practice*, 5(1), 40-48.
- Elmholdt, K., Elmholdt, C., Tanggaard, L., & Mersh, L. H. (2016). Learning good leadership: a matter of assessment? *Human Resource Development International*, 19(5), 406-428. doi:10.1080/13678868.2016.1206362

- Ferns, S., & Moore, K. (2012). Assessing student outcomes in fieldwork placements: An overview of current practice. *Asia-Pacific Journal of Cooperative Education*, 13(4), 207-224.
- Ferns, S., Smith, C., & Russell, L. (2014). *The impact of work integrated learning on student work-readiness*. Retrieved from <http://acen.edu.au/wil-impact/wp-content/uploads/2016/07/Impact-of-WIL-Student-Work-Readiness.pdf>
- Ferns, S., & Zegwaard, K. E. (2014). Critical assessment issues in work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 15(3), 179-188.
- Field, R. M., Duffy, J., & Huggins, A. (2013). Supporting transition to law school and student well-being: The role of professional legal identity. *The International Journal of the First Year in Higher Education*, 4(2), 15-25.
- Gulikers, J. T., Bastiaens, T. J., & Kirschner, P. A. (2004). A five-dimensional framework for authentic assessment. *Educational Technology Research and Development*, 52(3), 67-86.
- Heeneman, S., Oudkerk Pool, A., Schuwirth, L. W., Vleuten, C. P., & Driessen, E. W. (2015). The impact of programmatic assessment on student learning: theory versus practice. *Medical Education*, 49(5), 487-498.
- Henderson, A., & Trede, F. (2017). Strengthening Attainment of Student Learning Outcomes during Work-Integrated Learning: A Collaborative Governance Framework across Academia, Industry and Students. *Asia-Pacific Journal of Cooperative Education*, 18(1), 73-80.
- Higgs, J. (2014). Assessing the Immeasurables of Practice. *Asia-Pacific Journal of Cooperative Education*, 15(3), 253-267.
- Hodges, D., Eames, C., & Coll, R. K. (2014). Theoretical Perspectives on Assessment in Cooperative Education Placements. *Asia-Pacific Journal of Cooperative Education*, 15(3), 189-207.
- Jackson, D. (2018). Challenges and strategies for assessing student workplace performance during work-integrated learning. *Assessment & Evaluation in Higher Education*, 43(4), 555-570. doi: 10.1080/02602938.2017.1378618
- Jackson, D., Rowbottom, D., Ferns, F., & McLaren, D. (2017) Employer understanding of Work-Integrated Learning and the challenges of engaging in work placement opportunities. *Studies in Continuing Education*, 39(1): 35-51. doi: 10.1080/0158037X.2016.1228624
- Lasen, M., Evans, S., Tsey, K., Campbell, C., & Kinchin, I. (2018). Quality of WIL assessment design in higher education: a systematic literature review. *Higher Education Research & Development*, 37(4), 788-804. doi:10.1080/07294360.2018.1450359
- Lingard, L., Schryer, C., Garwood, K., & Spafford, M. (2003). 'Talking the talk': school and workplace genre tension in clerkship case presentations. *Medical Education*, 37(7), 612-620.
- Maloney, S., Tai, J., Lo, K., Molloy, E., & Ilic, D. (2013). Honesty in critically reflective essays: An analysis of student practice. *Advances in Health Sciences Education*, 18(4), 617-626. doi:<https://doi.org/10.1007/s10459-012-9399-3>
- Martone, A., & Sireci, S. G. (2009). Evaluating Alignment Between Curriculum, Assessment, and Instruction. *Review of Educational Research*, 79(4), 1332-1361. doi:10.3102/0034654309341375
- McNamara, J. (2013). The challenge of assessing professional competence in work integrated learning. *Assessment & Evaluation in Higher Education*, 38(2), 183-197.
- Patrick, C.-j., Peach, D., Pocknee, C., Webb, F., Fletcher, M., & Pretto, G. (2008). *The WIL (Work Integrated Learning) report: A national scoping study*. Brisbane, Queensland: Queensland University of Technology.
- Pitt, E. (2017). Drawing: A visual method as an expressive data collection technique. In S. Watt & C. Wakefield (Eds.), *Teaching Visual Methods in the Social Sciences*. London and New York: Routledge.
- Ritchie, J., & Spencer, L. (2002). Qualitative data analysis for applied policy research. In A. Brayman & R. G. Burgess (Eds.), *Analyzing qualitative data* (pp. 187-208). London: Routledge.
- Rust, C., O'Donovan, B., & Price, M. (2005). A social constructivist assessment process model: how the research literature shows us this could be best practice. *Assessment & Evaluation in Higher Education*, 30(3), 231-240. doi:10.1080/02602930500063819

- Sadler, D. R. (2005). Interpretations of criteria-based assessment and grading in higher education. *Assessment & Evaluation in Higher Education*, 30(2), 175-194.
- Smith, C. (2012). Evaluating the quality of work-integrated learning curricula: a comprehensive framework. *Higher Education Research & Development*, 31(2), 247-262.  
doi:10.1080/07294360.2011.558072
- Smith, C., & Worsfold, K. (2015). Unpacking the learning–work nexus: ‘priming’ as lever for high-quality learning outcomes in work-integrated learning curricula. *Studies in Higher Education*, 40(1), 22-42. doi:10.1080/03075079.2013.806456
- Swan, K., & Hofer, M. (2013). Examining student-created documentaries as a mechanism for engaging students in authentic intellectual work. *Theory & Research in Social Education*, 41(1), 133-175.
- Tai, J., Ajjawi, R., Boud, D., Dawson, P., & Panadero, E. (2018). Developing evaluative judgement: enabling students to make decisions about the quality of work. *Higher Education*, 76(3), 467-481.  
doi:10.1007/s10734-017-0220-3
- Tummons, J. (2019). Education as a mode of existence: A Latourian inquiry into assessment validity in higher education. *Educational Philosophy and Theory*, 1-10.
- Villarroel, V., Bloxham, S., Bruna, D., Bruna, C., & Herrera-Seda, C. (2018). Authentic assessment: creating a blueprint for course design. *Assessment & Evaluation in Higher Education*, 43(5), 840-854.
- Universities Australia, BCA, ACCI, AIG & ACEN (2015). *National strategy on Work Integrated Learning in university education*. Retrieved from  
<http://cdn1.acen.edu.au/wpcontent/uploads/2015/03/National-WIL-Strategy-in-university-education-032015.pdf>
- Vu, T. T., & Dall’Alba, G. (2014). Authentic assessment for student learning: an ontological conceptualisation. *Educational Philosophy and Theory*, 46(7), 778-791.
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.
- Zhan, Y., & Andrews, S. (2014). Washback effects from a high-stakes examination on out-of-class English learning: Insights from possible self theories. *Assessment in Education: Principles, Policy & Practice*, 21(1), 71-89.