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# The impact of pre-entry work experience on university students' perceived employability

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## ABSTRACT

Much research on the employability development of university students and the employability experience of graduates treats learners as experientially homogenous and ignores the potential impact of pre-entry work experience on either students' confidence or their employability-related behaviours. This study explored the confidence of commencing students aged 17 to 21. The objective was to understand whether and how study and career confidence differs among commencing students according to whether they have never worked, are working whilst studying, or have worked previously and have stopped work. The impact of work experience including that gained prior to university entry is often overlooked when discussing students' perceived employability. This largely quantitative study explores the perceived employability of commencing university students who began their studies soon after finishing high school and compares these self-perceptions relative to work experience. The study employed a self-measure of study and career confidence (Bennett, 2021) grounded in social cognitive career theory with 2,374 full-time students. Differences across the categories were explored using t-tests and multivariate analysis. The analysis concluded that 1,272 students (53.6%) were *working* at the time of the study, 1,025 students (46.4%) had previously worked but were *not working* at the time of the study and 77 students (3.2%) had *never worked*. The findings, illustrated by students' text-based descriptions of their employability development activities, suggest a hierarchical relationship between pre-entry work-experience and more confident self-perceptions of employability. Implications for higher education employability development are discussed.

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Career development; experience; higher education; part time work

## Introduction

The development of graduate employability has received unprecedented attention over recent years (hidden; Tomlinson 2017). Whilst a wealth of literature has examined multiple aspects of employability, this has largely been concentrated on either the employability development of students (e.g. Fowlie and Forder 2020; Jackson and Tomlinson 2020) or the employability experiences of graduates (e.g. Monteiro et al. 2020; Naess 2020; hidden). As Healy, Hammer, and McIlveen (2020) point out, there has been limited theoretical or practical exchange between the two.

There is a similar deficit of research which considers the alignment of students' pre-entry work experiences and the interaction with their employability development whilst at university. As

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a result, much of the research on employability development treats students as experientially homogenous and ignores the potential impact of pre-entry work experience on students' self-perceptions of employability and their employability-related behaviours. Not taking into account students pre-arrival work experience is a gap in the literature and in practice, as Blake and Worsdale (2009) suggest, reflection and attention to work experiences are a key part of employability development and can impact confidence for students.

The study reported here was conducted in Australia, where a significant body of work with national graduate outcomes data suggests that paid work in the final year of study positively impacts the likelihood of graduates being able to secure graduate-level work (Li et al. 2017; Jackson and Collings 2018). However, in Australia as elsewhere the impact of work experience *prior* to university has been little investigated. Our study explored the relationship between perceived employability and pre-entry work through an online student self-assessment of perceived employability. The research objective was to understand whether and how perceived employability differs among commencing higher education students according to whether they have never worked, are working whilst studying, or have worked previously and have stopped work whilst studying. We pay particular attention to any variations in perceived employability related to students' individual characteristics and gender and student fee status (international or domestic) factor as key concerns of this enquiry.

We begin the article with an overview of the literature related to students' paid work and issues of equity. We then turn to materials and methods. The results section reports both quantitative and qualitative data derived from the self-assessment tool. We end with a discussion of the findings and note the implications for future research and practice.

## The complex relationship between concurrent work and learning

The impact of paid work during higher education studies, including on retention rates (Hovdhaugen 2013), has received welcome attention. Previous studies have most frequently been conducted in Australia, Britain and the United States (Bradley 2006; Hall 2010; Oonyu 2019), but research efforts are increasing in Africa (Oonyu 2019) and in China (Tam Oi I and Morrison 2010). These extant studies note that the prevalence of paid work among higher education students is increasing around the world (see also Creed, French, and Hood 2015). Some studies also emphasise the benefits of paid work, provided of course that a student's work-related time commitment does not impinge on the time needed for study; however, the relationship between work and study is complex (Coates 2015).

