Chapter 7

Connectedness Learning in the Life Sciences: LinkedIn as an assessment task

for employability and career exploration

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Abstract

Prevailing approaches to graduate employability tend to focus on human capital, in the form of work-related skills and knowledge. Such approaches often overlook dispositional and contextual factors that contribute to a person's employability, such as strength of career identity and connectedness with professional communities. This chapter evaluates an effort to incorporate connectedness learning into a core third-year unit of a health sciences degree at an Australian university, using the social networking site LinkedIn as the basis for a reflective employability report and goal setting assignment. Student feedback about the module and qualitative thematic analysis of the students' employability reports demonstrated that most students viewed employability as the possession of human capital and exhibited low levels of connectedness capabilities. We argue that university leaders and educators need to adopt more sophisticated approaches to employability, such as connectedness learning, in order to help students become employable graduates.

Keywords: career identity, employability, LinkedIn, networking, capabilities, life sciences

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Introduction

"You've been doing employability the wrong way" would be the click-bait headline if this chapter were to be published in an online news website. The prevailing approach to promoting graduate employability taken by higher education around the world is focused on the development of *human capital*, that is, work-related skills and knowledge (Clarke, 2017). However, graduate employability frameworks and strategies often overlook significant dispositional and contextual factors that contribute towards a person's employability. To more adequately promote the development of graduate employability, universities need to do more to connect students to their extensive networks of alumni and industry and provide careers and employability learning that helps students learn to explore and express their emerging professional identities (Bridgstock, 2017).

In this chapter we will explore the approach taken within one Australian university to enhance the employability of life science students through embedding into the curriculum a careers and employability learning module that uses social media, specifically LinkedIn, as a pedagogical tool to develop students' career identity and connect them with professional networks.

Employability

We take the view that employability is a psycho–social construct that enables people to proactively manage career and work related changes (Fugate, Kinicki, & Ashforth, 2004). Employability is recognised by many scholars as being more complex than just a set of skills (Clarke, 2017; Fugate & Kinicki, 2008; Fugate et al., 2004). In the vocational psychology and

career development literature, employability is conceptualised to have multiple dimensions: personal dispositions; adaptability; career identity; and human, social (Fugate & Kinicki, 2008; Fugate et al., 2004), psychological, and cultural capital (Williams, Dodd, Steele, & Randall, 2015). From a sociological perspective employability can be viewed through the lens of possession of skills and knowledge, position within society, and the process of finding and obtaining employment (Holmes, 2013). Connectedness learning is concerned with the social connections that universities can create, providing environments which enable professional learning, career development, and innovation (Bridgstock & Tippett, 2019a), thus emphasising the social capital dimension of employability (Fugate et al., 2004).

Career identity, an integral element of employability, guides proactive career behaviour (Bridgstock, 2019; Jackson, 2016) and is evident in individuals' stories about their past, present and future selves (McAdams & Pals, 2006; Meijers & Lengelle, 2012; Savickas, 2012). Career identity is developed through activities directed toward exploration and interaction with the environment and evolves over a lifetime (Meijers, 1998; Praskova, Creed, & Hood, 2015). Proactive, or career adaptive behaviours, are actions that individuals take to increase their skills, knowledge, and other attributes that support career development and achievement of career goals (Lent & Brown, 2013).

Graduate capabilities and career ready capabilities

La Trobe University (La Trobe) is a multi-campus institution in Australia with a large campus in Melbourne, and smaller campuses located in four major regional cities in the state of Victoria. Established in 1964, La Trobe places particular importance on educating students from diverse backgrounds, and currently has more than 35,000 students enrolled.

Graduate capabilities (La Trobe University, 2018b) are taught and assessed in all bachelor degree programs and include skills consolidated into four key domains: literacies

and communication skills; inquiry and analytical skills; personal and professional skills; and discipline-specific knowledge and skills. The Career Ready capability framework (La Trobe University, 2018a), however, was co-designed with employers, staff and students to support the enhancement of student employability. It complements the graduate capabilities, providing students with language that aligns with capabilities used by employers. The framework includes three components: students' purpose and career management (career identity); eight Career Ready capabilities; and four personal attributes (see Table 1 for details). The Career Ready capability framework is enacted through the Career Ready Advantage award program, in which students reflect on the learning they have achieved from completing employability related curricular and extracurricular activities.

