Portfolios as a platform for evidencing employability and building professional identity: A literature review

STACEY CARTER
Curtin University, Perth, Australia

This paper reviews the theoretical background and contextualized application of ePortfolios in tertiary education. Higher education graduates are expected to provide evidence demonstrating a complex skill set as they transition to employment, and ePortfolios are a potential tool with which to do this. This literature review explores current understanding and contemporary practices for how ePortfolios can be curated to demonstrate student competency in the desired skills. It also considers how to choose between ePortfolio platforms and how ePortfolio outputs are designed and structured to align student learning outcomes and associated evidence of student ability with student professional identity, using Australian nursing/midwifery and engineering discipline case studies to identify relevant industry-based skills as examples. While the typology of ePortfolios is consistently recognized, the implementation in teaching varies across contexts. When integrating ePortfolios into the curriculum, many elements must be addressed, including assessment strategies, pedagogical approaches, integration of professional identity, and resourcing.

Keywords: ePortfolios, employability, work-integrated learning, professional identity, authentic assessment

Work-integrated learning (WIL) is an umbrella term, describing the intentional practice of integrating traditional academic learning with applied learning for and in the workplace, with the intention of the student making connections between and deriving greater meaning from both contexts (Cooper et al, 2010; Cote & Emmett, 2015; Gülbahar & Tinmaz, 2006; McRae & Johnston, 2016). The connection between this idea and the underlying principles of constructivist education principles are both obvious and widely documented. Piaget’s individual constructivism suggests that learners ‘make sense’ of new information via the interaction of ideas and experiences, and Vygotsky’s social constructivism proposes that learners create meaning in the space between what they already understand, and what they ‘know and understand with the help of others’ (Howell, 2014). Both of these concepts are highlighted by Cooper, et al (2010) as vital elements of WIL. However, identifying and describing the competencies and skills achieved within WIL, in particular soft skills or transferrable skills, can be difficult to quantify and assess (Ferns & Comfort, 2014; Schomburg, 2006; Yorke, 2006). Yorke (2006) described these skills as higher-order skills that have been learned in one context, but can be readily adapted to apply to different conditions, such as communication and team-work skills. The tension that exists between practicing these generic skills and evidencing them to improve employability is a gap that can be supported by integrating electronic portfolios, or ePortfolios into the curriculum (Ferns & Comfort, 2014). The multi-faceted role that ePortfolios can hold in a tertiary environment, including evidencing student personal and professional development, addressing broad theory-to-practice experiences, and supporting reflective practices indicates that they are well placed to improve tertiary assessment of and for employability, and development of authentic knowledge and skills.

It is argued by Orrell (2011), among others, that higher education providers are disinclined to move to innovative assessment strategies, such as interviews, blogs and ePortfolios as summative assessments, due to concerns of objectivity and reliability compared to traditional assessments. The issues in authentic WIL assessment are not only knowing how to assess, but what to assess, and who should assess, that is, how stakeholders can effectively guide and report on student accomplishments (Cooper

1 Corresponding author: Stacey Carter, Stacey.Carter@curtin.edu.au
et al., 2010; Gülbahar & Tinmaz, 2006). Valencia-Forrester et al. (2019) reasons that, as learning in WIL is contextualized across a variety of situations, best practice assessment should value both student and employer feedback against the stated criteria. Fair and authentic assessment should be “transparent to all those involved… it takes into account all of the previous assessment criteria as performance indicators; and demonstrates the extent to which each of these criteria have been met” (Smith et al., 2009, p. 48). An ePortfolio allows students to evidence capabilities and growth mapped over a learning journey, taking them from an episodic to longitudinal view of their qualification (Baston, 2010). It is a useful tool as a platform for combining the how, the what and the who in assessment.

The link between tertiary studies and employment is generally established, as is the understanding that professions value a complex skill set. Structuring relevant and industry-applicable learning opportunities and assessing these employability skills in an authentic and meaningful way requires a multidimensional, innovative approach. There is potential for using ePortfolios as a reflection tool, demonstration of capabilities and artefact repository in order to meet these outcomes, and create a worthwhile learning experience (Hatzipanagos & Lygo-Baker, 2012). Higher education helps shape students for future employment, and students should be provided with opportunities to participate in developing their current and future professional identity, however this is rarely explicit in many common learning and assessment practices (Daniels & Brooker, 2014, Trede, 2012). Current literature exploring the potential role of ePortfolios in higher education, as tools for authentic summative assessment, formative learning experiences, and rehearsal of demonstration of life-long learning and professional identity are examined in this paper, with specific examples of how these themes have been applied in a small collection of discipline-specific case studies as examples.

