ABSTRACT

This paper presents findings from the first half of a study focusing on workforce competence (WFC) and open educational practices (OEP) in a core unit for university students. Approximately 500 students per semester from across college disciplines take the unit in cultural studies. This unit has been redeveloped by our team at a university in remote northern Australia with a well-established blended delivery practice. I used developmental evaluation and content analysis to identify criteria for developing WFC skills in unit content, students’ feedback, and work samples. Initial findings suggest that OEP, interdisciplinary use of educational technology and critical pedagogies embed WFC skills for many students. Students endorsed how we used technologies, OEP and unit content as vehicles for desirable skills. OEP can cultivate workforce skills in different qualifications and could sidestep the conflicting dilemmas graduates face with futures that demand flexibility and specific job fit. This short piece shares initial analysis of emergent links between OEP and WFC and points to ways OEP, related interactions and workforce skills can improve learning design strategies across the education sector.
INTRODUCTION

Covid-19 pressures, funding restructures, and loss of international students has increased scrutiny on university education. Increased online learning during lockdowns further magnify instructional problems with producing well qualified graduates. ‘Job readiness’ is also a familiar term in Australian education and is now framing the sector’s future more. In response to this pressure, I wanted to evidence how critical use of open educational practices (OEP) and collaborative pedagogies contributes to job readiness within blended delivery and interdisciplinary contexts. OEP are conceptualised as multiple entry points to learning and openness (Cronin & Maclaren 2018). OEP in this study are also characterised by ‘collaborative practice in which resources are shared by making them openly available, and pedagogical practices are employed which rely on social interaction, knowledge creation, peer-learning, and shared learning practices’ (Ehlers 2011:6).

A new consultation paper is proposing funding allocation to universities based on curriculum co-design with Industry; the National Priority Industry Linkage Fund (NPILF) consultation paper (NPILF 2020). Additionally, government and corporate reports have listed desirable workforce skills (Table 1), demonstrating considerable overlap with trends such as ‘soft skills’ for workforce success. This paper summarises some findings of my Global OER Research Network (GO-GN) fellowship, focused on workforce competence (WFC) in OEP. This fellowship examined links between the use of critical pedagogy and OEP to develop WFC via blended delivery in large-scale learning. This fellowship uses these criteria to evaluate critical OEP for their ability to develop job readiness.

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<td>Collaborating</td>
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<td>Connectedness, digital citizenship, collaborative</td>
<td>People management, coordinating with others, service orientation</td>
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<td>Learning &amp; adapting</td>
<td>Emotional intelligence</td>
<td>Lifelong learning, self-driven, Positive thinking</td>
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<td>Entrepreneurship</td>
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<td>Analytical</td>
<td>Analytical thinking skills, complex problem solving</td>
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<td>Non-automatable</td>
<td>Leadership, social influence, Emotional intelligence</td>
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Table 1 Consolidated WFC Criteria.

LITERATURE

WORKFORCE COMPETENCE AND ‘FLEXIBILITY’

Flexibility is held as a positive professional attribute. The capacity to shapeshift between career and organisational perimeters is based on calls for future-proofing workforces (Jacobs & Hawley 2009; Doxtator 2017). This flexibility could also be thought of as resilience, adaptability, or responsiveness, and not just for the sake of pleasing employers. Flexible workforce theory also emphasises self-sufficiency as key to success, yet Tomlinson et al. (2018) acknowledge careers literature neglects the impacts of multiple factors affecting and defining individuals’ ‘success’. Adaptability is an important skill beyond having workplace specific skills, and if education is tailored too closely to particular workplaces, those skills are not readily transferable or valid for the flexible career path and ‘jobs that don’t exist yet’ (The Conversation 2014; Moore &
This complexity presents a dilemma for graduates and their ‘readiness’ for meeting unpredictable workforce criteria; should they cultivate a seamless transition and perfect skill fit, or adaptability, creativity, collaboration, problem solving as ‘job ready’ skills (NPILF 2020)? It could be argued that, in the current climate, universities should equip graduates to flexibly adjust their own choices and lifelong learning paths, rather than fit into a ready-made one and stay there for life.