The potential benefits of work during study have received most attention in relation to their impact on graduate employment outcomes, which despite heavy criticism are commonly reported as a proxy for educational quality (Clegg 2010). The positive impact of work on study progression has also been extolled, including in this journal (Jackson and Collings 2018). Indeed, the reported benefits of working during study include enhanced capacity to transition into the workforce (Coates 2015); greater financial security (Curtis and Shani 2010); improved confidence (Muldoon 2009); and generic (non-technical) skill development (Smith 2009). There is also disagreement within the literature: for example, Brooks and Youngson (2014) find that students who undertake an industry placement are more likely to gain full-time employment within six months of graduating, whilst Jackson and Collings (2018) find that such work integrated learning does not increase graduate full-time employment rates and Gbadamosi et al. (2019) find that the impact of placements diminishes over time.

Creed, Hood, and Hu (2019, 4) suggest that work during study fosters 'job crafting', described as a 'self-regulatory response generated to reduce perceived gaps between actual and desired work'. The authors note that job crafting helps students to negotiate role conflict and is likely have flow-on effects for organisational socialisation, the formation of career goals, and individual well-being and performance (see also Rudolph et al. 2017). Not surprisingly, previous studies also suggests that employers view part-time work experience as an indicator of work readiness. As

such, many employers relate work experience with a range of skills and life experiences which might be absent among students with only academic experience (Evans, Maxfield, and Gbadamosi 2015).

For many students, however, paid work is not a choice but a necessity; thus, the impact of work might be experienced differently according to a variety of factors including financial means. Increases in the amount of work undertaken by HE students are largely aligned with the demise in many countries of free higher education and other forms of financial support (Tomlinson 2016). At the same time, rapid massification of higher education has resulted in a growing number of students who are unable to rely on forms of support which are more typically available to their high socio-economic peers (Wainwright and Watts 2019). In England, Hordósy, Clark, and Vickers (2018) find that part-time employment is necessary for the financial survival of many students and that the demands of work can constrain the time needed to develop employability skills related to their studies, thus furthering the impact of disadvantage (see also hidden; Stuart et al. 2011). Studies such as these emphasise the importance of clarifying the impact of part-time work for employability development and recognise the benefits or potential benefits of a range of accessible experiences, particularly within the core curriculum.

In summary, despite an increasing emphasis on authentic work experience and growing concerns about graduate employment rates in high participation higher education systems, the impact of students' concurrent or previous engagement in paid work merits further attention.

## Materials and methods

### Instrument

The perceived employability measure used for the study (details hidden) was delivered in the form of an online self-assessment tool to which first-year students responded during their first semester (12 weeks) of study. By completing the tool, each student generated a personalised profile report which included scaffolded activities and embedded links to developmental resources. The process was designed to enable students to further their employability thinking and increase their developmental agency, both within the curriculum and for their 'just-in-time' developmental needs.

The measure integrated principles of Bandura's (1986, 1997) social cognitive theory (SCT) and Lent, Brown, and Hackett (1994) social cognitive career theory (SCCT) into a formative self-measure of perceived employability. The reliability for each construct within the measure was previously estimated using Cronbach's alpha coefficient (Cronbach 1951). All constructs had alphas over 0.70, indicating acceptable internal consistency (hidden). The constructs are introduced to follow, with sources given where applicable.

- *Communication skills*. The Communication scale (eight items) refers to the use of language and technology when communicating with others. Items were derived from Coetzee (2014).
- *Digital and technological literacy*. This four-item scale asks students to rate their ability to learn and use digital technologies relating to study, work and career planning.
- *Problem solving and decision making*. Problem solving and decision are measured using 10 items derived from Coetzee (2014).
- *Goal-directed behaviour*. Learners' employability development is underpinned by their ability to operate as self-regulated learners. Expressed as goal-directed behaviour, the 10-point scale was derived from Coetzee (2014).
- *Career (study) commitment*. The extent to which students identify with, and are committed to their chosen study pathway, is assessed using Mancini et al.'s (2015) eight-point career commitment scale.
- *Self-esteem*. Self-esteem is measured using the positive wording version of Rosenberg's (1965), 10-item self-esteem scale.

- *Academic self-efficacy.* Academic self-efficacy refers to learners' confidence in their ability to perform academic tasks. Items were adapted from Byrne, Flood, and Griffin (2014) academic self-efficacy measure.
- *Ability and willingness to learn.* Seven items derived from Coetzee (2014).

Perceived programme relevance. Perceived programme relevance refers to students' confidence and includes students' motivation, study retention and completion, and knowledge retention. Three of the four items were derived from Smith, Ferns, and Russell (2014).

