Opportunities to identify and develop people skills: What university students need early in their degree journey

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Abstract

Employability skills can be categorised as 'people' or 'soft skills' and 'technical' or 'industry specific' skills. Australian employers are increasingly seeking to employ university graduates with well-developed people skills. Evidence from industry suggests these skills, in particular communication skills are lacking in today's graduates. The aim of this study was to raise student awareness of the importance of people skills, assess their perception of personal competence across a range of these skills and support them to develop plans that will help them strengthen these skills in preparation for graduation. An online survey was emailed to 222 first year undergraduate students; 99 were completed. Analysis of quantitative data revealed students perceived themselves to be highly competent across a range of people skills. However, qualitative data found students also identified people skills that they needed to develop further. The study findings suggest that first-year students may have inflated and unrealistic perceptions of their people skills and highlights the importance of the introduction of these employability skills early in the curriculum. Recommendations from this study include the introduction of curriculum activities in the first year of their degree that raise student awareness of industry expectations of people skills upon graduation. The implementation of a people skills self-assessment tool for these students is also recommended as a benchmarking activity. Use of this tool can motivate students to engage with university support and industry opportunities that further strengthen these important skills.

Introduction

Definitions and discipline-specific frameworks vary in the way they describe student employability skills (Griffin & Coelhoso, 2019; Römgens et al., 2020). This includes the use of the terms 'people skills' and 'soft skills' to describe a student's personal attributes, which are separate to, but complement 'hard skills', or the technical requirements for a job (Suneela, 2014). Although the term 'soft skills' is commonly used in the student employability literature (Gruzdev et al., 2018; Succi & Canovi, 2020), concerns among industry and academic leaders that the term is a misnomer that

undermines the importance of these skills and the ease in which they are acquired merits the use of the alternative term 'people skills' (Levinson, 2020). For the purpose of this article, student employability skills are regarded as a combination of discipline-related technical skills, including data analysis and clinical, and people skills, including emotional intelligence and leadership (Pennington & Stanford, 2019).

Australian employers of university graduates are increasingly recognising and prioritising the importance of people skills over technical skills (Pennington & Stanford, 2019). A crucial strength of people skills is their transferability between industries and occupations (Directorate-General for Employment Social Affairs and Inclusion (European Commission), 2011). In the health sector important people skills include communication, information communication and technology, work psychology, teamwork, interpersonal skills, critical thinking and problem solving, self-management, planning and organising, conceptual and analytical skills, global citizenship, and professional ethical practice (Deloitte Access Economics, 2017; Sisodia & Agarwal, 2017).

Communication skills, including positive relationships within the workplace and with clients, is considered an essential people skill (Deloitte Access Economics, 2017). Within the broad scope of communication, sit oral and written skills, the ability to respond to non-verbal cues and active listening (Sisodia & Agarwal, 2017). Information Communication and Technology (ICT) skills are also considered critical, especially Microsoft Office, email and the internet (Sisodia & Agarwal, 2017); educators cannot assume that students have these skills (Sánchez-Caballé et al., 2020). An increased demand for digital literacy in cloud based tools including social media and collaborative based tools is also evident (Al-Samarraie & Saeed, 2018), as is the expectation of data set management skills (Department of Jobs and Small Business, 2019).

Essential communication skills in the health sector are informed by its diverse nature and its propensity to expose its employees to a myriad of cultures and life situations. This complex and dynamic environment calls for high levels of professionalism, the ability to self-regulate work-life balance, and strong ethical foundations. Employees need to demonstrate cultural awareness, punctuality, conflict management, loyalty and integrity towards the organisation and their colleagues (Sisodia & Agarwal, 2017). Health sector employers are also looking for well-developed skills in teamwork, critical thinking, problem solving, self-management, planning and organising, conceptual and analytical, and interpersonal skills (Abbasi Farhad et al., 2018).