METHOD

A systematic search of the literature was undertaken to identify and synthesize current understandings of theoretical underpinnings for ePortfolios, considerations for use of different ePortfolio platforms, authentic assessment, professional identity and employability. Keywords, including ePortfolio, assessment, employability, WIL and personal and professional identity were used to find existing literature surrounding ePortfolios and evidencing capabilities for employability. Literature addressing considerations when choosing an ePortfolio platform, current understanding of whether student professional identity and employability are being measured, and case studies describing ePortfolio integration in tertiary science disciplines, including identification of assessment tasks and artefacts to demonstrate student competency in the specified skills were also identified.

Initially, Boolean searches of key words and phrases relating to the identified topics were used to define the qualitative concepts, stemming from both qualitative and quantitative studies on a macro level. This was undertaken using several databases, including ERIC (ProQuest), Scopus and Web of Science. The top dozen results were evaluated for relevance, based on their titles, abstracts and key words. Articles addressing current state of ePortfolio use that were greater than a decade old were deselected. Some of the references contained in these were included, based on a variety of factors. Current literature was prioritized in these searches, as was the investigation of the topics from a tertiary education perspective, though these criteria were not exclusionary. In addition, discipline-specific case studies were sought to be included, to discover whether their applications were similar, and whether their findings could be applied to other disciplines. The searched literature was refined to include Australian tertiary contexts with multiple case studies, which led to the selection of nursing/midwifery and engineering disciplines as case studies. Recent publications from relevant professional organizations were also skimmed for applicability to the topics, and articles cited in the literature were...
also sourced for potential inclusion. As a result over 25 key readings were analyzed in detail, in order to effectively synthesize the themes explored here.

**DISCUSSION**

*Current Literature Addressing the Conceptual Underpinnings of ePortfolios*

EPortfolios are becoming increasingly popular as a digital collection of artefacts collating the student experience (Ferns & Comfort, 2014). The following is an overarching definition:

> Digital portfolios are dynamic collections of digital artefacts including work samples, learning resources, records of skills and accomplishments, which may be created by an individual, a group, a community or an organization. Digital portfolios can have multiple purposes, such as demonstrating learning achievements (assessment), recording a learning process (journaling) and demonstrating skills (profiling)... Digital portfolios can serve multiple purposes such as support, documentation and assessment of learning, counselling and career preparation, credential documentation and accreditation. (Buchem, 2016, p. 343-344)

While many types of evidence can be used in the student ePortfolio collection, the most familiar are common to traditional portfolio types, including samples of writing, such as research, observations and reflections; images and videos; and feedback from supervisors, mentors and/or peers (Butler et al, 2006). Artefacts can relate to student demonstration of skills and competencies, assessment, learning journey transformation and reflection, personal and professional identity, learning engagement and employability (Watty & McKay, 2015). This evidence is gathered for a specific purpose within those contexts described above, collating evidence of desired skills and attributes within the framework of the individual learning activity. However, within the broad support of ePortfolio implementation, acknowledgement is often made of the additional benefits that can be seen, such as enhancing technological, communication and organizational skills; student awareness of their learning journey and how their understanding has changed over time; identification of strengths and gaps in student understanding; demonstration of theory in practice, and recognition and evidencing of soft skills, personal attributes and other career-readiness traits (Butler et al., 2006; Chaudhuri & Cabau, 2017; Cote & Emmett, 2015; Ferns & Comfort, 2014).