- *Career exploration and awareness.* In line with SCCT, career exploration and awareness is measured using Lent et al.'s (2016) eight-point decisional self-efficacy factor.
- *Occupational mobility.* Lent et al.'s (2016) four-point decisional coping efficacy factor is used to measure occupational mobility.
- *Emotional literacy.* Four aspects of emotional intelligence, measured with 19 items derived from Brackett et al. (2006).
- *Ethical and responsible behaviour.* Employability is an aspect of social citizenship and should consider both individual and broader societal impacts. As such, the scale incorporates aspects of ethical and responsible behaviour derived from Coetzee (2014).

Demographic data were amassed on age in years; sex; location; highest completed level of education; and institution in which the student was enrolled. Within the tool, students were also presented with optional text-based questions or prompts relating to their work and study backgrounds, career intentions, choice of major and their feedback about current courses (programmes). The two prompts of relevance here were worded as '*Please tell us about your work and career until now*' and '*Beyond your studies, what are you doing to prepare for graduate life and work?*'. These open-ended questions were critical to the analysis in this research and in order to create separate cohorts for the quantitative operations to compare against.

### **Recruitment and process**

Ethical approvals were obtained before the study commenced (approval number HRE2017-0125) and invitations to participate were issued via the university's academic networks, senior leaders, programme coordinators and heads of school. Students received an information sheet and an assurance of anonymity, and they completed a consent form. The self-assessment tool formed part of a broader employability initiative. Students could use the tool and access associated supports such as resources and workshops without including their response in the research dataset. The study amassed responses from 2,374 first-year students who were studying full-time and aged between 17–21 years.

### **Analysis**

This was a largely quantitative study; however, open-ended text responses from the prompt '*Please tell us about your work and career until now*' were used to determine the work status of study respondents. Responses to the that question were analysed to create three different categories of the respondent students. The three work categories are defined as follows:

- (1) *Working:* students who reported that they were working at the time of the survey;
- (2) *Not working:* students who reported that they were not working at the time of the survey but had worked previously; and
- (3) *Never worked:* students who were not working at the time of the study and had no prior work experience.

Two researchers coded 200 cases (8.4%) against the three categories explained above as a pilot to assure that the coding was possible and the categories could be reasonably ascertained and the results were compared to ensure congruence and a high level of agreement was found. An issue arose in the pilot about how to code responses where students had responded that they were currently working but there was no information about whether they worked in the pre-arrival period. This was a limitation of the study which is noted that for those students currently working we could not be sure that they had worked before university arrival.

The remaining responses were coded by one researcher, with a second researcher coding a further 1% of cases selected at random to ensure congruence. The analysis concluded that 1,272 students (53.6%) were *working* at the time of the study, 1,025 students (46.4%) had previously worked but were *not working* at the time of the study and 77 students (3.2%) had *never worked*.

In order to thicken the understandings of how the students were positioning their responses to the open question '*Beyond your studies, what are you doing to prepare for graduate life and work?*' were analysed using textual analysis tools. Of the participants included, 2,366 submitted open text responses which yielded a total of 54,000 words. The text responses were securely loaded into NVivo and researchers produced weighted word cloud visualisations for each of the category groups. In the second substantive stage of qualitative analysis the open text questions were reviewed in the context of our research questions to notice particularly revealing or explanatory contributions from the students. One researcher conducted this close work and again a second researcher reviewed the analysis. As the close work was conducted in a spreadsheet style view it was easy for the second researcher to view the short-text response to the '*Beyond your studies . . .*' question and to highlight other important contributions to support understanding of the question.

To explore differences in the students' self-assessment scores across the three work categories, 't'-tests for means of independent samples were conducted (Salkind 2010). In addition, multivariate Ordinary Least Squares models were estimated. These models can be generally written as below, where Y is the respective employability tool outcome of interest, X is a vector of explanatory variables consisting of demographic and university characteristics, and Z denotes a vector comprising our explanatory variables on work status.

$$Y = \alpha + \beta_1 X + \beta_2 Z + \varepsilon$$

Next, we extracted student responses for the open question '*Beyond your studies, what are you doing to prepare for graduate life and work?*'. Data were first visualised using weighted word clouds which were created by removing filler words, removing numbers and combining stemmed words (e.g. work and working) for each of the three categories. Following Weber (1990), responses were then read in the context of each complete case to ensure that the original meaning was maintained. This process enabled the systematic, replicable compression of text and inspection of the data for recurrent instances (Wilkinson 2011).