The growing importance of 'people skills' is highlighted in the Deloitte report 'Soft Skills for Business Success' (Deloitte Access Economics, 2017), which has forecasted that by 2030, two-thirds of all jobs will be people-skill intensive, with these occupations expected to grow at 2.5 times the rate of other occupations (Deloitte Access Economics, 2017). This is supported by Pennington and Stanford (2019), who suggest these skills are the most valuable to a workforce as they build resilience to the dynamic and fluid nature of employment, technology, and workplace relationships. In the ever-changing work environment, an ability to transfer people skills to new situations increasingly underpins graduate employability. According to Hill et al. (2020), activities that identify these transferable people skills in the classroom setting supported the student's understanding of their relevance and value to future career progression.

Evidence from graduate-entry level employers in Australia suggests these skills are lacking in some graduates, with communication skills a significant area of concern (Deloitte Access Economics, 2017). The Australian Productivity Commission (Productivity Commission, n.d.), has gone so far as to link declining national employment outcomes with this deficit in people skills, and with higher education's current preoccupation with research. The Commission recommends universities increase their efforts to promote employability skill development with their students through targeted high-quality teaching. The key people skills that require development include critical thinking, decision making, conflict resolution and meta-cognition (the willingness and ability to self-reflect) (Jackson & Chapman, 2012).

The purpose of this study was to raise first year student awareness of the importance of people skills and to assess their own level of competence across these skills. In highlighting the importance of 'people skills' early in the career journey, and signposting students to relevant university support services, the initiative aimed to facilitate students to seek and participate in activities that could further develop these skills and hence increase their employability readiness at graduation.

Methods

Invited participants in this study were first year undergraduate students (n=222) at a Western Australian University, enrolled in one of three units taught across the School of Medical and Health Science and the School of Science. The study was approved by the University Human Research Ethics Committee (HREC), #21965.

Data collection instrument

The data collection instrument in this study was an online version of a paper-based tool, 'The Employability Skills Cluster Matrix Self-Assessment Tool' [ESCM-SAT], which had been used and evaluated with third year university students (Sambell et al., 2020). It was developed from core principles referenced in industry literature and evident in four well recognised tools including, Employability Skills Self-Assessment Tool (RTI International, 2015), The New Work Mindset (The Foundation for Young Australians (FYA), 2017), Core Skills Development Framework (Department of Industry Innovation Climate Change Science Research and Tertiary Education [DIICSRTE] et al., 2013), and Career Development Learning and Employability (Watts, 2006). The tool was adapted for use with a first-year tertiary student cohort and named 'ESCMfirst'. Consultation with teaching and learning content experts confirmed the relevance of this adapted tool's use to measure employability skills and associated clusters with first year tertiary students (Sambell et al., 2020). This tool was initially developed to collect quantitative survey and open-ended responses and to guide self-directed learning across a diverse range of employability skills. No such tool was previously available (Sambell et al., 2020).

The ESCMfirst was piloted with first-year students, and minor adjustments made prior to use in this study. Adjustments were made based on feedback from students and from content experts within the university. This primarily concerned the detail in some of the sub elements of a tool which were deemed unnecessary for first year students. The main cluster elements were retained, and the sub elements simplified. An accompanying training module for students was developed to support student engagement with this tool. This module included instructional videos provided online or embedded in classroom discussions, to support the completion of the online survey via Qualtrics in week 2-3 of a 13-week semester (Qualtrics, 2013).
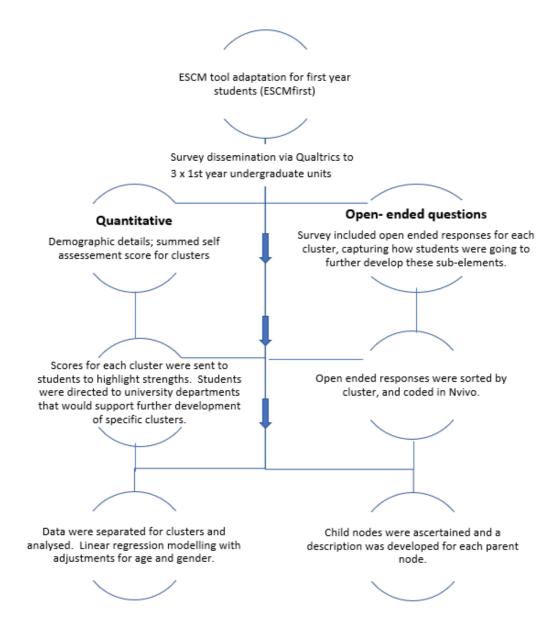
ESCM tool adaptation for first year students (ESCMfirst)

Survey dissemination via Qualtrics to 3 x 1st year undergraduate units

Quantitative

Demographic details; summed self assessement score for clusters

Scores for each cluster were sent to students to highlight strengths. Students were directed to university departments that would support further development of specific clusters.