Connectedness pedagogy: Social media

Social media has been recognised for several years as a means of enabling career development through increasing digital career literacies and collaborating online with professional networks (Longridge, Hooley, & Staunton, 2013). However, university students often have an unsophisticated understanding of how to use social networking sites for career development purposes (see Lupton, Oddone & Dreamson in Chapter 3 and de Villiers Scheepers et al. in Chapter 4 of this volume) and limit their use to job searching (Benson, Morgan, & Filippaios, 2014), creating an online profile, and connecting with existing networks (Gerard, 2012). Students have demonstrated limited awareness of the value of social networking sites for the development of career competencies and professional identity (Starcic, Barrow, Zajc, & Lebenicnik, 2017), and tend not to engage in more mature forms of networking such as cultivating strong networks, sharing information, engaging in dialogue, or collaborating with connections (Gerard, 2012).

LinkedIn is a global social networking site that allows users to set up a professional profile and connect with other professionals, present an online resume, find employment opportunities, and connect with co-workers or classmates (Florenthal, 2015). LinkedIn globally has 546 million users, including over 9 million users in Australia (LinkedIn, 2018). LinkedIn has particular value for higher education students and graduates as they explore their career options, establish their professional identity, and build their networks online (Hooley, Bright, & Winter, 2016; LinkedIn, n.d.).

Bridgstock (2019) argues that although LinkedIn provides numerous affordances to higher education students as a career development tool, many students are unaware of the full range of benefits that can be attained, such as developing their connectedness capabilities, career self-management skills, professional communication skills, digital literacies, and digital citizenship. Starcic et al. (2017) found that only 24% of the engineering students that they surveyed had LinkedIn accounts, although all of them had Facebook accounts. This lack of engagement with LinkedIn may be particularly acute in non-business related fields: only 11% of Australian final year students in health profession courses reported using LinkedIn (Usher et al., 2014). LinkedIn has been used as the basis for assessable learning activities in university curricula in an effort to increase student engagement with it (Gerard, 2012; McCorkle & McCorkle, 2012). This chapter is a new case study of such an assessment task.

Case-study context: A Life-Sciences curriculum in need of embedded connectedness learning

The Bachelor of Health Sciences course at La Trobe is a non-vocational 3-year degree with over 1,000 students. The degree is a pathway to at least 30 distinct professions (Lexis & Julien, 2018), predominantly in allied health fields. The human physiology and anatomy major (comprised of eight core subjects completed across the second and third year) is

popular with Bachelor of Health Sciences students but may also be taken by students in other non-vocational courses such as biomedical science and human nutrition.

In 2010, student feedback indicated that many students who were about to complete the major had little idea of their desired future career path and were unaware of the breadth of career pathways available to them. In response, we designed and delivered employability modules in third year subjects of the major. Although these modules had some success, they were limited to career exploration and self-reflection activities, and were lacking in connectedness pedagogies, such as social media and ePortfolios (see Bridgstock & Tippett, in Chapter 6). Taking inspiration from the Connectedness Learning Approach, we decided to expand the existing modules using LinkedIn, encouraging students to develop more connected career identities by observing and connecting with established professionals who used the network. Accordingly, this research explores how students perceived the value of the module, particularly the use of LinkedIn, and the impact that this approach had upon students' career identity and connectedness capabilities.

Method

Project design and delivery.

The authors, two life sciences lecturers and two careers and employability educators, collaborated to embed employability modules into two final (third) year core subjects of the human physiology and anatomy major. The module described in this case study was delivered in semester one to 109 students over a 12-week period, using a blended format which included two face-to-face classes (weeks 1 and 11) and a suite of online support materials. The face-to-face classes included guest sessions by careers and employability educators on employability, professional identity, and the use of LinkedIn, and several alumni, who shared their career experiences and employability advice. The online materials included an

employability section on the online Learning Management System which housed a student

forum, student module guide, and LinkedIn resources (LinkedIn, n.d.).