**Potential Roles of ePortfolios in Higher Education - ePortfolios as a Process and as a Product**

There has been much discussion around the typologies of ePortfolios, but the general consensus is that they include elements of both process (i.e., a series of activities) and product (i.e., the finished results). Combining the elements of process and product informs ePortfolios as a visual representation of student transformation, incorporating evidence of student development as well as creating a final product (Ferns & Comfort, 2014). Within the process and product typologies, ePortfolios can be for the purpose of process (i.e., the student transformation), assessment (formative or summative), and/or showcasing (e.g., employment or professional development). Students “are understandably most concerned about the uses of their portfolios as aids in gaining employment… (However) educators are most concerned about using portfolios to promote professional development and to make assessments” (Zeichner & Wray, 2001, p. 618). A solution is to curate different portfolios for each specific purpose (Butler et al., 2006; Zeichner & Wray, 2001). Chau and Cheng (2010) support this notion, proposing that if the audience is implied to be product-focussed, such as for employment, students may not meaningfully engage with some of the benefits of eportfolio integration, such as reflective processes. Indeed, as Lorenzo & Ittelson (2005) observe, ePortfolios can function well as an ‘administrative tool’
for organising and collating a variety of work for an intended audience, and control those who can view or interact with specific elements of the product. With this in mind, it can be seen that when integrating ePortfolios in tertiary education, the elements of process and product can be further refined by considering the intended audience.

**Curating Process ePortfolios to Demonstrate Student Competency**

A process portfolio can be described as a purposeful collection of student work that tells the story of a student’s effort, progress and/or achievement in one or more areas (Buchem, 2016). Much of the early work on ePortfolios focuses on their use as “a collection of evidence that is gathered together to show a person’s learning journey over time and to demonstrate their abilities” (Butler et al., 2006, p. 2). Buchem (2016), among others, points out that the ideals behind a process portfolio can create a bridge between learning and student agency in a variety of contexts, including formal and informal learning, and be used to provide evidence of student development. Butler et al. (2006) goes on to argue that reflective writing can be especially useful in this context, as the student can describe why they chose specific pieces of evidence and how they contributed to the learning journey, ensuring active participation in their own learning.

Utilization of process ePortfolio principles, with students seen as active agents in their learning process, aligns with socio-constructivist pedagogies (Abrami & Barrett, 2005). Chau & Cheng (2010) suggest that this tailored learner agency and knowledge construction can have many benefits to learners. This is supported by Eynon et al. (2014), whose research leads them to conclude that “students who built ePortfolios demonstrated higher grade-point averages, credit accumulation, and retention rates than did control groups” (p. 96). Chaudhuri & Cabau (2017) concur, acknowledging that the constructive alignment inherent in ePortfolio utilisation should clearly define and assess outcomes, which supports students in taking ownership of their learning, leading to “achieving … higher level learning outcomes” (p. 5). Cote & Emmett (2015) also argue that benefits of ePortfolios are derived simply from the final artefact of the ePortfolio itself, but rather from engagement in the process of portfolio creation. In supporting the implementation of ePortfolios to demonstrate transformative potential, institutions are not only demonstrating to students the importance of life-long learning, but providing students a mechanism by which this can be achieved and evidenced (Buchem, 2016; Ferns & Comfort, 2014).

**Curating Assessment ePortfolios to Demonstrate Student Competency**

An assessment portfolio is one that has been designed to ensure the focus is specifically on external evaluation or judgment, whether it be formative or summative evaluation of learning (Abrami & Barrett, 2005). In tertiary institutions, it is argued that ePortfolio based approaches to assessment provide connections to authentic work of both students and faculty. This construction provides opportunities for students and faculty to surpass assessment of learning and move towards assessment for learning—student learning, professional learning, and institutional learning (Eynon et al., 2014). Buchem (2016) continues this argument, highlighting that ePortfolios can be used to demonstrate a variety of evidence against criterion. Indeed, as constructivist, authentic assessments based on outcomes become more desirable in tertiary institution, ePortfolios can encapsulate assessment processes and products that, while personalized and unpredictable, are evidence-based and authentic (Eynon et al., 2014). However, as Ferns & Comfort (2014) also recognize, not only are assessment ePortfolios useful for formative and summative evaluation, they are also ideal for self-assessment, which is an important factor in professional development.
Curating Showcase ePortfolios to Demonstrate Student Competency

A showcase portfolio purposefully demonstrates the achievements, skills and competencies of the subject (Buchem, 2016), often for the purpose of employment or professional development (Abrami & Barrett, 2005; Zeichner & Wray, 2001). Abrami & Barrett (2005) also propose that demonstration is the cornerstone of showcase portfolios, as they should illustrate what has been learned, rather than simply identifying or describing. From the earlier definition by Butler et al. (2006), the “demonstration of abilities” element is the essence of the showcase ePortfolio. Ferns & Comfort (2014) point out that some professional bodies, such as the Australian Nursing Board, include accreditation requirements; graduating students seeking registration will address these via a suitably-curated showcase ePortfolio.