Table 1 presents descriptive statistics of the full sample and also for samples stratified by work status. The 'not working' sample specifically excludes students who had 'never worked' to ensure

**Table 1.** Summary statistics of the study sample.

Variable (%)	Full sample	Working	Not working	Never worked
Male	40.6	40.6	40.5	39
Female	59.3	59.4	59.2	61
Other gender	0.1	0.0	0.3	0.0
International student	8.8	2.1	16.4	14.3
Age (years)	19.19	19.08	19.32	19.16
Studied off campus or mixed mode	5.6	6.8	4.3	2.6
Currently working	53.6	NA	NA	NA
Currently not working	43.2	NA	NA	NA
Never worked	3.2	NA	NA	NA
N	2,374	1,272	1,025	77

that there was no overlap between these two groups. Table 1 illustrates that just over half the sample were working at the time of the study and 46% of the sample were not working; only 3.2% of students reported never having worked. Note that demographics and other characteristics are similar across the three working categories considered here. The only variable which varied across the categories related to students who studied off campus or in a blended mode (both online and on campus), which was higher among the sample who were currently working.

## Results

Table 2 presents the mean scores for the full sample and the three work categories of *working*, *not working* and *never worked*. Students who were working reported higher confidence than students who were not working or had never worked. Further, students who were not working tended to report higher confidence than those who had never worked.

The only exceptions relate to students' digital and technological literacy, career commitment, perceived programme relevance and ethical literacy. Hence, the mean scores presented in Table 2 are indicative of a hierarchy, where students with current work experience outperform students who are not currently working, who in turn perform better than those with no work experience at all.

To further test the relationship between work status and employability perceptions, 't'-tests were conducted to examine whether there were statistically different means for various samples disaggregated by work status. The results presented in Table 3 indicate the difference in means across the sample, with asterisks denoting the level of statistical significance. Estimated mean differences are positive in sign except for one estimate in the *working-vs not working* sample in column (i) and two estimates for the *not working vs never worked* sample in column (iii).

The majority of estimates are also statistically significant. This reinforces the finding (see Table 2) that students who work perform better across all predictors compared to students who are currently not working, who in turn perform better than students who have never worked.

Results from the multivariate regression models are presented in Tables 4 (first set of six employability outcomes) and 5 (second set of five employability outcomes). Attention is first drawn to our variables of interest: those students who are not working and those who have never worked. Compared to the reference category of students who were working, we see that the estimated coefficients for *not working* and *never worked* are negative in sign relative to the benchmark group of those who are *working*, with the majority being statistically significant. Further, the estimated coefficients for those who had *never worked* tend to be larger than the estimates for those who are *not working*.

Table 2. Means of employability factors by work status.

Variable	Full	Working	Not working	Never worked
Discipline skills, knowledge & practices (1–6)	4.870	4.922	4.810	4.796
Communication Skill (1–6)	4.743	4.835	4.637	4.521
Digital and Technological Literacy (1–6)	4.890	4.942	4.830	4.909
Problem Solving and Decision Making (1–6)	4.566	4.626	4.497	4.487
Goal-directed Behaviour (1–6)	4.554	4.584	4.519	4.515
Career Commitment (1–5)	3.311	3.308	3.315	3.224
Self-efficacy (1–4)	2.183	2.234	2.125	2.039
Academic self-efficacy (1–7)	5.349	5.372	5.323	5.249
Ability and Willingness to Learn (1–6)	4.663	4.680	4.644	4.592
Perceived Program Relevance (1–5)	4.120	4.163	4.070	4.078
Career Exploration and Awareness (1–10)	6.930	7.007	6.841	6.708
Occupational Mobility (1–10)	6.386	6.424	6.341	5.919
Emotional Literacy (1–5)	3.501	3.531	3.467	3.354
Ethical Literacy (1–6)	5.112	5.211	4.997	5.035
N	2,374	1,272	1,025	77

Minimum and maximum range are indicated in parentheses.

