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Title: Increasing psychological literacy and work readiness of Australian psychology undergraduates through a capstone and work-integrated learning experience: current issues and what needs to be done

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Abstract

Objective: While most students undertaking bachelor level training in psychology will not become registered psychologists, as graduates they join a large pool of well-educated and psychologically literate citizens who can apply psychology in a range of contexts. Our objective is to showcase the literature on capstone and work integrated learning (WIL) courses and outline how these specialised courses could be utilised to support undergraduate psychology students and ensure the community benefits from their strengths. Method: In this paper, we summarise the current issues, emerging trends, and educational priorities in this area. We provide a critical survey of the extensive literature produced in the last decade, offering a synthesis of current thinking in the field and perspectives on directions forward. We review and summarise different primary studies on capstone and WIL courses from which we draw conclusions into a holistic integration gained by the authors' own experience and the available literature. Results and Conclusions: Capstone and WIL courses address a significant gap in the work readiness of Australian psychology undergraduates and may also consolidate these students' psychological literacy. Developing a sense of professional identity and increasing self-efficacy in these graduates can enhance students' work readiness, potentially facilitating a smooth transition into professional work. We advocate for changes to the education of psychology undergraduates and outline the implications for the future workforce.

Keywords: psychological literacy, capstone, work integrated learning, psychology undergraduates

Key Points

What is already known:

- Most students who undertake undergraduate training in psychology will not become psychologists
- There is a mismatch between student expectations and the practical application of undergraduate training
- Psychology graduates who secure employment work in a broad range of occupations

What this paper adds:

- An overview of the available literature exploring the strengths of capstone and work integrated learning (WIL) courses
- An update on how capstone and WIL courses enhance the work readiness needs of undergraduate psychology students
- Recommendations for educators regarding the future of undergraduate psychology education

Introduction

Psychology remains one of the most popular fields of higher education in Australia. However, the vast majority of undergraduate students do not continue on to post-graduate training programs or register as professional psychologists, with estimated reports as high as 66% (Borden & Rajecki, 2000; Cranney & Dunn, 2011; O'Connor & Hansen, 2009; Upton & Trapp, 2010). Australian undergraduate psychology programs are traditionally a three year degree, with students competing for entry into an honours/four-year program of study. To register as a psychologist, students need to complete an additional two year supervised work program, a combination of university coursework as a fifth year and one year supervised work program, or a Master's or Professional Doctoral program (Littlefield, 2016; O'Connor & Hansen, 2009).

Currently, psychology undergraduate training is largely based on the scientist-practitioner model, where students are taught theoretical, discipline-specific knowledge to support further education through postgraduate training pathways. Training is based on the continued development of theoretical and research knowledge, with practical application acquired in specialist programs at a postgraduate level (Goedeke & Gibson, 2011). Hence, there is often a mismatch between student expectations and what is taught in undergraduate psychology programs, with students expecting more practical and skill-focused training rather than scientific and research knowledge (Gaither & Butler, 2005; Goedeke & Gibson, 2011; Green, Conlon & Morrissey, 2016; Rowley, Hartley, & Larkin, 2008). Without opportunity for authentic application, this knowledge is likely to be interpreted by students as irrelevant (Billet, 2009). Students who complete only the undergraduate psychology program, therefore, often feel that they have failed or wasted their time as they are unable to work under the title of 'Psychologist', and have difficulty describing careers, tasks, and roles that they are well equipped to undertake (Borden & Rajecki, 2000; O'Connor & Hansen, 2009). It

is imperative that psychology graduates understand and appreciate the range of skills and knowledge gained throughout their degree, which are highly transferable to a variety of industries and professional positions (O'Connor & Hansen, 2009). Further, they must be able to articulate these skills and competences to potential employers, often from other disciplines, who may not appreciate the value of someone who has completed some psychology education without attaining full or provisional registration as a psychologist. The onus is therefore on educators to ensure they provide a psychology education that will assure the development of both generic and discipline specific graduate attributes are met (Burton, Chester, Xenos & Elgar, 2013; Karantzas et al., 2014; Lizzio 2011).