Data were separated for clusters and analysed. Linear regression modelling with adjustments for age and gender.

Open- ended questions

Survey included open ended responses for each cluster, capturing how students were going to further develop these sub-elements.

Open ended responses were sorted by cluster, and coded in Nvivo.

Child nodes were ascertained and a description was developed for each parent node.

Figure 1: Process for Data Collection

Figure 1 outlines the process of data collection, signposting of students to self-directed development opportunities and data analysis. The survey contained questions relating to student demographics and questions that asked students to score themselves on 15 elements within five core clusters. The five core skill clusters were Communication; Interpersonal; Career Management; Self-management; and Academic (Figure 2). These core cluster areas were adapted from four key documents in previous research by Sambell et al. (2020) which were based on key industry documents and well recognised employability principles (Department of Industry Innovation Climate Change Science Research and Tertiary Education [DIICSRTE] et al., 2013; RTI International, 2015; The Foundation for Young Australians (FYA), 2017; Watts, 2006). Within these cluster areas students rated themselves against these 15 elements using a Likert Scale, 1 (low proficiency) to 5 (high proficiency). Scores for each element were summed to provide a cluster area score and an overall total ESCMfirst score out of a possible 75. An email trigger allowed the sum of each score to be sent to students, with recommendations of university resources that could support further development of each cluster area.

This instrument also asked students to provide a text response that identified strategies and actions that could support skills that required further development.
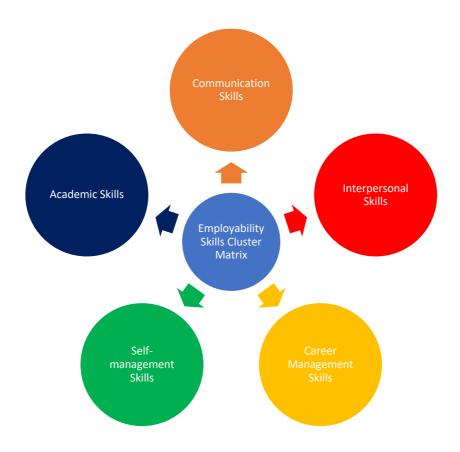

Figure 2: Employability Skills Cluster Matrix (ESCM) Clusters

Skills clusters and elements

The *Communication Skills Cluster* was described as the ability to source and share information through meaningful interactions. Students rated *four* elements: written, oral, listening, and digital literacy communication skills, and provided text responses of strategies to improve their own communication skills.

The Interpersonal Skills Cluster was described as effective interaction with other people, both individually and in groups, and included a self-rating of *three* elements: emotional intelligence, teamwork, and leadership. Students provided text responses of strategies to improve their interpersonal skills.

The *Career Management Skills Cluster* was described as the ability to research employment opportunities, and to identify, record, reflect upon an articulate the personal attributes, knowledge and qualifications required secure suitable employment. Self-ranking of *two* elements: 1. understanding and developing self, and exploring life, and 2. learning and work, was undertaken. Students also provided text responses of strategies to improve their career management skills.

The *Self-Management Skills Cluster* was described as the ability to take responsibility and maintain motivation to keep on task, evaluate personal performance and set goals for personal achievements. Students ranked *three* elements: planning and organising, initiative, and adaptability, and provided text responses of strategies to improve their self-management skills.

The *Academic Skills Cluster* was described as ways to become a more effective learner and succeed in academic pursuits and future career aspirations. *Three* elements: research, analytical, and problem-solving skills were ranked, and students provided text responses of strategies to improve their academic skills.

These clusters bring together key components of previously published employability skills measurement tools and provide the opportunity for student self-reflection (Sambell et al., 2020).