**Table 3.** Estimated mean differences from 't'-tests of means across samples of work status.

Variable	Working versus not working	Working versus never worked	Not working versus never worked
	(i)	(ii)	(iii)
Self and Career Awareness	0.112***	0.076	0.015
Communication	0.199***	0.314***	0.124*
Digital and Technological Literacy	0.112***	0.033	-0.085
Problem Solving and Decision Making	0.128***	0.139**	0.011
Goal-directed Behaviour	0.065**	0.070	0.005
Career Commitment	-0.007	0.084	0.098*
Self-efficacy	0.109***	0.195***	0.092*
Academic self-efficacy	0.049*	0.123*	0.080
Ability and Willingness to Learn	0.036	0.088	0.056
Perceived Program Relevance	0.092***	0.085*	-0.008
Career Exploration and Awareness	0.167***	0.300**	0.143
Occupational Mobility	0.083	0.505***	0.454***
Emotional Literacy	0.065***	0.177***	0.121***
Ethical Literacy	0.214***	0.176***	-0.040
N	2,374	1,349	1,102

\*\*\*, \*\* and \* denote significance at the one, five and ten percent levels, respectively.

**Table 4.** Results from the first set of Ordinary Least Squares models of employability tool components.

Variables	Self and Career Awareness	Communication Skills	Digital and Technological Literacy	Problem Solving and Decision Making	Goal- directed Behaviour	Career Identity and Commitment
Female	0.109*** (3.701)	0.051* (1.867)	-0.124*** (-3.709)	0.003 (0.111)	0.104*** (3.252)	-0.011 (-0.439)
Other Gender	0.222 (0.596)	0.483*** (3.105)	0.268 (0.704)	0.278** (2.276)	-0.134 (-0.511)	0.014 (0.112)
International Student	0.107* (1.781)	0.011 (0.203)	-0.001 (-0.016)	0.162*** (2.711)	0.090 (1.522)	0.041 (0.931)
Studied off- campus	-0.055 (-0.786)	-0.067 (-1.010)	-0.044 (-0.566)	-0.086 (-1.260)	-0.101 (-1.465)	0.049 (0.914)
Not Working	-0.129*** (-4.182)	-0.194*** (-6.741)	-0.120*** (-3.384)	-0.154*** (-4.763)	-0.079** (-2.372)	0.009 (0.352)
Never Worked	-0.143* (-1.860)	-0.319*** (-4.070)	-0.032 (-0.320)	-0.162* (-1.911)	-0.086 (-0.971)	-0.087 (-1.385)
Constant	4.859*** (194.664)	4.809*** (202.302)	5.018*** (176.687)	4.626*** (170.482)	4.528*** (162.888)	3.310*** (149.506)
Observations	2,374	2,374	2,374	2,374	2,374	2,374
Adjusted R <sup>2</sup>	0.010	0.020	0.009	0.010	0.006	0.001

Robust t-statistics in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Again, this is indicative of a hierarchical relationship where students who are *not working* fare poorer across all employability constructs compared to students who are *working*, but outperform those who have *never worked*. Some of these estimates are of moderate magnitude. In their *Communication Skills*, for example, students who had *never worked* scored 0.32 points lower than students who were *working*, while students who were *not working* scored 0.2 points lower. These estimates are statistically significant at the one percent level.

A similar result can be seen in [Table 5](#) for confidence scores related to *Career Exploration and Awareness*, where students who were *not working* scored 0.19 points lower than students who were *working*, while the corresponding estimate for students who had *never worked* was 0.33 points lower. Students who had *never worked* scored 0.54 points lower for *Occupational Mobility* than those who were *working*. *Career Identity and Commitment* was the only construct where no statistically significant relationship with work status was found.