This paper provides evidence that embedding critical use of OEP in blended delivery of an interdisciplinary class can bridge academic and professional worlds via WFC. Situated, authentic partnerships between university, students and their career sectors could more openly develop transition among roles within post-Covid economic complexities (NPILF 2020), increasing desired flexibility and responsiveness. Given how we are reforming how we learn and what we learn (Peters et al. 2020), we could also be slowly baking how we work into that reform.

FRAMING CRITICAL OEP IN WORKFORCE LEARNING

In this project, OEP attempts consensus and critical understanding via a communication focus across blended digital and cultural systems (Habermas 1987; Bottomore 2002). OEP is also authentic learning; a two-way process (Yunupingu 1989; Bartlett, Marshall, & Marshall 2012) happening with, not to, learners. Two-way, consensual, engagement reduces ‘banking’ learning (Freire 1970), developing competence in application of knowledge to a context (Funk, Guthadjaka & Kong 2015; Funk & Mason 2015). Authentic, collaborative communication in knowledge work values a situated community of practice (Lave & Wenger 1991) and empowers participation (Freire 1970). Critical use of learning technology and OEP can therefore re-present (Freire 1970) workforce knowledge and authentic, collaborative, context-embedded practice (Cummins 1996, 2000; DeRosa & Robison 2015). In practice, this study’s OEP included open peer review of drafts, discipline-based situated knowledge and connections to industries (Lave & Wenger 1991), contextualised assessments with students’ experience, open textbook co-authorship, open access readings and support clips, and iterative learning co-design during lockdowns.

Changing workforces, wicked problems (Alexander et al. 2019), data poverty and digital illiteracy are opportunities to integrate competence across educational practice and disciplines (Adnan & Anwar 2020). However, relying on expensive digital tools exacerbates divides between world class and remotely situated and lower profile ‘bush’ colleges (Czerniewicz 2018). This limits opportunities for which blended delivery and distance education exist (Prinsloo 2016). This form of critical OEP can promote ‘institutional and educational reforms, questioning and challenging the epistemological foundations of who we are, what we teach and learn, and how we engage with the rest of the world,’ (Peters et al. 2020:9) be it online or offline.

Reforms include shifting power relationships via increasingly critical OEP pedagogies, and student-focused activities aligning with collaborative and two-way learning, engaging learners as active participants (Martin et al. 2019). Through critical digital pedagogy, students do not follow ‘where the instructor leads...’ (Morris 2020). Engaging students in digital and open practices with their discipline areas can expand what it means to ‘be critically literate’ and ‘empowered with technical and sociocultural competencies’ (Nascimbeni 2018). This OEP aims to be equitable practice, engaging in student co-creation in a ‘peer-based working relationship’ so that student ‘voices and lived experiences are embedded’ (Kukulska-Hulme et al. 2021). This study’s OEP is knowledge- and critical pedagogy-based, beyond technology-driven content access (Geser 2007; Stagg et al. 2018). The shifts required are increased student participation and empowerment (Arinto, Hodgkinson-Williams & Trotter 2017), reliant on non-automatable human agency, adaptability, collaboration, creativity, and problem solving.

METHODS

The literature’s focus on situated knowledge (Lave and Wenger 1991; Patton 1994, 2010; Outhwaite 2009) helped us use student and stakeholder input to constantly review and create more contextualised learning each semester (Habermas 1987; Kemmis & McTaggart 2005; Kincheloe & McLaren 2002; Funk, Worthington & Price-Winter 2016). This study blends developmental evaluation (Patton 1994, 2010) and content analysis (Neuendorf 2017) to
understand and deepen links between OEP and workforce competence. Developmental evaluation is circular and iterative, rather than linear. Key word criteria for workforce skills emphasised in the literature and outlined in Table 1 helped identify content in the unit, students’ feedback, and work samples as part of the developmental evaluation (CDU Human Research Ethics number H20097).

Each semester, I evaluated unit materials and student evaluation comments for reference to these key skills. Main themes identified in a first reading of data were:

- how teacher – learner interactions,
- OEP (as defined in the introduction),
- learning design,
- and use of collaborative education technology supported their workforce competence and positive experience of learning.

At the time of writing, I had collected a student evaluation response rate of 20% (N = 135 out of 611) over two semesters (halfway through the project). I also selected student work samples if they referred to this set of skills and concepts. At that point in the study, I collected consent to use a total of 39 samples. I coded students’ anonymised evaluation comments and written text for skills and concepts identified as helpful. Each semester’s data further developed the subsequent semester’s learning design thereby performing a ‘developmental evaluation’ (Patton 1994, 2010) of the unit.