Data collection

Electronic consent was required to initiate the online survey. A staff guide, student 'frequently asked questions' document, and video were created to guide survey completion and an understanding of the ESCMfirst tool. The survey link was sent through the Qualtrics email distribution channel of the three first year units in which the students were enrolled. The survey was distributed prior to the commencement of any student work experience/internship. Each survey had an email trigger that ensured students received an email summary of their responses, and information on skill development support within the university. Students were also prompted to download their responses in PDF format and retain this for future reference.

Quantitative data analysis

Student self-assessed proficiency scores for each element were summed to provide a cluster area score and an overall total ESCMfirst Score, with a possible maximum score of 75. Linear regression was initially used to generate age and gender adjusted scores for each element, cluster area, and the total score. Due to their non-parametric nature, these adjusted scores were then compared by unit using the Kruskal-Wallis test (McDonald, 2014).

Analysis of open-ended text responses

Text responses were organised according to cluster area, and imported into NVivo 12 (QSR International Pty Ltd, 2018), in Microsoft Excel format. Themes were developed within each cluster area from the process of open coding of text responses, followed by the process of code consolidation as appropriate. The process involved the repeated revisiting of the original text data to ensure codes offered authentic representation. One researcher completed the initial coding of data, with consensus of emerging themes reached in collaboration with the other researchers.

Findings

Of the 222 first-year students contacted, 99 completed the online ESCMfirst survey. The student mean age was 23 ±7 years, 71% were female.

Student self-assessment of clusters

Table 1 reports the median and IQR for each of the 15 elements embedded in the five cluster areas (each element could score a maximum of 5), the cluster area scores, and total ESCMfirst score for each unit. The median total ESCMfirst score was 60 (IQR 10) points from a possible 75 points (Table 1); scores ranged from 41 to 74. Most students scored themselves towards the high end of the Likert scale (1 to 5) across each element, with all median cluster area scores at 80% or above. The total score, cluster and element scores did not differ after adjustment for age or gender.

There was no statistical significance in student scores across the three units of study where $p = <0.5$, (Table 1.) therefore unit findings data were aggregated.

Sambell, R., Andrew, L., Devine, A., Darby, J. Beatty, S. and Godrich, S. (2021). Opportunities to identify and develop people skills: What University Students need early in their degree journey. *Journal of Teaching and Learning for Graduate Employability, 12(*2), 348-365.   353

Table 1: Employability Skills Matrix: Total score, cluster area, and element scores for first year students overall and across three different Level 1 units.

CONSTRUCT	Overall (n=99) Median± IQR		Unit 1 (n=49) Median± IQR		unit 2 (n=15) Median± IQR		unit 3 (n=35) Median± IQR		Kruskal-Wallis H Significance
TOTAL SCORE (75)	60	10	59	12	62	13	61	9	0.827
COMMUNICATION SKILLS (20)	16	3	16	3	16	2	16	2	0.886
Written	4	1	4	1	4	0	4	0	0.659
Oral	4	2	4	2	4	1	4	1	0.838
Listening	5	1	5	1	4	1	5	1	0.942
Digital literacy	4	1	4	1	4	2	4	1	0.919
INTERPERSONAL SKILLS (15)	12	3	12	2	12	4	13	2	0.979
Emotional intelligence	4	1	4	2	4	2	4	1	0.075
Teamwork	4	1	4	1	4	1	5	1	0.941
Leadership	4	1	4	1.5	4	1	4	1	0.951
CAREER MANAGEMENT (10)	8	2	8	2	8	2	8	2	0.992
Understanding and developing self	4	1	4	2	4	1	4	1	0.392
Exploring life, learning and work	4	2	4	2	4	2	4	0	0.974
SELF-MANAGEMENT SKILLS (15)	12	3	12	3	12	3	13	2	0.987
Planning and organising	4	1	4	1	4	1	4	1	0.205
Initiative	4	1	4	1	5	1	4	1	0.361
Adaptability	4	2	4	2	4	1	4	1	0.154
ACADEMIC SKILLS (15)	12	3	12	3.5	12	2	12	3	0.999
Research	4	1	4	1	4	2	4	1	0.491
Analytical	4	1	4	2	4	2	4	1	0.649
Problem solving	4	1	4	1	4	1	4	1	0.988

Open ended text responses

Open text questions within the survey were used to explore the strategies students felt would improve their people skills within each cluster. A summary of these findings is provided under each cluster in the following paragraphs, illustrated with student quotes.