**Table 5.** Results from the second set of Ordinary Least Squares models of employability tool components.

Variables	Self- efficacy	Academic Self-efficacy	Perceived Program Relevance	Career Exploration and Awareness	Occupational Mobility	Emotional Literacy	Ethical Literacy
Female	-0.062*** (-3.006)	0.052 (1.474)	0.048** (2.236)	0.093* (1.649)	-0.125* (-1.906)	-0.058*** (-3.513)	0.154*** (5.275)
Other Gender	0.149 (0.479)	0.195 (1.197)	0.210* (1.749)	0.148 (0.257)	0.676*** (3.524)	0.427* (1.900)	0.936*** (11.033)
International Student	0.095*** (2.661)	0.137* (1.938)	0.025 (0.598)	0.185 (1.608)	0.243** (1.998)	0.036 (1.125)	0.024 (0.395)
Studied off-campus	0.008 (0.186)	-0.118 (-1.453)	-0.077 (-1.623)	-0.096 (-0.760)	-0.078 (-0.530)	-0.016 (-0.442)	-0.012 (-0.174)
Not working	-0.117*** (-5.511)	-0.067* (-1.814)	-0.099*** (-4.512)	-0.186*** (-3.147)	-0.091 (-1.312)	-0.063*** (-3.646)	-0.223*** (-7.067)
Never worked	-0.205*** (-3.198)	-0.146 (-1.330)	-0.092* (-1.683)	-0.328* (-1.931)	-0.536*** (-2.679)	-0.181*** (-3.951)	-0.182** (-2.305)
Constant	2.268*** (121.867)	5.346*** (171.530)	4.139*** (218.753)	6.955*** (140.352)	6.498*** (111.148)	3.566*** (243.913)	5.120*** (211.652)
Observations	2,374	2,374	2,374	2,374	2,374	2,374	2,374
Adjusted R <sup>2</sup>	0.017	0.003	0.009	0.005	0.004	0.015	0.034

Robust t-statistics in parentheses; \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1

There appears to be a gender divide net of work experience across these employability components, with females outperforming males in some constructs and the reverse in others. Specifically, females perform better in *Self and Career Awareness, Communication Skills, Goal-directed Behaviour, Perceived Programme Relevance, Emotional Literacy* and *Ethical Literacy*. Similar findings were observed for students who identified as a gender other than male or female. These students were estimated to have higher scores, compared to male students, in *Communication Skills, Problem Solving and Decision Making, Perceived Programme Relevance, Occupational Mobility, Emotional Literacy* and *Ethical Literacy*.

Finally, being an international student was associated with some statistically significant differences when compared with domestic students. International students outperformed domestic students in *Self and Career Awareness, Problem Solving and Decision Making, Self-Efficacy* and *Occupational Mobility*. Studying off-campus or online rather than on campus was not associated with any discernible effect.

**Beyond their studies, what are students doing to prepare for graduate life and work?**

Employability commentators exhort students to look beyond their degrees and become active participants in developing their ‘employability capitals’ (Tomlinson, 2017). To understand what the participating students were doing to prepare for employability, responses to the open question ‘Beyond your studies, what are you doing to prepare for graduate life and work?’ were analysed using the process described earlier. Of the 2,374 participants, 2,366 submitted open text responses and the responses yielded a total of 54,000 words.

The first stage of analysis produced weighted word cloud visualisations for each of the category groups as shown in Figure 1. Irrespective of the category of their previous work experience, the dominant response from students was the word ‘work’. Of interest, the extracurricular activities that are so crucial to gaining graduate work (Jackson and Bridgstock 2020) did not feature at all; however, the words ‘life’ and ‘experience’ were equally significant in all three categories.

It was notable and important to reflect that while our categorisations revealed that there were just under 50% of student respondents who were not or had never worked the idea of ‘work’ loomed large in the responses, while ‘career’ which also featured in the question text was less present. The focus on current work of the students became an important point in our



far more likely to use the word 'nothing', indicating that students with no work experience might be more likely than their peers to be relying solely on their studies to prepare for graduate life and work.

The aggregate word cloud for students who had worked but were currently *not working* drew our attention to several unique or dominant words, the most common of which was 'learn'. Shown in the quote below, students who were *not working* but had previously worked often referred to developing skills and knowledge beyond that which they might learn within their programmes, or to applying their discipline knowledge within a workplace. Responses limited to a student's discipline or major were more common among students who had never worked, as shown in the second quote.

Maybe find a part time job to gain some skills [I'm] not able to learn from university life alone. [Female student who was not working]

I am going to learn more about my major. [Male student who had never worked]

The word 'more' featured in all three work categories but it was most prominent within the *not working* group, for whom 'more' was often located within statements of intent such as a desire to gain 'more work experience' or to do 'more volunteering'. Students who were *not working* were also more likely than their peers to situate the word 'more' in relation to how such experiences might contribute to their future plans.