Students were assessed through two assignments: 1) an oral presentation on careers

and educational pathways worth 10% of the final subject grade, and 2) a LinkedIn profile and

an associated employability report, worth 15% of the final subject grade.

Oral presentation on career or educational pathways.

In week 12 of semester, students delivered an individual 3–5 minute oral presentation

on their preferred choice of postgraduate study or career path upon completion of their

degree. This assessment was designed to facilitate active participation in career exploration—

since individuals who engage in career exploration and planning activities have been found to

develop clearer career identities (Praskova et al., 2015)—and was also intended to be

preparation work for the development of a meaningful LinkedIn profile.

Creation of a LinkedIn profile and associated employability report.

In creating a LinkedIn profile, students were tasked to connect with at least three

professionals in the field that they wished to enter following graduation. Assessment criteria

focused on the quality of the profile's headline statement, professional summary, profile

photo, employment experience, education, skills, and expertise. To accompany this, we also

provided an employability report template to students, with a suggested word count of 1,000

words. The template, which included headings and instructions for students to respond to

several discrete reflection tasks is described below:

Reflection on building a LinkedIn profile: Students reflected on the experience of

creating a LinkedIn profile and connecting with professionals. First, students described how

they went about writing their professional profile and how they felt about the experience.

Second, students summarised the career stories of two of their professional connections and

described what they saw in their profiles that was helpful in some way; for example, the path

their connection took to their current employment, the kind of material they share on their

LinkedIn timeline, or what the person describes as their key professional skills.

Employability strengths and weaknesses: Students reviewed La Trobe's graduate

capabilities and the Career Ready capability framework, then reflected on their employability

strengths and weaknesses. We instructed students to provide evidence from university, work,

or volunteering activities to support their claims. Students were also encouraged to consider

the LinkedIn profiles of professionals in their desired field that they had connected with.

Goal setting: We asked students to state three goals, based on their self-identified

employability weaknesses; explain how each of the goals would contribute to the

development of their employability; and then outline one of those goals in detail, using the

SMART goal structure (Specific, Measurable, Attainable, Realistic and Time-bound;

Conzemius & O'Neill, 2009).

Student feedback.

At the end of semester, we invited students to complete a paper-based evaluation of

the module in which they rated the importance of, and their ability level on, a range of items

relating to the module on a 5-point Likert scale. The survey comprised numerical items and

an open-ended section which allowed students to provide additional comments. Eighty

students completed the survey, which is a response rate of 73%. Two authors, life sciences

lecturers, conducted descriptive statistical analysis of the quantitative data and conducted

inductive or data-driven thematic analysis, using the approach described by Braun and Clarke (2006), on the responses to the open-ended question "Which specific aspects of the employability module have contributed most to your learning?" Frequency of responses within the identified themes are presented quantitatively.

Qualitative analysis of student employability reports.

Two authors, careers and employability educators who were not familiar with the students or involved in the grading of the assignments, conducted a template analysis of 104 anonymised employability reports using NVivo qualitative data analysis computer software. Template analysis "is a form of thematic analysis which emphasizes the use of hierarchical coding" (Brooks, McCluskey, Turley, & King, 2015, p. 203). *A priori* themes were used to develop an initial coding template which was applied to a sample of the data, then iteratively revised until the researchers had exhausted all main emerging themes. The coding templates (see Tables 1 and 2) were developed using items from La Trobe's graduate capabilities (La Trobe University, 2018b) and Career Ready capability framework (La Trobe University, 2018a), the connectedness capabilities from the Connectedness Learning Approach (Bridgstock & Tippett, 2019a), and a list of career adaptive behaviours (Lent & Brown, 2013). Together, the coding frameworks represent a wide range of skills, attitudes, and behaviours that students were expected to communicate in their LinkedIn profiles, draw on in their reflections, and reflexively self-evaluate themselves against. The coders worked closely on coding decisions and refinements to the template, revised some of the coding to be more consistent and accurate, and concluded the coding when thematic saturation and coding consensus was achieved.