DATA AND DISCUSSION

WORKFORCE COMPETENCE

Developing workforce competence is determined by several factors (Tomlinson et al. 2018). Within the remit of blended delivery in an interdisciplinary class, students’ career preparation can compete with multiple actors like discipline culture, and styles of delivery expected. For this reason, it made sense to embed workforce skills from Table 1 within OEP and participatory use of learning technology. Using students’ academic and career paths for assessments material and in open peer review allowed them to re-present their knowledge in a situated community of practice, relevant to their academic, and professional pathways (Freire 1970; Lave & Wenger 1991). It is hoped that this provided a safe, equitable space for students to develop sociocultural competencies (Nascimbeni 2018) and see how concepts and WFC skills translate to various fields.

- This unit has helped towards ... becoming a primary teacher. ...Connecting with other students on topics such as the unconscious bias has demonstrated communication on sensitive topics can be achieved in a safe space
- it helped identify my privilege as being a male ... in my Engineering profession
- to become a psychologist. ...I became more self-open and self-reflective
- ...my IT career it helps me to build respect and trust from my team member in group projects
- working in a male dominated industry...I am more aware of how I might mitigate this imbalance for myself and others
- ... into the Humanitarian Aid field armed with the skills to ...use my privileges to promote equity
- I am able to recognise power relations in all academic and health service interactions

CRITICAL OEP IN WORKFORCE LEARNING

Cultivating two-way, collaborative, and consensual communication allows students to manage their learning in increasingly self-sufficient ways. Our teaching team and students developed a community that supports skills by the ways we use tools and concepts, not by the way we ‘deliver content.’ This took the form of students ‘occupying’ the discussion board and sharing
drafts in peer review. The community of practice (Lave & Wenger 1991) developed a safety net where students supported each other’s work and skill development in the open, for the entire cohort to see.

• this unit educated me to **understand a shift** into a new sub-culture without losing my own cultural identity... **purposeful behaviour academically and professionally** ... and act **collaboratively** to create an **open and safe place**

• My classmate’s **openness** may have been less in a face-to-face classroom

• ... helped me to empower my **critical thinking** strategies ...

• The online learning process provided me with **new IT skills**

• my lecturers and peers, ... allowed me to improve my **time management and delegation skills**, **gaining independence and confidence**

• I am not always actively engaged in conversation during class, **online education has afforded me the anonymity and simultaneous inclusivity to achieve the learning outcomes** in a safe and supportive environment. One I hope to emulate in my future works with my community when I complete my degree in Social Work

The last point above reveals that the student felt participation was open to them despite being an observer within blended delivery. Creating critical open pedagogies and spaces for students to engage from where they are meets equitable practice standards, increases participation and empowerment (Arinto, Hodgkinson-Williams & Trotter 2017), and opens ‘multiple ways in’ to learning (Cronin & Maclaren 2018). This further validates that it is the critical and open way we cultivate **critical OEP** which empowers students for the social contexts in which they work (Wallace 2011; Peters et al. 2020).

**CONCLUSION**

In this study, OEP fostered student responsiveness, resilience, and flexibility concerning complex workforce skills. OEP helped students develop collaborative, creative, critical, and supportive learning communities and practice. Whether purely online or blended delivery, WFC with the use of increasingly critical OEP supports learning relationships across and between fields of study, peers, and university learning cultures. More in depth analysis of the entire data set will further explore correlation between links in themes and criteria.

**RECOMMENDATIONS**

1. Instructional Staff and Students: flatten power relations between students, staff and technology for OEP to provide collaborative ways to engage with workforce skills to support learning.

2. College / Middle Management: encourage and champion OEP and critical open pedagogical cultures within teaching and learning leadership. Frame learning relationships across industry stakeholders, staff, and students as two-way (or more) engagement in blended contexts, emphasising learning relationships rather than technology.

3. Universities: provide executive policy, guidelines, resources, and infrastructures to reward and promote OEP teaching and learning cultures. Support student agency and create appropriate spaces for industry engagement.

4. Industry and Employers: bridge students’ academic experiences with application-focused partnerships to illustrate workplace skills. Diversify flexible work experience placements.

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COMPETING INTERESTS
The author has no competing interests to declare.

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