The most frequently reported occupations of psychology undergraduates in Australia are: (1) legal, social, and welfare professionals; (2) business, human resource, and marketing professionals; and (3) health and welfare support workers (Graduate Careers Australia (2015). For psychology graduates under the age of 25 years, however, the third most common occupation is sales assistant. Although graduates of a psychology undergraduate program are equipped with transferable work-related skills (e.g., effective communication, team work, problem-solving and reasoning skills; Australian Psychological Society [APS], 2012; O'Connor, Hansen, & White, 2008), 55% of psychology graduates in Australia are reported to still be seeking professional employment four months after graduating (Graduate Careers Australia, 2015). Unemployment rates remain high among recent psychology graduates (40%; Graduate Careers Australia, 2015), with a large number of individuals returning to further study (36.1%; Graduate Careers Australia, 2015). New graduates without relevant or specialised work experience (e.g., drug and alcohol, mental health) are less successful in gaining employment (Department of Education, Employment and Workplace Relations [DEEWR], 2010). Recently, a media report stated that "Psychology is Australia's most

overrated degree...with only 63% of psychology graduates finding full-timework in their chosen field” (McCrindle Research, 2014).

However, it is also worth keeping in mind that employment outcomes for all Australian graduates have been falling since the global financial crisis in 2007 and it is sometimes factors outside of a graduate’s control, rather than this being a reflection of graduates skills and attributes (Jollands, 2015). In many ways, the issues facing psychology graduates are similar to those faced by graduates from many other disciplines where the exit point does not lead to a professional identity. While two decades ago, work readiness and employability began to be considered important outcomes for graduates (Gabb, 1997; Stewart & Knowles, 1999), more recently, across the broader higher education literature, there has been a renewed call for greater emphasis on work readiness and graduate employability, with future University funding potentially being influenced by success in graduate employability (Baker, Caldicott & Spowart, 2011, 2013; Jollands, 2015a; Jollands et al., 2015; Kinash, Crane, Capper, Young & Stark, 2017).

Irrespective of this somewhat somber view, thousands of students graduate from three year psychology programs or psychology majors each year in Australia. To seize the opportunity and capitalise on this large pool of well-educated and psychologically-minded graduates, it is timely that educators assist psychology graduates to understand and appreciate the vast range of skills and knowledge gained throughout their degree, which are highly transferable to a variety of industries and professional positions (O’Connor & Hansen, 2009). Accordingly, education systems need a ‘shift’ in their learning and teaching approaches to focus on not only what employers are specifically looking for in graduates (e.g., technical competence, life and work experience; Michael, 2012) but the capabilities needed to respond to and thrive within a rapidly changing world (Bridgstock, 2016; Jollands (2015b).

Capstone courses, some of which include a work integrated learning (WIL) experience, or those which encourage a ‘student lifecycle’ approach (Burton et al., 2013; Lizzio 2011), are a move toward this new focus in learning and teaching and are emerging in a number of disciplines across Australian universities, including psychology (Freudenberg, Brimble & Vyvyan, 2010; Kift et al., 2011; O’Connor & Hansen, 2009; van Acker & Bailey, 2011). The experiences gained through WIL provide students with the opportunity to integrate academic learning with practice, benefiting students through increasing self-esteem, enhancing social skills, and advancing networking opportunities, whilst gaining practical experience in the field (Bates, 2005). WIL placements play an important role in graduate work readiness providing students with opportunities to apply, reflect, and extend on the knowledge and skills obtained throughout their degree (Richardson et al., 2009; Von Treuer, Sturre, Keele, & McLeod, 2011). A submission to the Australian Psychological Accreditation Council (APAC) Standards Review (2012) recommended undergraduate programs in psychology include a capstone course, preferably incorporating a WIL component (Cranney & Botwood, 2012). The capstone experience in the three year undergraduate psychology program provides students with opportunities to integrate and apply their knowledge to effectively address social and behavioural issues at individual, community, and government levels, both locally and globally (Charlton & Lymburner, 2011; Cranney & Dunn, 2011; Cranney & Botwood, 2012).

Psychological Literacy and Capstone

An argument posed by innovative educators in psychology is that a central aim for psychology is to promote and develop psychologically literate citizens ready to engage with professional workplace practices (McGovern et al., 2010). Psychological literacy is the ability to apply psychological skills and knowledge to real life contexts, and includes concepts such as critical thinking, effective communication, acting ethically, being insightful and reflective,

and respecting diversity (Cranney & Dunn, 2011; Cranney et al., 2011; McGovern et al., 2010; Trapp et al., 2011). To produce psychologically literate citizens and address the employability needs of graduates entering the workforce on completion of an undergraduate bachelor-level degree, it is suggested that undergraduate psychology degree programs offer a capstone course in the final year which includes a WIL experience.