Considerations When Choosing an ePortfolio Platform

There are a variety of ePortfolio platforms available, with a wide range of functionality, useability, support and price. For example, familiar software such as MS PowerPoint can be repurposed for use as an ePortfolio (office.live.com), while Mahara can purpose-build a highly customizable platform to institution requirements (mahara.org). Sankey (2018, p. 37) proposed the list below to ensure that platforms could meet his requirements:

- Provide responsive mobile friendly access
- Allow media elements to be embedded and played
- Host supporting resources
- Link to external bodies of information (evidence) to support the claims made within
- Be visually attractive and easily navigable
- Serve multiple purposes, as a perpetual online CV, record of my research, gateway to other elements of my practice, provide a collation point for blogs and posts, and a distribution point to social media platforms and research sites and
- Receive syndicated information (feeds) from other sites (Twitter, WordPress, ePrints, etc.)

In addition to this, Table 1 compares PebblePad (paid license) and OneNote (free personal account) based on information available at pebblepad.com.au and Microsoft.com on 25 June, 2020, to demonstrate some elements that should be considered when comparing and selecting platforms.
TABLE 1: Comparing PebblePad and MS One Note as ePortfolio platforms.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>PebblePad</th>
<th>One Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Made of two elements. Pebble+- student and institution versions. Work space, templates, ePortfolios, competency documentation ATLAS- institution. Assessment and feedback space. Learning management system can be synchronized.</td>
<td>A digital notebook as part of the MS Office suite. Available online and as an app, and as personal and business accounts, with some different functionality between versions.</td>
</tr>
<tr>
<td>Support</td>
<td>Support allocated to organization from PebblePad- UK based, but local support. Online resources- ‘how-to’, videos etc.</td>
<td>Online support available. Online wiki, forums, help pages.</td>
</tr>
<tr>
<td>Exportable/Transferrable</td>
<td>Exported as an interactive .pdf, with embedded hyperlinks to some content (e.g. video)</td>
<td>Exported as a .zip with all pages. For single pages, can be exported as .pdf or .doc</td>
</tr>
<tr>
<td>Training required</td>
<td>Training required for staff and students.</td>
<td>Training required for staff and students, but likely to be less than PebblePad.</td>
</tr>
<tr>
<td>Social media integration</td>
<td>Links to social media can be embedded.</td>
<td>Links to social media can be embedded.</td>
</tr>
<tr>
<td>Storage</td>
<td>Local data hosting per region.</td>
<td>OneDrive storage, &lt;15 GB free.</td>
</tr>
<tr>
<td>Ongoing access</td>
<td>Free alumni account while university is subscribed.</td>
<td>While OneDrive account is active.</td>
</tr>
<tr>
<td>Assessment capabilities</td>
<td>Many customizable templates. Can see student work in real time. Group work possible.</td>
<td>Templates available, customizable. Can see student work in real time with access codes. Group work possible.</td>
</tr>
<tr>
<td>Tagging of assets</td>
<td>Assets can be tagged to use for evidence for multiple assessments.</td>
<td>Assets can be tagged with some pre-set tagging options</td>
</tr>
<tr>
<td>Mobile/offline integration</td>
<td>App available to collect evidence offline, upload when online.</td>
<td>Can be used offline, must download asset first. Automatic uploading when online.</td>
</tr>
<tr>
<td>Costs</td>
<td>Licensed, depends on student numbers as to rate (i.e. partial licensing or enterprise licensing). License per student, not per unit.</td>
<td>Free for individual use with OneDrive account (storage &lt;15 GB for total account). Business licensing available.</td>
</tr>
<tr>
<td>Overall impression</td>
<td>An assessment tool, with ePortfolio functionality available.</td>
<td>A notebook tool, with ePortfolio functionality available</td>
</tr>
</tbody>
</table>
While it can be seen that there is a variety of ePortfolio platforms to choose between, and selection will be informed by the requirements of the institution and industry stakeholders, the skills involved in curating an ePortfolio and artefacts used to demonstrate capabilities appear to be transferrable.