Communication skills cluster

Overall, students articulated that they aspired to enhance a variety of communication skills, including digital, oral, and written. Most students saw workshop attendance as a suitable strategy to build these skills.

Improving written skills

Students indicated they would read a variety of books, not limited to their academic textbooks, to increase their understanding of sentence structure. Students also mentioned they would research writing styles online. To upskill in academic writing, referencing vocabulary expansion, students suggested they would participate in university workshops and would seek feedback from academic staff in class and in assessment work:

> I could improve my skills by attending workshops that are specific to writing and formatting. This would improve my writing because it would be presented in a better fashion (Student 44).

Enhancing oral communication skills

Students described how they could improve their oral communication skills through participation in group discussions, voicing ideas in class, developing their confidence, and having

> ... enough courage to state (their) opinion (Student 12).

Students reported they would enrol in units that required them to present their work to other students and staff. They also proposed self-directed researching of effective communication methods and attending oral communication skill development workshops.

Improving listening skills

It was common for students to report that their listening skills were adequate and did not require improvement. Where the need for improvement was identified, greater attention in class was regarded as an important strategy. Students also suggested they participate more in class, answer more questions, and contribute more to group debates:

> I could take time to hear ideas and opinions from others and combine them with mine to find the best beneficial result for the group (Student 45).

Improving digital literacy

Students reflected on their need to undertake professional development to increase their digital literacy and proficiency. Strategies mentioned to improve digital literacy included increased exposure to a variety of programs and software. Workshops, courses, and joining online clubs were also suggested, and guidance and support from university sources was considered valuable:

> Asking my friends, asking my lecturer, visit the website and research sites provided by my university or universally trusted and known (Student 48).

Students also aspired to increase their skills in sourcing and interpreting data through repeated practice.

Interpersonal skills cluster

Students' perceptions of their own interpersonal skills were mixed. They provided a range of suggestions were made to develop leadership skills, emotional intelligence, and teamwork skills.

Improving leadership skills

Some students perceived they had strong team leadership attributes:

> *I like to think that I've learned all that I can about leadership by being a team leader in my workplace … I'm a fairly good leader in my experience* (Student 6).

Others reported they lacked the confidence or experience in leadership, especially the skills required to lead teams:

> *I've always been more of a follower than a leader, however, I would like to develop my ability to take action and initiative in certain situations* (Student 85).

Suggestions to improve leadership skills included joining clubs, participating in university events, volunteering, developing more patience, being proactive and showing initiative.

Improving emotional intelligence

Carefully listening to peers' contributions and considering others' point of view were student suggestions to enhance their own emotional intelligence. Several commented that building a connection and relationships with colleagues and peers would be a useful approach, while others thought reading more about the subject could improve their emotional intelligence. One student suggested:

> *I could observe how I react to people and by examining how my actions can affect others* (Student 92).

As with listening skills, many students believed they already possessed a high level of emotional intelligence and therefore did not need to invest in self-improvement in this area.

Enhancing teamwork skills

Students used phrases such as "being confident", "trust in others to get jobs done" and "keeping an open mindset" to describe how their teamwork skills could be improved. Students also described more altruistic approaches:

> *By listening to others, giving your opinion and helping each other, even if it's not necessarily your responsibility* (Student 3).

Again, the idea of ongoing practice to develop these skills was commonly cited.

Career management skills cluster

This cluster assessed the student's ability to initiate research into employment options and prompted their reflection on their career goals and ways to achieve them.

Understanding and developing self

Students stated that they planned to request constructive feedback from others and make greater efforts to focus on their own strengths and weaknesses. Specific strategies included seeking guidance from a university careers counsellor or sourcing a mentor. Self-directed plans included keeping a reflective diary or attending a retreat. One student suggested:

> *Do things by yourself, things that are out of your comfort zone to get to know yourself more* (Student 10).

Exploring life, learning and work

Some students aspired to improve their time management skills by developing practical strategies that could help them organise and prioritise their time. Respondents also suggested breaking down goals into manageable chunks, setting short and long-term goals, attending workshops, and gaining work experience. Several students were uncertain or undecided about their future career:

[I need to] *figure out how I would like my career to progress* (Student 78).