Students who had never worked were more likely to use the word 'more' in relation only to their studies, as seen in the previous quote. Students who had previously worked or were currently working were more likely to respond with statements which linked their studies with broader professional learning: for example,

gain more experience by working a part time job and make use of what I have learned from my major. [Female student who was working]

The final point to note from the broad visualisation of data relates to 'time' and we emphasise that many students indicated their intention to undertake significant work commitments outside of their studies. Students who were *working* at the time of the study were the only cohort for which 'time' featured prominently. In many cases this referred to time pressures among students who were managing the demands of both work and study (Creed, French, and Hood 2015), as seen in the first example below. However, some working students mentioned time in relation to becoming independent, as seen in the second quote.

Compromising between work life and study load and making sure to graduate on time. [Female student who was working]

... living independently for a period of time to build confidence in being self sufficient. [Male student who was working]

In line with the previous quote and shown below, a significant number of students noted that their higher education studies and related employability work were contemporaneous with their self-discovery of adulthood and becoming a university student.

trying to gain more life skills.] such as improving my communication skills. [Male student who had never worked]

Living by myself with friends with the help of my parents to ensure I can independently live and work and stand on my own feet when I graduate. [Male student who was working]

Networking through clubs and integrating into different friend groups, as well as applying for internships and student programs. [Male student who was working]

Again emphasising the investment that many first-year students need to make in becoming an adult and living independently for the first time (Brouwer et al. 2016), some students focussed solely on the development of life skills and a healthy lifestyle. Arguably, it is easy to forget the impact of these efforts on students, especially in the first year of their studies.

Keeping physically active and learning to manage my studies, sports and work with each other which I think will prepare me for graduate life. [Male student who was working]

Working towards a healthier lifestyle. [Female student who was not working]

Learning other tools such as cooking and networking. [Male student who was working]

In summary, analysis of the open text data revealed a range of strategic and haphazard approaches to the development of employability. There were very few neutral comments; rather, students tended to be strongly negative about what they were doing to develop themselves (e.g. 'absolutely nothing') or, as seen above, they were highly engaged in learning, life and career development.

## Discussion

Our analysis suggests that students who are *working* during their studies might be more confident across all employability constructs than students who are *not working*; in turn, students who are *not working* might express greater confidence than students who have *never worked*. In one respect this is surprising, because students who work are more likely to be able to benchmark their abilities in relation to others and are therefore more likely to have reached the stage of being consciously incompetent; in other words, students who have encountered work are more likely to recognise what they do not know.

It is possible that their greater awareness of the demands of a workplace played a part in the emphasis on learning expressed by students who were not working but had previously worked. Whilst students who have worked might be consciously incompetent, they might be able to draw on that experience to identify and address the learning they require. From an SCCT perspective (Lent, Brown, and Hackett 1994), these learners have rehearsed their construction of self and career in both social and vocational settings. They have employed their job crafting skills (Creed, Hood, and Hu 2019) to impose meaning on their career behaviours and their confidence has been enhanced by identifying both strengths and areas in need of development. However, these benefits might come at a cost. Students who were working at the time of the study were the only cohort for which 'time' featured prominently. Analysis of students' text-based responses confirms that these comments referred largely to time pressures among students who were struggling to meet the demands of both work and study.

As stated, the impact of work experience prior to university has been little investigated. This study found a significant relationship between working or having worked prior to university and students' perceived employability confidence. Moreover, the developmental strategies of students with work experience tended to be far more sophisticated than those of students who had never worked. It follows that while support for work-integrated learning is important, students' part time, casual or vacation work is complementary to the student experience and could be far better leveraged to enable its use in preparing students for graduate life and work. The work status of students might also demand differentiated learning interventions: for example, students who have no experience of work might need differentiated support in order to gain confidence and experience and to ascertain the relevance of their learning experiences.