Results

Student feedback.

Overall: Feedback on the employability module showed that students valued it as a learning experience, with 75% agreeing or strongly agreeing that the module was relevant to their career development needs. Seventy-seven per cent agreed or strongly agreed that the skills they learned would be useful in the future. Forty-six per cent of students rated the extent to which they had begun to apply the skills learnt in the employability module in real life as high or very high, with 32% neutral and 22% rating it as low or very low.

Oral presentation: Student feedback on the value of the oral presentation for future study or employment was positive, with 84% of students agreeing or strongly agreeing that the presentation helped them to learn about their study or employment options after graduation and 78% of students rating their confidence in researching a course or job they would like to apply for as high or very high. Responses on the open-ended question showed that sixty-seven per cent of students listed research for, and delivery of, the oral presentation as contributing the most to their learning in this module.

Analysis of the oral presentations revealed that 99% of students wanted to undertake further study, with physiotherapy the most popular course (40%), followed by occupational therapy (16%), dietetics (7%), medicine (5%), and osteopathy (5%). Only one student chose to deliver their oral presentation on a career pathway as opposed to a study pathway.

LinkedIn profile and connecting with professionals: Feedback indicated that although they recognised the value of networking on LinkedIn, students did not rate their ability to use it highly. Sixty-three per cent of students believed it was very or somewhat important to create a LinkedIn profile and 71% of students reported that it was very important or somewhat important to connect with people via LinkedIn. Students' confidence in using LinkedIn was lower than their recognition of its value, with 53% reporting that their ability to

use LinkedIn was very high or high. Despite recognising the value of LinkedIn in general, in the open-ended question only 17% of students cited using LinkedIn as contributing the most to their learning and just 3% reported that connecting with professionals in their field contributed the most to their learning.

Employability strengths and weaknesses: Students recognised the importance of reflecting on and describing their employability strengths and weaknesses, with 79% of students considering it to be important or very important. Students also expressed some confidence in doing this, with 48% of students rating their ability to reflect on and describe their employability skills as high or very high and 41% rating it as adequate.

Goal setting: Feedback showed that students recognised the value of goal setting and expressed confidence that they could achieve their goals. Eighty-three per cent of students considered goal setting to be important or very important. Forty-eight per cent of students reported that their ability to set goals was very high or high. Fifty-nine per cent of students rated the likelihood that they would achieve their goals as high or very high and a further 38% rated it as medium.

Qualitative analysis of students' reflections.

In this section we explore in depth the results of the qualitative analysis of students' reflections.

LinkedIn profile and connecting with professionals: The first section of the written task was a reflection on the experience of using LinkedIn and connecting with three professionals. Student reflections in this section were coded against the five connectedness capabilities (Bridgstock & Tippett, 2019a), with multiple codes applied where students'

writing alluded to more than one capability. The analysis showed that student reflections mostly referred to three of the five connectedness capabilities: *building a connected identity* (72% of student reflections); *developing a social network literacy* (82%); and *growing connections* (72%). Student reflections included significantly less reference to *strengthening and maintaining connections* (5%) and *working with connections* (11%). Despite being in their final year of an undergraduate degree, most students were only operating at the foundational level of each competency, as evidenced by the statements described below.

For many students, signing up to LinkedIn and creating a profile was a new experience, with 82% of students reflecting on learning about the features, usability, and career management affordances of LinkedIn and therefore indicating engagement with the connectedness capability *developing a social network literacy*. For example, student #04 wrote:

> Being able to self-advertise myself to the wider community is something I didn't think I would be doing until I had finished my degree and [started] job searching. Thus, this early exposure to LinkedIn has fast tracked this process as well as helped me to see what other [allied health clinicians] do and what they have done to get where they are today.

Many student reports demonstrated that the experience contributed to their connectedness capability *building a connected identity* (72%). They found the act of putting their professional identity into words challenging but appreciated the importance of developing this skill. Student #06 wrote:

> Creating a LinkedIn profile to me was like gathering all of your life accomplishments into one space and exposing yourself to the world. The thing I found the most difficult was thinking of a summary in my profile, it made me confront myself. I had some

idea of where I wanted to go with my career but actually visualizing the pathway I needed to take was another process altogether.