**Barriers to ePortfolio Implementation**

According to Ferns & Comfort (2014) and Abrami & Barrett (2005), some of the barriers to ePortfolio implementation include: technical requirements for ePortfolio use; post-graduation ePortfolio considerations, such as portability and privacy; rethinking assessment, including assessment fairness, reliability and validity; and staff professional development, in both assessment design and platform use. An individualized, student-driven ePortfolio may be time-consuming to assess and difficult to verify as authentic, in part due to the size and unstandardized format, and particularly in larger cohorts and/or when demonstrating contextualized content (Abrami & Barrett, 2005; Ferns & Comfort, 2014; Zeichner & Wray, 2001). Given that student use would be chiefly motivated by completing assessments for credit (Ferns & Comfort, 2014), Butler (2006) suggests that there will be tension for both students and educators between the focus on measuring competency and the purpose of the portfolio as a learning tool. It is clear that the potential variability in available preparation and ongoing support in various forms, for both educators and students, would affect the extent and impact of these tensions (Hatzipanagos & Lygo-Baker, 2012).

**Conceptual Underpinnings of Employability and Professional Identity**

 Employers, while understanding the necessity of subject discipline mastery, realize that this is only part of the skill set required of a graduate. A complex equation including multi-contextual core and soft skills are assessed by potential employers and required by industry; graduates must be skilled according to the requirements of employers (McQuaid & Lindsay, 2005; Suleman, 2018; Yorke, 2006). Therefore, higher education’s responsibility to students lies in increasing their graduate employability—not the ability of the graduate to find work, but rather ensuring the graduate possesses the skills, knowledge and attributes, or capabilities (Ferns & Comfort, 2014) required by employers (Precision Consultancy, 2007; Yorke, 2006). However, as Suleman (2018) argues, competence in these capabilities cannot necessarily be directly observed, but must be evaluated and assessed, with student opportunities to demonstrate growth and ability in industry-desired proficiencies coordinated by stakeholders. The uptake of these capability-aligned professional roles and responsibilities is the link to building the professional identity of the student, which can be fostered by manifesting authentic experiences for the student, such as in WIL contexts.

Professional identity can be defined as “The self that has been developed with the commitment to perform competently and legitimately in the context of the profession, and its development can continue over the course of the individuals’ careers” (Tan et al., 2017, p. 1505). Essentially, it is the understanding of the behaviors and standards required by the profession, connected with the ideology, values, and beliefs that an individual within the profession would be expected to display (Bruss & Kopala, 1993; Trede et al., 2012). Hoeve et al. (2014) suggests that this can be correlated with an individual aligning professional self within one’s general self, and therefore providing satisfaction when performing the role. Development of professional identity requires “students’ active engagement and agency in conjunction with appropriate support and mentorship from academics” (Trede et al., 2012) who understand the professional values of the industries and careers within which the students aim to enter. This link is perhaps best summarized by Trede (2012), who says “Being, thinking and acting as a professional are underpinned by professionalism and a sense of professional identity” (p.
However, much of the literature alludes to the idea that educators assume that professionalism and professional identity are implicit in their curriculum, while students make these connections indirectly, if at all. As ePortfolios can showcase professional identity, there is scope to use them as a tool to enhance these connections and enrich the link between tertiary education and employability.

**Aligning Student Competency with Industry Requirements: Nursing and Midwifery Case Study**

The Nursing and Midwifery Board of Australia (NMBA) regulates the practice of nursing and midwifery in Australia by developing registration standards, professional codes, guidelines and standards for practice which together establish the requirements for the professional and safe practice of nurses and midwives in Australia (Australian Health Practitioner Regulation Agency, 2020). For students, this involves a series of clinical placements, which must be documented appropriately to meet registration standards. There have been several case studies investigating the use of ePortfolios to showcase evidence of learning in tertiary nursing and midwifery programs; this synthesis aims to identify notable elements of some of these.