While some were confident in their own skills, direction, and experience, many still needed support in goal setting:

I need to develop a plan of my goals and where I see my career taking me, however it is hard to think about [it] so soon into learning (Student 1).

Of all the clusters, career management appeared the most difficult for students to conceptualise and reflect upon. This is not surprising in this study of first year students, who are navigating multiple aspects of university life and who have limited real-world exposure to career opportunities associated with their field of study.

Self-management skills cluster

The elements within this cluster gathered insight into the student's perception of the self-directed activities they possessed, and those they needed to pursue further, to enhance their employability.

Planning and organising

The essence of students' responses related to improving self-organisation, working more effectively, and improved time management. Specific strategies frequently mentioned included learning from others who role-modelled strong self-management skills, listing goals and making a schedule of their tasks. Some students reported they had little trouble creating plans, but had difficulty acting on them, with one student aspiring to:

Follow through with plans more effectively/adhering more strictly to plans that I have set (Student 24).

Initiative

Gaining confidence was the most common reference under this element, with one student commenting they needed to "push" themselves by placing themselves in new situations and seeking help from experts, such as counsellors. Others reported confidence in their ability to take initiative:

I'm confident in my ability to think outside-of-the-box and know when and where taking action is necessary (Student 15).

Adaptability

Students described how new situations and uncertainty could be stressful and lead to poor functioning:

Once I get flustered things tend to breakdown (Student 19).

Students' suggestions to improve their adaptability to change included intentionally placing themselves in situations where they could build resilience. Some students perceived a need to be more open-minded to change and find ways to reduce their stress levels in new situations.

Academic skills cluster

Students come to university with varied exposure and experience to research, analytical, and problem solving skills, which are all considered vital academic skills (Munn, 2016). This cluster explored first-year student participants' perceptions of their academic skills, and their reflections on ways to improve.

Research skills

The need to improve data gathering skills across a wider range of sources, as well as data interpretation skills were commonly mentioned. Similar to other cluster areas, some students suggested undertaking more individual skill-building strategies such as to *read up on how to*

understand data and gather information (Student 5), while others endeavoured to consult with university support services such as library and academic workshops. Students were clear about the importance of this area of skill development:

> *I need to have clear direction and help with this skill as I am a mature age student and am unfamiliar with research on an academic level* (Student 44).

Analytical skills

Online videos and texts were considered valuable resources to support analytical skills. Workshops, mentors, and peers were also important. The importance of repeated practice was also discussed:

> *By practicing [sic] more in relation to scientific research and data and understanding [distinguishing] "bad" science from the trustworthy data and research* (Student 3).

Students frequently referred to "breaking down" information as a strategy to improve how to better understand data in their own terms.

Problem-solving skills

As with many of the previous findings, methods to improve problem solving skills ranged from individual approaches such as studying, to seeking expert sources of support. Students aspired to improve their own problem-solving skills through logical thinking exercises and taking the time to consider new ways to solve presenting problems. Practice and collaboration with others were commonly perceived as methods to develop problem-solving skills:

> *I could practice [sic] and have other people give me their opinions and ideas on the topic to give me perspective and open my mind to thought processes I might not have thought about* (Student 27)

Several students referred to being more creative, or visualising problems through mind maps.

Table 2 highlights the five clusters and their elements. It summarises students' ideas around what skills they needed to achieve, and how to do this - through self-directed work or external support.

Table 2: Elements and Strategies.

Cluster and elements	Strategies
Communication skills	
Written	Participate in university workshops
	Read more widely
	Research writing techniques online
Oral	Participate in class group discussion
	Choose units with oral presentations
	Complete online and university workshops
Listening	Contribute to class debate
	Answer questions in class
	Pay more attention to others in class
Digital literacy	Increase familiarity with a range of software
	Complete workshops and online courses
	Seek university expert support
	Practice sourcing evidence
Interpersonal skills	
Emotional intelligence	Build connections with peers
	Research the topic of emotional intelligence
	Consider others' points of view