Students also reported that they used their connections' LinkedIn profiles as exemplars as they developed their own, simultaneously *building a connected identity* and *developing a social network literacy*. They looked to others' profiles for ideas on how to write about themselves and which skills to highlight. Several students described being *inspired* in some way by what they learned, reporting that viewing the work and study histories of professionals in their chosen field made them feel more confident that they could achieve their goals and had encouraged them to be more open to experience, or helped them become comfortable with self-promotion. Student #78 wrote:

> What I found difficult about making my LinkedIn profile was being able to promote myself and talk about what skills I have that I thought were my strengths. At first I was hesitant to write anything down but I found that after viewing a range of people's profiles that it was no longer so daunting. […] I looked at other professionals in the field and saw what they had as their 'best' skills and tried to see if I had any that were similar. This then allowed me to see that I have acquired many useful skills throughout my studying so far, and to realise that promoting myself isn't a scary or daunting thing at all.

Numerous students recognised the opportunity LinkedIn presents in exercising the connectedness capability of *growing connections* (72%). It should be noted that connecting with people was a stated requirement of the assignment, whereas other connectedness capabilities were not explicitly elicited in the assignment prompts. Students reported connecting with people at a range of levels of seniority in the field, from fellow students up to leaders at the highest levels of their profession. Several students described difficulties connecting with people, such as making connection requests and receiving no replies, itself

an important element of *social network literacy*. Student #02 described how they learned

from this experience:

> I attempted to add individuals who came up as LinkedIn members however [I]
>
> wouldn't get any response, until I decided to add a [health professional] who I had a
>
> mutual friend with, then once they accepted me, I was able to add and connect with a
>
> large number of [health professionals].

The connectedness capabilities *strengthening and maintaining connections* (5%) and

working with connections (11%) were only evident in a small number of cases. Few students

described how they could use LinkedIn to develop existing connections or pursue

opportunities for real-world engagement with their connections. This again highlights that the

final year undergraduate students in this study were operating at a foundational level, having

only begun building their connections as a requirement of this assignment.

Employability strengths and weaknesses: The second part of the assignment was an

employability self-evaluation, where students reflected on the strengths and weaknesses of

their employability skills. We coded students' evaluations of their employability strengths and

weaknesses against all three competency frameworks (see Table 1). An additional code was

created to reflect the fact that students considered the presence of work experience a strength

and the lack of it a weakness in and of itself. Frequencies of the codes are found in Table 1.

The Career Ready capability framework and graduate capabilities overlap

significantly, so we were unable to analyse students' self-evaluation of discrete competencies

with accuracy. However, the reflections do show a broader thematic consistency, in that

students cited social and interpersonal competencies as strengths approximately twice as

often as they did cognitive or analytical competencies (see Table 1). Several students cited the

same competency as both a strength and a weakness, demonstrating some depth of reflection and an understanding of the complex and contextual nature of the frameworks.

<insert Table 1 about here>

A perceived lack of relevant work experience was the most frequently cited employability weakness, despite not appearing in the frameworks that students were asked to reflect on. Thirty per cent of students indicated that work experience had strengthened their employability while 60% identified a lack of work experience as an employability weakness. As student #90 reflected:

> A lack of experience in a healthcare environment leaves me unprepared for a new job in this field. […] I have not participated in any 'placement' and therefore have no valid healthcare environment experience. Overall, without further volunteer work and a background of experience in healthcare, other applicants would likely get a job over me.

Many students described their lack of experience in this way, as a lack of career capital on their resume, rather than the absence of professional learning experiences which would themselves help develop a range of employability competencies and characteristics.

Although we only asked students to reflect on the two competency frameworks used at La Trobe, we also coded responses in this section against the five connectedness capabilities to see if they emerged through student reflections. Ten per cent of cases cited connectedness capabilities as a strength and 37% cited connectedness capabilities as a weakness. Two capabilities—*connected identity* and *growing connections*—were the most frequently coded connectedness capabilities, both of which were often seen as potential weaknesses. Student #49 alludes to both capabilities as weaknesses:

My current employability weaknesses would include my lack of current connections I have made on LinkedIn. Although I have connected with those who have helped shape my own profile and compared education pathways with, I must expand on my current connections which will expose myself to future employers and possibly open more potential job opportunities or volunteering roles.