Transitioning from university to the workforce can be challenging for many graduates (Burton et al, 2013; Jollands et al., 2015), hence the urgency to implement a capstone experience into undergraduate programs to support students becoming ‘work ready’ (Jervis & Hartley, 2005; McNamara, Brown, Field, Kift, Butler, & Treloar, 2011). The purpose of this *capping* or *bridging* experience is to provide students with the opportunity to: (a) integrate and synthesise previous academic learning, (b) extend and apply previous knowledge, (c) integrate theoretical work across the field, (d) become a more effective user of knowledge, (e) bridge graduate study, (f) gain a practical orientation to the discipline, (g) socialise as an educated citizen, and (h) become more active as a citizen (Hauhart & Grahe, 2010). In essence, a capstone is an applied, practical learning experience that builds upon knowledge and equips students with skills for successful transition to professional practice (Dunn & McCarthy, 2010). McNamara et al. (2011) suggest an effective capstone experience supports students to develop a professional identity, strengthens students’ lifelong learning skills, and prepares students as ethical citizens and leaders.

Capstone courses were originally introduced in the 1990’s to address the lack of in-depth learning in undergraduate studies (McNamara et al., 2011). In the USA, Perlman and McGann (1999) reviewed 500 college catalogues in the 1990s and found 63% of psychology departments required students to complete a capstone course or senior seminar as part of their undergraduate degree. Stoloff et al. (2010) found 40% of psychology programs in North America offered a capstone experience, a substantial drop from the 63% reported by Perlman

and McGann(1999). It is possible that the decrease in offerings may be due to the high cost of a small-class experience, and the demands on faculty time and resources (Johnson, Close, Kite & Tuskenis, 2011; Stoloff et al., 2010), or possibly the lack of availability of suitable industry placements for undergraduate students. However, it may also be that higher education providers are finding more cost efficient means of embedding WIL than through the traditional industry placement experience (Jollands, 2015b; Jollands, et al., 2015).

A recent Australian study showed that WIL for engineering students that did not include an actual placement in industry was equally effective in developing students' perceived sense of employability (Jollands 2015b). Similarly, a peer mentoring program (transition-in transition-out: TiTO) developed by Burton and Colleagues (Burton, et al., 2013; Chester, Burton & Elgar, 2013; Xenos, Chester & Burton, 2013) has also demonstrated that peer mentoring skills adds to psychological literacy in graduating students. These innovative approaches clearly require replication by other disciplines and may be easier to involve than the traditional industry placement. They also provide an opportunity for future curriculum development a broader definition or operationalisation of what might constitute WIL; clearly an area for future research to explore.

In Australia, while almost 50% of psychology higher education providers report offering a capstone project, an internship, or a workplace activity (Bond, 2016), few undergraduate psychology programs offer a capstone experience that also includes a work placement or volunteer experience. As a consequence for psychology, graduates have consistently ranked their training much lower, compared to alumni from a number of other fields, in relation to preparedness for a career (Borden & Rajecki, 2000). The core of psychology education, however, is to equip graduates with particular attributes that enable them to be psychologically literate and work ready. Six psychology graduate attributes have been identified in Australian programs which reflect the knowledge, skills, and values

consistent with the scientist-practitioner training model (Cranney, Turnbull, Provost, Martin, Katsikitis, & White, 2009). They include: (1) knowledge and understanding of psychology, (2) research methods in psychology, (3) critical thinking skills in psychology, (4) values in psychology, (5) communication skills, and (6) learning and the application of psychology (Cranney et al., 2009). More recently, Karantzas et al. (2014) identified a seventh graduate attribute: digital literacy (yet to appear in accreditation standards for psychology). While some of these graduate attributes might be considered generic (critical thinking, digital literacy, communication, team work), psychological knowledge, self-regulation, and adaptability may be seen as psychology-discipline specific. A capstone experience in a psychology program should be designed to integrate psychology knowledge, self-regulation and adaptability and challenge the student to apply this knowledge with appropriate communication, digital, and critical thinking skills to authentic work place issues (Stoloff et al., 2010; Karantzas, et al, 2014).