Teamwork	Be confident in teams
	Trust team mates to perform
	Be open-minded
Leadership	Practice taking initiative and lead in class
	Join social groups and university clubs
	Volunteer
Career management	
Understanding ad developing self	Seek constructive feedback
	Focus on personal strengths and weaknesses
	Seek career advisor support
	Keep a reflective diary
	Participate in activities outside comfort zone
Exploring life, learning and work	Develop time-management
	Set personal goals
	Gain industry experience
Self-management skills	
Planning and organising	Learn from role models
	Schedule tasks
	Act on plans
Initiative	Gain confidence
	Push self to take initiative
Adaptability	Try out unfamiliar situations
	Manage stress levels
	Be more open-minded to change
Academic skills	
Research	Improve data gathering and interpreting
	Consult with library services
	Participate in academic workshop
Analytical	Learn to break down information
	Seek online support
	Repeated practice
	Support from peers, mentors, and workshops
Problem solving	Complete logical thinking exercises
	Think in new ways
	Collaborate with others
	Practice

Discussion and recommendations

There is strong evidence that the future employment market will prioritise well-developed people skills as an employee prerequisite (García-Pérez et al., 2021; The Foundation for Young Australians (FYA), 2016; World Economic Forum, 2020) with the demonstration of discipline specific skills no longer sufficient to secure employment (Jassal & Clark, 2016). This initiative highlighted the importance of people skills early in the career journey, and signposted students to relevant university support services. In doing so, this initiative aimed to prompt and facilitate students to seek and participate in activities that could further develop these skills, and hence increase their employability at graduation.

Student confidence and implications

Industry reports suggest that today's graduates enter the marketplace with underdeveloped people skills, and little has changed in the last decade (Deloitte Access Economics, 2017; Jackson & Chapman, 2012; Productivity Commission, n.d.). In contrast, the first-year undergraduates in this study had a high level of confidence across every assessed skills cluster. Although confidence can be a key prerequisite to student engagement in their learning (Bandura, 1995), it is important to ask is this confidence a true reflection of the students' abilities, or a situation of confidence over competence? This finding reflects a previous study, in this case with Australian business undergraduate students, who were described as displaying 'inflated' self-ratings of competence in three categories of people skills (Jackson, 2012). In this study, the phenomenon was attributed in part to the high proportion of 'Y generation' students (born between 1982 and 2005) in their sample, referring to the literature that suggests these students have an unrealistic level of confidence and demonstrated a level of arrogance in their expectations of their employers and employment on graduation (see Gawrycka et al. (2020)).

In the present study, most students could be categorised as Y-generation. The potential for over-confidence is a particular concern with these students who are preparing to enter the health workforce where their decisions can have a significant impact on the health and safety of others in their care. Evidence suggests the overconfident individual is less likely to reflect, seek personal development or demonstrate willingness to change (McEachan et al., 2016; Montaño & Kasprzyk, 2015). Such reflection and humility is an essential attribute of the safe practitioner (Hayes et al., 2018). The findings of the present study suggest this confidence is an issue that requires the priority attention of university tutors.

To this end, Andrade (2019) argues that research on student employability skills self-assessment includes ongoing evaluation across the degree journey, so that ongoing meaningful self-reflection on changing perspectives and personal development can be captured and utilised. Also of relevance is the work of Ibarra-Sáiz et al. (2020) who reviewed the causal relationship between self-regulation and peer assessment, concluding peer-feedback was a key element to improving a student's competence.

The high student self-assessment in the study may be explained by the fact that undergraduate students early in their degree have had limited opportunity to benchmark their own employability skill perceptions against the expectations of industry (Bruce & Hamp-Lyons, 2015; Mattern et al., 2015; McNair et al., 2016; Wilson et al., 2016). In simple terms, students don't know what they don't know. International students, who are less likely to have had any experience in the Australian workforce before they begin their university degree may have especially unrealistic perceptions of their abilities (Green et al., 2020; Terpstra-Tong & Ahmad, 2018). This idea is further supported by research previously conducted by the authors, that found third year students were more inclined to rank themselves lower on employability skill elements, inferring they had developed an awareness of employability skills expectations during their degree and therefore had a more realistic perception of their own skills (Sambell et al., 2020).