There is no doubt that concurrent work and study can help higher education students to develop their generic skills (Curtis and Shani 2010, Jackson 2013), domain skills and knowledge (Knight and Yorke 2004) and academic comprehension (Paisey and Paisey 2019). The importance of professional experience has long been emphasised in graduate employability discussions and has contributed substantially to understanding how students might position themselves for graduate life and work (see hidden; Jackson 2013, 2015). Despite this, students' paid work, much of which is low-skilled and fairly mundane, is rarely discussed or leveraged in a way that could help them to realise its benefits. The impact of paid work could be heightened by helping students to realise the relevance of this work to their graduate futures. An obvious point of connection is to establish the relevance of

students' paid work to the work-integrated learning (WIL) opportunities through which students create discipline-specific meaning, develop their agency and establish the worth of their educational efforts (Billett 2015; Paisey and Paisey 2019). There is also enormous untapped potential for the learning and experience of both paid and unpaid work to be integrated into portfolios of evidence which are built across the student lifecycle.

### Limitations and future research directions

Our study explored the relationship between perceived employability and pre-entry work through an online student self-assessment of perceived employability. We begin by acknowledging the study's limitations. First, our sample was derived from a single Australian university. Whilst the university has a diverse student population and several onshore and offshore location, we do not seek to claim that the findings are generally representative of the entire higher education student cohort. Second, we note that only 3.2% of students in the sample had *never worked*. These students were more likely than their peers to indicate that they were doing nothing beyond their studies to prepare themselves for graduate life and work. However, doing 'nothing' might be a matter of limited access or time due to study and other (for example, familial) commitments (Mallman and Lee 2017). As such, this cohort merits more attention and we do not seek to generalise.

Recent estimates on the work experience of direct entry Australian university students were not readily available, hence no direct comparisons could be made. Anlezark and Lim (2011) estimate, however, that up to 60% of school students have worked during their schooling years and they note that the proportion of school students who combine work and study has steadily increased. It is likely therefore that students who have no work experience by the time they commence university study are in the minority. More research is needed in order to establish the proportion of students who work prior to university and the types of work in which they engage. We note also that our study targeted incoming (first-year) students. It will be some years before we know how incoming student confidence changes across the student lifecycle and into career, and the extent to which confidence and work relate to other indicators such as academic performance.

Creed, French, and Hood (2015) report that work leads to decreased academic engagement and poorer levels of well-being. The relationship between taking work as a choice or a necessity, and whether this distinction impacts students' perceived employability across the student lifecycle, is not yet clear and deserves further attention (Owen, Kavanagh, and Dollard 2018). Similarly, future studies might also distinguish between students who work full time rather than part-time hours. Although it was beyond the scope of this article to focus more attention on gender or the differences between international and domestic students, we note that there was a gender divide net of work experience, with females outperforming males in some constructs and the reverse in others. Similarly, international students outperformed domestic students in several constructs (see also Nguyen 2019).

Our sample was restricted to full-time students, of whom the majority were working and almost all had some work experience. Work was more common among students studying remotely, possibly because blended and online study modes are more easily accommodated within an existing work schedule. There were similar proportions of students in each work category by gender and age; however, socio-economic status was not available to the research team and would be a valuable inclusion in future studies.

### Conclusion

Our research built on Hall's study (Hall 2010), which focussed on the experiences of full-time university students who were working on a part-time basis. We assessed the impact of both current work and prior work experience on students' confidence in relation to multiple employability constructs. In line with Creed, Hood, and Hu (2019), students' engagement with work appeared to enhance students' confidence in their job crafting skills; this confidence was evidenced across the

range of employability constructs. However, the results should be read with caution. As Creed, French, and Hood (2015) assert, the impact of work among university students is influenced by benefits such as resources, rewards and involvement, enhanced wellbeing and stronger engagement, but only in cases where the work featured lower levels of task demand and higher psychological rewards. Hordósy, Clark, and Vickers (2018) warn that there is a potential 'double deficit' for students who are forced for financial reasons to undertake part-time work which impinges on their studies.

A reading of the literature might conclude that not working during study, either in paid work or in WIL opportunities, limits students' ability to develop job crafting skills and position themselves for the graduate labour market. In line with Creed et al., we suggest that the picture is more complex. Critical factors include whether work is undertaken through choice or necessity, whether the demands of work outweigh its psychological benefits and/or impinge on study time, and whether work is perceived as beneficial or relevant to the learner's studies. A question for future research is whether the benefits of concurrent work and study elicited within the literature are limited to concurrent work and study or whether, as suggested by this study, the benefits extend to pre-entry work. If this is the case, the extent to which pre-entry work experience might play an important role in students' academic journey warrants urgent attention.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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