Much of the literature (Andre, 2010; Andrews & Cole, 2015; Haverkamp & Vogt, 2015) argues that providing the ePortfolio audience with the artefact and the contextual reflections associated with it is a valuable task in the tertiary Nursing and Midwifery environment. For example, in order to personalize the student learning experience and increase the manageability of the portfolios already required in the units, a pilot phase was conducted at The University of Western Australia, introducing ePortfolios into a Nursing and a Public Health unit. For each, students were required to produce a “comprehensive portfolio that collates reflections and feedback from previous clinical placements in order to provide potential employers and the national registration board with a clear indication of students’ professional competencies and clinical readiness” (Davine, 2014, p.76). This is similar to the Andrews and Cole (2015) and Godwin and Patton (2014) case studies, who add that using an ePortfolio platform should also provide an opportunity for meeting supervision and assessment of experience and reflection requirements. Andrews and Cole (2015) add that integration of ePortfolios allows for students to identify strengths and weaknesses against the competencies required for registration.

**Integrating Nursing and Midwifery Program Assessment Tasks with ePortfolios/Work-Integrated Learning**

In Davine’s (2014) case studies, the assessment tasks were to produce a comprehensive portfolio, collating clinical placement activities, reflections and feedback. To support students, included in assessment documentation was either a sample ePortfolio, or a template which students personalized with their experiences and reflections. The latter was regarded by students and staff as easier to use. Godwin and Patton (2014) expanded on the template idea by using forms for the students to replicate and complete, including automatic tagging (e.g., new birth or patient ID) and digital supervisor signatures. Checklists and feedback were included in the process in order to meet registration criteria and showcase learning. Andre (2010) agrees with this strategy, pointing out that “templates or tools may be designed by organizations to encourage the user to attend to specific priorities” (p. 122), such as those required by industry regulatory bodies, and that opportunities for audience feedback can be included in the design. Andrews and Cole (2015) present a slightly different strategy, as ePortfolio implementation in their case study is embedded over multiple years, rather than individual units. Their assessment tasks are aligned with the three stages of digital competence, digital usage and digital transformation, therefore, early tasks involve basic development of profiles, images and representations of themselves, leading to assessments involving journaling and creating of digital artefacts, and culminating in the creation of an ePortfolio for applying for graduate positions.
Aligning Student Competency with Industry Requirements- Engineering Example

While nurses and midwives are required to be registered with a governing body to practice, according to Engineers Australia (n.d.-b, Registration of Engineers section) “(t)he title “engineer” is not protected in Australia, therefore anyone can claim to be an engineer and practice without the necessary competencies, understanding of standards, or in compliance with a code of ethics”. However, accredited tertiary programs have standards in place for graduation with an associated qualification, and the state of Queensland has registration standards and requirements, with other states expected to follow suit, such as Victoria in July 2021 (Engineers Australia, n.d.-b). There is also an optional registration with the National Engineering Register (NER), which badges itself as “a badge of professionalism, demonstrating professional recognition and public trust” (Engineers Australia, n.d.-a, A guide to the National Engineering Register section, in About the NER para. 2). Many tertiary institutions have already implemented these as their own minimum standards, for example Curtin University requires students to complete an Exposure to Professional Engineering Practice (EPEP) Logbook, in addition to meeting course requirements. This directly aligns with the requirements of the NER, who require demonstrated professional competence and experience in areas of expertise, supported by technical competencies referenced in a Work Experience Statement (Engineers Australia, n.d.-a).

The need to record WIL experiences, including the context, the individual’s role and reflecting on the lessons learned in order to achieve professional competency make an ePortfolio system an obvious and useful tool within tertiary engineering education (Pate, 2014). In the case study by Knott et al. (2005) ePortfolios were introduced to the observed cohort as “a tool for the collection of samples of their academic and extracurricular work over their academic career and as an aid in their learning” (p. 3), as well as a potential future assessment method. In contrast, Williams (2001) is concerned specifically with “(student) misapprehensions regarding what constitutes effective engineering communication, how they should develop those skills, and how their skills will be assessed” (p. 1), and investigates the use of ePortfolios as a solution to this, while still acknowledging their potential for use in technical skills.