The identification of this potential 'over-confidence' is important early in the student's university career so that action can begin to address it. This study adds to the body of evidence that proposes some form of accessible industry engagement is paramount to the future employability of undergraduate students (Andrew, 2020; Bruce & Hamp-Lyons, 2015; Mattern et al., 2015; McNair et al., 2016; Wilson et al., 2016). A realistic picture of the workplace and early career roles and duties can be introduced into the curriculum through virtual and face-to-face immersion in workplace scenarios and conversations with potential employers. Scott et al. (2019) however, argue that the effectiveness of such strategies depends on their contextualisation to the student discipline and intended career pathway. Gribble (2015) recommends field trips to industry sites and guest lecturers to emphasise the importance of people skills. Ongoing collaboration between industry, the

university, its academics and students to determine contemporary, emerging and predicted future workforce skills requirements is also important (Ishengoma & Vaaland, 2016). Activities that develop the student's understanding of the expected level of competence of these skills and their transferability into different contexts are also needed (Gill, 2018).

Previous research has indicated a poor level of first and second year student engagement in employability skill development activities (Tymon, 2013). This may be mitigated by the activity described in this study, where students are enlightened of the topic and its significance early in their university journey.

Opportunities for the development of student people-skills

Although the students' overall confidence in their own skill set was high, some reported the need for further development, notably planning career goals, time management and self-organisation, taking initiative, being more open minded and research skills. It was promising to note that the participants could identify a wide range of relevant self-development strategies that could enhance their skills within each of the five clusters. Some level of naivety or uncertainty of appropriate strategies was also evident, for example, students often cited 'practise' as a catch-all remedy for skill development.

Reliance on individual self-development alone may be insufficient - for some, additional support is needed. Some student groups, such as first generation (Hirudayaraj, 2011) and international students who tend to be less familiar with the expectations of industry and have fewer social support networks (Andrew, 2020; Green et al., 2020; Terpstra-Tong & Ahmad, 2018), may need explicit guidance and support from their tutors, careers advisors and peers. The framework for assuring quality in Work Integrated Learning by the Australian Collaborative Education Network Limited (ACEN) provides a comprehensive overview of key principles to guide elements of WIL within and across the curriculum (Campbell, 2019).

Of equal importance is a strong curriculum that scaffolds people skills across core or mandatory units, in learning activities and assessments, especially where a dedicated work integrated learning (WIL) unit is absent or difficult for some students to access projects, simulations and fieldwork, and other work oriented learning can be used (Australia Universities, 2019; Harris-Reeves & Mahoney, 2017). Harris-Reeves and Mahoney (2017) have suggested that as little as ten hours of shadowing could enhance perceptions of employability and increase student retention rates, as it strengthens a student connection with their study and possible employment pathways.

Limitations and proposals for future research

This cross-sectional study of first year undergraduates revealed student perceptions and awareness of their own people skills and the way they could address personal deficits by self-directed efforts and university services. To provide a more comprehensive understanding of the efficacy of this process, it would be useful to revisit students across their degree to ascertain if an exercise in awareness raising influenced their actions and how this manifested. It would also be useful to 're-visit' the same students later in their degree to reassess their level of confidence in their people skills and how this has altered over time.

The study did not demonstrate the students' intent to access these resources nor to engage in activities they identified as relevant to their personal development. For example, students stated they *could* enrol in units where they were expected to present to class to build associated communication skills, what we do *not know* is if they did this. Furthermore, in some areas, student stated *what* they could do to improve certain people skills, such as 'be more confident', but were unclear *how* they would achieve this. Qualitative studies that explored these areas more deeply in focus group or interview settings would offer a deeper and more informative picture.

The study's findings could also be enriched by future multi-site studies and by a longitudinal approach that employs an ongoing assessment of student perceptions of employability skills, as well as the strategies these students employed in further self-development.

Conclusion

The demonstration of people skills expected by industry is increasingly important to the successful employment of university graduates in today's highly competitive job market. This outcome depends on student awareness of these expectations and their efforts to develop these skills across their degree. Although this area has been investigated by different researchers in different disciplines over specific timeframes, we have yet to see a change in the findings in the difference between students' self-perception of their people skills and their actual level of attainment in this area. This study highlights the need for early intervention in higher education curriculum that fosters students' ability to reflect realistically on their people skills, facilitate their engagement in curricular activities, and signpost individual self-development opportunities.

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