WIL as a component of a capstone course. As indicated above, one approach to help students integrate and apply their knowledge is to embed a WIL component into a capstone course to better prepare students for and help transition them into employment (McNamara, Kift, Butler, Field, Brown, & Gamble, 2012; Von Treuer et al., 2011). WIL approaches are effective in developing and improving the employability and work readiness of students and enhancing some career management skills such as team work and decision-making learning (see Jackson & Wilton, 2016). First, the work placement provides students with a platform in which to apply previous knowledge and learning in a ‘real world’ work place setting, and sometimes becoming a creator or producer of knowledge instead of just a consumer (Neary & Winn, 2009). Second, a WIL experience encourages students to reflect on this experience to develop a deeper understanding and appreciation for the new learning that has taken place (Patrick, Peach, Pocknee, Webb, Fletcher, & Pretto, 2009; VonTreuer et

al., 2011). Work placements have been a feature of vocational degrees (e.g., engineering) for many years, but have been less common in theoretically-based courses such as psychology (Reddy & Moores, 2006). For a successful WIL experience, students need to be open to developing new skills, attitudes, and abilities (Bates, 2005). Focus groups and surveys conducted across Australia to gain an insight into the motivation and participation of students in WIL found that the opportunity to gain work experience and to be able to cite this on their resume as the most common theme reported by students. Students also recognised that the experience helped them to define future career directions (Patrick et al., 2009). Motivation plays a key role in having a successful WIL experience. Students need to be willing to take responsibility for their own learning and actively contribute to their work placement (Bates, 2005). A successful placement can increase students' self-esteem and social skills, which are important for the transition from student to professional (Bates, 2005).

Employer Needs and Work Readiness

The core of a capstone/WIL experience is to enable students to recognise and appreciate the skills and attributes they possess to meet employer needs as well as preparing them to be work-ready. Final year undergraduate psychology students have spent considerable time developing and refining a particular set of skills that allows them to think critically, scientifically and ethically, and have a well-developed interpersonal communication style (McGovern et al., 2010; Trapp et al., 2011). Graduates are able to comprehend and use data effectively, problem solve, and make critical evaluations (Cranney et al., 2009; Trapp et al., 2011). They can provide a unique insight into understanding individual differences, emotion, motivation and behaviour, whilst working within an ethical framework (APS, 2012; Trapp et al., 2011).

The core attributes of the undergraduate psychology degree overlap greatly with attributes favoured by employers (1) communication skills, (2) the capacity to work well in a

team, and (3) problem solving skills (Australian Chamber of Commerce, 2002). ACNielsen (2000) found that employers from the health and community sector were looking to employ graduates who can demonstrate: good oral business communications and time management skills, the ability to handle pressure, creativity and flair, enthusiasm, and capacity for independent and critical thinking. The survey of 1105 employers found three main reasons for recruiting new graduates were to: (1) provide a sufficient pool for future middle and senior managers, (2) fill the need for trained and educated people in areas requiring professional or highly skilled people, and (3) introduce new ideas and techniques into the organisation (ACNielsen, 2000). Employers rated a wide-range of other personal attributes such as enthusiasm, ambition, maturity, adaptability, flexibility, and motivation for life-long learning as also highly desirable (ACNielsen, 2000). Employability skills valued by employers provided by the DEST (2002) included similar attributes; loyalty, commitment, honesty and integrity, personal presentation, motivation and adaptability, teamwork, communication skills, planning and organising, and initiative and enterprise.

It is clear from these studies with employers that there is a growing demand for graduates to possess a wide-range of employability skills and attributes (i.e., non-technical skills and knowledge necessary for effective participation in the workforce to achieve one's potential and contribute successfully to the workplace; Caballero & Walker, 2010; Caballero, Walker, & Fuller-Tyszkiewicz, 2011; DEEWR, 2012; DEST, 2002). There are also calls from higher education administrators to move beyond 'tick box' lists of capabilities and invest effort in widening the professional networks of students prior to graduation (Bridgstock, 2016; Jones, 2009). Graduates can no longer expect that a tertiary education will make them immediately employable (Blaxell & Moore, 2012; Caballero & Walker, 2010), and it is of limited value to assume that a finite list of skills or capabilities will meet the needs of future workforces. Traditionally, common assessment tools used in the recruitment of

university graduates included application forms, academic achievement tests and interviews, and cognitive ability tests (Carless, 2007). Accordingly, universities tend to focus on the intellectual development of students rather than on specific skills training and competencies, which is the main focus of vocational institutions (Blaxell & Moore, 2012). In the current workforce context, graduates entering workplaces whose training focuses purely on academic acumen may have insufficient work-related experience or work readiness sought by employers (Caballero & Walker, 2010, Caballero et al., 2011).