Integrating Engineering Program Assessment Tasks with ePortfolios/Work Integrated Learning

In the case studies from both Aguiar et al. (2014) and Knott et al. (2005), students were explicitly taught how to use the ePortfolio interface, as well as instructed to use certain elements of their learning to create their individualized portfolio. Aguiar et al (2014) included reflections that were graded mostly for completion, but contained elements required by the relevant regulatory body, while in Knott et al. (2005), students were assessed on both the assignment itself; designed to encourage reflective practice; and the inclusion of the evidence of learning in the ePortfolio, as required in current NER requirements. This pedagogy appears similar to Williams’ (2001) case study, who argues that assessments including ePortfolios should be based on authentic rubrics, informed by industry requirements and/or professional standards.

In comparison, much like Andrews and Cole’s (2015) case study involving three stages of digital competence, Pate’s (2014) case study involved assessment of three ePortfolio pages created by the student, specifically designed to be on a rising scale of complexity. The first page serves to introduce the student and their workbook, the second page asked for evidence of completion of a group work task completed during the semester, and the final page required students to demonstrate capabilities; students were “asked to provide evidence of team work, and consideration of safety, ethics, and
sustainability throughout the semester” (Pate, 2014, p. 23). Even with a modified approach, assessment links to requirements for external, post-university accreditation are evident here.

CONCLUSION

Stakeholders in tertiary education expect graduating students to have employability skills required of the workforce. Student learning outcomes should be aligned with industry expectations of graduates, and assessment tasks intentionally designed with this result in mind. There is a growing body of evidence supporting the use of ePortfolios for this purpose. Much of the research argues that ePortfolios are a valuable tool in linking student assessment and WIL practices with external industry accreditation and therefore employability. While institutions will understandably compare functionality, usability, support and price when selecting an ePortfolio platform, it appears that pedagogy will transfer between domains. Perhaps the most important conclusion is that professional identity and personal agency can be strengthened by the curation and selection of particular artefacts by the student. This is crucial to ensure that the student, as a future member of the workforce, can satisfactorily demonstrate their technical and transferrable skills, to promote life-long learning, and encourage reflection.

The use of portfolios in education and post-university accreditation are not new, but are an important focus as tertiary institutions aim to produce ‘job-ready’ graduates. There has been some research into the logical links between ePortfolios and external accreditation, but further research is required in broader contexts, where the link between an undergraduate degree and registration with a regulatory body as an employment condition is not evident. Exploring the long-term effects of ongoing ePortfolio use on the developmental success in careers of the students/professionals would also be a worthy pursuit, as this is not yet evident in the literature.

REFERENCES


About the Journal

The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues dealing with Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE). Since then the readership and authorship has become more international and terminology usage in the literature has favored the broader term of WIL, in 2018 the journal name was changed to the International Journal of Work-Integrated Learning.

In this Journal, WIL is defined as "an educational approach that uses relevant work-based experiences to allow students to integrate theory with the meaningful practice of work as an intentional component of the curriculum. Defining elements of this educational approach requires that students engage in authentic and meaningful work-related task, and must involve three stakeholders; the student, the university, and the workplace". Examples of practice include off-campus, workplace immersion activities such as work placements, internships, practicum, service learning, and cooperative education (Co-op), and on-campus activities such as work-related projects/competitions, entrepreneurships, student-led enterprise, etc. WIL is related to, but not the same as, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal’s main aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, co-op/WIL practitioners, and researchers. The Journal desires to encourage quality research and explorative critical discussion that leads to the advancement of effective practices, development of further understanding of WIL, and promote further research.

The Journal is ongoing financially supported by the Work-Integrated Learning New Zealand (WILNZ), www.nzace.ac.nz and the University of Waikato, New Zealand, and received periodic sponsorship from the Australian Collaborative Education Network (ACEN) and the World Association of Cooperative Education (WACE).

Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL is primarily of two forms; 1) research publications describing research into aspects of work-integrated learning and, 2) topical discussion articles that review relevant literature and provide critical explorative discussion around a topical issue. The journal will, on occasions, consider best practice submissions.

Research publications should contain; an introduction that describes relevant literature and sets the context of the inquiry. A detailed description and justification for the methodology employed. A description of the research findings - tabulated as appropriate, a discussion of the importance of the findings including their significance to current established literature, implications for practitioners and researchers, whilst remaining mindful of the limitations of the data, and a conclusion preferably including suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical and scholarly discussion on the importance of the issues, critical insights to how to advance the issue further, and implications for other researchers and practitioners.