Employability goal setting: The final section of the assignment was a goal-setting exercise. We coded the employability goal-setting section of the students' reports against connectedness capabilities and career adaptive behaviours (Lent & Brown, 2013) (see Table 2), as a reflection of students' intended future action. We added an additional adaptive behaviour, *seeking a credential or qualification*, to reflect many students citing this as a goal.

Most students identified goals focused on developing their employability skills, gaining relevant experience, and seeking credentials or qualifications. In this assignment, students were asked to list their goals after reflecting on their employability weaknesses, which may explain why *developing employability skills* was cited so frequently as a goal.

The other two most frequently cited goals relate to qualities of employability that were not present in the frameworks, but that students felt were important enough to add themselves: career-relevant experience and professional qualifications and credentials. Overall, student goals demonstrated a transactional approach to employability where the primary goal was simply to improve career capital on their resume, rather than to pursue opportunities for professional learning experiences through which they could develop their employability competencies and characteristics. This may be in part due to the students' ambitions to enter clinical health professions, such as physiotherapy or occupational therapy, in which a specific qualification and accreditation is required.

<insert table 2 about here>

Despite students recognising the need to develop their employability skills and gain relevant experience, few described an intent to draw on resources in their professional network in pursuit of those goals. For example, student #98 claimed that their goal to get more relevant experience "can be accomplished by emailing numerous [health professionals] and dropping my resume, asking if I could sit in on sessions or get some work experience. First step is to formulate a template to email [them]". This student is describing a high volume cold-calling approach, rather than reaching out to existing contacts or strategically-chosen new connections with more personalised communications, and does not refer to using LinkedIn at all. Student #84 described a similar approach to securing volunteer work, "by phoning up as many clinics as possible and asking if they would be willing to take me on [for work experience]".

Overall, few students described goals employing connectedness capabilities. Among those who did, mention was largely limited to growing the number of connections. Only 1% of students described strengthening existing relationships and only 5% described working with connections. Importantly, those who referred to strengthening relationships or working with connections demonstrated more mature and strategic understandings of careers and employability than those who did not, such as student #23, who described a specific plan to develop their entrepreneurial skills by "arranging a meeting with [business owner] over the holidays so that I can get some ideas about web solutions that may be beneficial to my future business". Similarly, student #29 described a plan to approach specific connections to seek experience relevant to their own research interests: "I have spoken to [researcher] regarding an internship in their lab, studying [disease]. I have a meeting with [researcher] in the coming days and hope to learn and gain experience through this opportunity".

Discussion

This study shows that students valued the employability module overall, and analysis of 104 student employability reports, based on student use of LinkedIn, provides empirical evidence supporting the conceptualisation of five capabilities described in the Connectedness Learning Approach (Bridgstock & Tippett, 2019a), but also demonstrates the importance of scaffolding connectedness learning from early on in the curriculum.

Our research shows that students valued the employability module, and that some had begun to apply the skills learnt outside the classroom in real-life. Overall, students most valued the oral presentation component of the module, in which they researched and presented on potential educational and career pathways, and 78% of respondents rated their confidence in researching a course or job they would like to apply for as high or very high. This is a positive outcome, as career exploration is both an antecedent and outcome of career decision making self-efficacy (Ireland & Lent, 2018), which develops students' vision of their future work self and their sense of career concern, confidence, control, and curiosity (Guan et al., 2017), and promotes more coherent career identities (Praskova et al., 2015).

Students' positive feedback on the value of networking on LinkedIn, reflecting on their employability strengths and weaknesses, and goal-setting clearly demonstrates that students recognise the value and relevance of connectedness pedagogies to their career and employability development. The fact that they were largely operating at the foundational level of connectedness capabilities is not an indication that they did not authentically engage with the module, but rather that they needed more time and support to mature and consolidate their use of connectedness capabilities to develop their professional identities and networks.