Best practice and program description papers. On occasions, the Journal also seeks manuscripts describing a practice of WIL as an example of best practice, however, only if it presents a particularly unique or innovative practice or was situated in an unusual context. There must be a clear contribution of new knowledge to the established literature. Manuscripts describing what is essentially ‘typical’, ‘common’ or ‘known’ practices will be encouraged to rewrite the focus of the manuscript to a significant educational issue or will be encouraged to publish their work via another avenue that seeks such content.

By negotiation with the Editor-in-Chief, the Journal also accepts a small number of Book Reviews of relevant and recently published books.
EDITORIAL BOARD

Editor-in-Chief
Dr. Karsten Zegwaard
University of Waikato, New Zealand

Associate Editors
Dr. Judene Pretti
University of Waterloo, Canada
Dr. Anna Rowe
University of New South Wales, Australia
Assoc. Prof. Sonia Ferns
Curtin University, Australia

Senior Editorial Board Members
Dr. Bonnie Dean
University of Wollongong, Australia
Dr. Phil Gardner
Michigan State University, United States
Prof. Denise Jackson
Edith Cowan University, Australia
Assoc. Prof. Ashly Stirling
University of Toronto, Canada
Emeritus Prof. Janice Orrell
Finders University, Australia
Emeritus Prof. Neil I. Ward
University of Surrey, United Kingdom

Copy Editors
Yvonne Milbank
International Journal of Work-Integrated Learning
Diana Bushell
International Journal of Work-Integrated Learning

Editorial Board Members
Assoc. Prof. Erik Alanson
University of Cincinnati, United States
Prof. Dawn Bennett
Curtin University, Australia
Mr. Matthew Campbell
Queensland University of Technology, Australia
Dr. Craig Cameron
Griffith University, Australia
Dr. Sarojini Choy
Griffith University, Australia
Prof. Leigh Deves
Charles Darwin University, Australia
Mr. David Drewery
University of Waterloo, Canada
Assoc. Prof. Michelle Eady
University of Wollongong, Australia
Assoc. Prof. Chris Eames
University of Waikong, New Zealand
Dr. Jenny Fleming
Auckland University of Technology, New Zealand
Assoc. Prof. Wendy Fox-Turnbull
University of Waikong, New Zealand
Dr. Nigel Gribble
Curtin University, Australia
Dr. Thomas Groeneveld
University of South Africa, South Africa
Assoc. Prof. Kathryn Hay
Massey University, New Zealand
Dr Lynette Hodges
Massey University, New Zealand
Ms. Katharine Hoskyn
Auckland University of Technology, New Zealand
Dr. Sharleen Howison
Otago Polytechnic, New Zealand
Dr. Nancy Johnston
Simon Fraser University, Canada
Dr. Patricia Lucas
Auckland University of Technology, New Zealand
Dr. Jaqueline Mackaway
Macquarie University, Australia
Dr. Kath McLachlan
Macquarie University, Australia
Prof. Andy Martin
Massey University, New Zealand
Dr. Norah McRae
University of Wollongong, Australia
Dr. Laura Rook
University of Wollongong, Australia
Assoc. Prof. Philip Rose
Hannam University, South Korea
Dr. Leonie Russell
RMIT, Australia
Dr. Jen Ruskin
Macquarie University, Australia
Dr. Andrea Sator
Simon Fraser University, Canada
Dr. David Skelton
Eastern Institute of Technology, New Zealand
Assoc. Prof. Calvin Smith
University of Queensland, Australia
Assoc. Prof. Judith Smith
Queensland University of Technology, Australia
Dr. Raymond Smith
Griffith University, Australia
Prof. Sally Smith
Edinburgh Napier University, United Kingdom
Prof. Roger Strasser
University of Waikong, New Zealand
Prof. Yasushi Tanaka
Kyoto Sangyo University, Japan
Prof. Neil Taylor
University of New England, Australia
Ms. Genevieve Watson
Elysium Associates Pty, Australia
Dr. Nick Wempe
Primary Industry Training Organization, New Zealand
Dr. Theresa Winchester-Seeto
University of New South Wales, Australia
Dr. Karen Young
Deakin University, Australia

Publisher: Work-Integrated Learning New Zealand (WILNZ)
www.wilnz.nz