Students demonstrated the connectedness capabilities of *developing a connected identity, building social network literacy,* and *growing connections,* albeit that these

competencies were limited to the foundational level. The capabilities *strengthening and maintaining connections* and *working with connections* were only evident in a small number of students, and reflects the stage of development of students in this study, rather than a lack of support for the existence of these capabilities.

The students in this study expressed their networked identities as observers of, rather than participants in, their professional communities. Although students valued the career exploration activities in the module, their exploration was largely limited to credentials and pathways into graduate study. As there is much competition for enrolment places in graduate study, it is not surprising that students are reluctant to commit to a professional identity until they are accepted into a vocationally-specific graduate program. However, we did expect that the vocational focus of the Bachelor of Health Sciences as a pathway to a range of careers (Lexis & Julien, 2018) would have resulted in stronger expressions of professional identity, especially in relation to a specific occupation.

Our analysis also showed that students tended to demonstrate a possessional approach to employability (Holmes, 2013) which focused on development of human capital, often to the exclusion of other aspects of dispositional employability. They described career relevant experiences and qualifications as a kind of currency in a transactional employment market, rather than as learning experiences through which they could develop their career identity, build marketable skills, and find their place in their professional community. Students seldom reflected on dispositional aspects of employability—such as their career identity—as contributing to their employability, nor did many students identify connectedness capabilities as strategic approaches to adopt in pursuing their employability development goals. For many students, membership of a professional community was much more a matter of gaining credentials than developing reciprocal professional relationships.

<b>Application for practice.

This chapter provides evidence that employability modules including social media and connectedness learning are an effective way to develop graduate employability. However, careful consideration needs to be given to timing and scaffolding, with employability curricula ideally embedded across all year levels of a course, as well as the development of collaborative relationships between academic lecturers and careers and employability specialists.

The evidence from this study demonstrated that students' development of connectedness capabilities was at the foundational level. Connectedness capabilities in general, and the use of LinkedIn specifically, clearly require more time, scaffolding, and explicit instruction and assessment to allow students to build their proficiency and cultivate their networks to greater professional maturity, a point made by a number of other researchers (Benson et al., 2014; Gerard, 2012; Starcic et al., 2017). Benson et al. (2014) recommend a scaffolded approach that introduces undergraduate students in first year to develop basic social network literacy. In second year, they recommend expanding students' understanding of using social networks in employment contexts, especially for obtaining internships and volunteering opportunities, and focusing in their final year on researching organisations and employment opportunities. Therefore, we recommend that students should be introduced to employability modules including social media and connectedness learning at the beginning of their program, with curriculum designed to scaffold the development of connectedness capabilities to a more advanced level by the end of the degree program.

It was evident through the students' goals that their focus was on developing employability skills and gaining career experiences rather than on acquiring connectedness capabilities. Scholars and practitioners developing a similar employability module may need to consider how to change the mindset of students so that they place greater emphasis on

making and developing strong connections. Career exploration activities in the curriculum, combined with the early introduction of social media such as LinkedIn, could go some way to achieving this as it gives students more time to consider the range of pathways available to them.

Central to the Connectedness Learning Approach is the need for enabling strategies, such as taking an integrated approach to pedagogies and partnerships; identifying, developing and strengthening key relationship broker roles; using connectedness-enabling digital tools, like LinkedIn; and reducing institutional barriers to connectedness to ensure modules like this can be authentically integrated into the curriculum (Bridgstock & Tippett, 2019a). At La Trobe, the time was right to introduce and pilot employability modules as the university had stated its' intention to support employability through the strategic plan (La Trobe University, 2017) and supported the development of the Career Ready capability framework and Career Ready Advantage. Furthermore, this project was the result of a strong collaborative relationship between life sciences academics and careers and employability educators, based on a shared vision of students' employability and understanding of their needs, which can serve as an exemplar of a collaborative approach to careers and employability learning based on collective learning and transformational leadership (Lodders & Meijers, 2017). Such relationships, which distribute careers and employability expertise and promote professional learning, should be enthusiastically encouraged and supported by all levels of university leadership.

The module described in this chapter is not inherently specific to life sciences and could easily be tailored to the specific needs of other disciplines. For a discipline where there is an obvious path to employment in a defined and regulated profession like medicine, law, or education, the focus might be on developing and working with networks, whereas with a

generalist discipline like humanities, science or psychology, the module might need to focus on students' exploring potential career paths and establishing a career identity.

Finally, it is important to consider ethical and privacy implications in using social media as a pedagogical tool. Students should be introduced to the privacy, security, social etiquette, and accessibility issues surrounding the use of social media in teaching and assessment (Benson et al., 2014; Longridge et al., 2013; Rodriguez, 2011). Furthermore, there are legitimate reasons why people choose not to use LinkedIn, such as law enforcement or social work professionals not wanting their personal and professional details to be found online, or people suffering harassment and stalking. Students should be allowed to opt out of creating a LinkedIn profile and offered alternate assessment tasks if they so choose.

Conclusion

This research shows that an employability module comprised of research into career and educational pathways, networking on LinkedIn, reflecting on employability strengths and weaknesses, and goal-setting was valued by students. Our analysis of the students' employability reports showed that despite being in their final year of an undergraduate degree, development of their career-identity and connectedness capabilities was at the foundational level. As the students have plans to pursue postgraduate study in a clinical health field, many appear to be not fully committing to a career identity until they are accepted into postgraduate study. Students who are planning to find employment after their undergraduate degree may be more receptive to an employability module focused on developing their career identities and connectedness capabilities. Future research should examine the Connectedness Learning Approach and the use of LinkedIn as a pedagogical tool in the curriculum of different programs and subject areas.

Finally, it is important to note that the students in this module were doing what was asked of them by the prevailing culture of graduate capabilities and employability skills, in which capabilities are listed in subject guides and checked off in learning and assessment tasks. It is not surprising that students demonstrated that they hold a human capital view of employability. To help students more effectively develop the attitudes, behaviours, and capabilities that will allow them to pursue and achieve their career goals, the university leaders who set employability strategies, and the university educators who deliver them, need to evolve their own understandings of and approaches to employability, away from lists of skills and toward authentic connectedness with professional communities.

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Table 1: Coding of reflections on employability strengths and weaknesses (N=104)*

Categories	Codes	Strength	Weakness
Connectedness Capabilities			
	Building a connected identity	5	14
	Growing connections	4	18
	Strengthening and maintaining connections	1	1
	Developing social network literacy	0	2
	Working with connections	0	4
Graduate Capabilities			
	Personal and professional skills	77	24
	Discipline-specific knowledge and skills	49	35
	Literacies and communication skills	42	20
	Inquiry and analytical skills	37	9
Career Ready Capabilities			
Cognitive flexibility	Results orientation	23	11
	Innovative thinking	6	3
	Business and digital acumen	5	7
	Big picture awareness	2	3
Social intelligence	Communicating and influencing	35	21
	Collaboration	34	10
	Personal judgement	12	14
	Cultural awareness	9	7
Personal attributes	Passion	20	5
	Empathy	12	0
	Resilience	10	3
	Curiosity	7	2
Other codes			
	Work experience	31	63
	Other skills	9	8
	Extra-curricular	5	1
	Academic performance	3	3
	Qualification or credential	1	8
	International student	0	1

* Codes are sorted in each category by highest to lowest frequency of strength

Table 2: Coding of goals relating to connectedness capabilities and career adaptive

behaviours (N=104)*

Categories	Code	Frequency
Goals related to Connectedness Capabilities		
	Growing connections	30
	Working with connections	12
	Building a Connected Identity	6
	Developing social network literacy	4
	Strengthening and maintaining connections	2
Goals related to Career Adaptive Behaviours		
	Developing employability skills	115
	Acquiring career-relevant experiences	76
	Seek a credential	45
	Exploring career paths	10
	Search for and obtain employment	9
	Engaging with profession	4
	Managing transition from study to employment	3
	Knowledge	2
	Implementing decisions	1

* Codes are sorted in each category by highest to lowest frequency