Work readiness is an emerging construct which includes interchangeable terms such as work preparedness, graduate employability, and transferable skills (Caballero & Walker, 2010). Work readiness is highly relevant and valued by employers as it allows less time to be allocated to general skills training (e.g., presentation, communication) and more time to be allocated to learning the position. It is suggested that graduates who have highly developed work readiness skills are more likely to secure a professional position (Caballero & Walker, 2010). Work readiness is a potential indicator of job performance, success, promotion, and career advancement, and is now often used as a selection criterion for predicting graduate potential (ACNielsen Research, 2000; Caballero & Walker, 2010; Caballero et al., 2011; Gardner & Liu, 1997). An issue, however, is that there is no clear conceptualization or definition of work readiness in graduate employees, with employers placing different values on a number of skills and attributes, as well as using different terms to describe a 'work ready' graduate (Caballero & Walker, 2010).

Caballero and Walker (2010) identified five key attributes and skills associated with work readiness and graduate success: communication, motivation, initiative, creativity, and interpersonal skills. In building on this work, Caballero et al. (2011) sought to develop a comprehensive measure of work readiness which defines the attributes and characteristics of the construct in a graduate setting. The findings indicated that work readiness is a

multidimensional construct which includes four factors: *personal characteristics* (personal skills, self-direction, self-knowledge, adaptability, flexibility), *organisational acumen* (professionalism, work ethic, ethical judgment, social responsibility, global knowledge, motivation, lifelong learning/self-direction), *work competence* (organisational ability, critical thinking, problem-solving, creativity/innovation), and *social intelligence* (teamwork/collaboration, interpersonal/social skills, adaptability, communication skills).

Caballero et al. report that the four factors share similar attributes and characteristics defined by others in the literature (Atlay & Harris, 2000; Casner-Lotto & Barrington, 2006; Gabb, 1997; Gardner & liu, 1997; Hambur, et al., 2002; Hart, 2008; Stewart & Knowles, 2000).

Academic achievement has traditionally been considered one of the most important components of graduate recruitment and selection (Roth & Bobko, 2000); however, this does not guarantee success and capability in the long term (Caballero & Walker, 2010), and is not the focus of employer responses in contemporary research. A study conducted at a leading Australian university explored the contribution of work placement on the development of generic skills as a formal element of the undergraduate degree. The results found that while graduates acknowledged the contribution that the university provided in developing their generic skills, they greatly valued learning in the workplace during placement and later in employment (Crebert, Bates, Bell, Patrick, & Cragolini, 2004). Students preferred working collaboratively with colleagues whilst on the work placement, learning skills such as problem solving, analysis, teamwork, leadership, taking responsibility, making decisions, and high ethical standards (Crebert et al., 2004). The authors suggest that results from the study are indicative of a relationship between graduates' experience of work placement and the transition from tertiary studies to professional employment. Sixty percent of graduates either 'strongly agreed' or 'agreed' with the statement, "My development of generic skills and abilities during university work placement gave me a definite advantage when it came to

finding employment after graduation”. Seventy-four percent of graduates also believed that the generic skills and abilities developed as a result of their work placement contributed to advancement in their career (Crebert et al., 2004). Other Australian self-report studies have also found that students believe work placement experiences (such as WIL) improved their professional skills and qualities (Jackson, 2013).

Crebert et al. (2004) suggest that the workplace learning environment contributes to integrating theoretical concepts and skills in a relevant and practical way; the development of a workplace culture and appreciation of the rapidly changing nature of the workplace, the development of work-related personal attributes (e.g., leadership, co-operation, diplomacy), the development of interpersonal skills, and the establishment of career plans and strategies. It is clear from this research that workplace learning is not just about gaining a deeper understanding of knowledge and skills, but about adopting the cultural and behavioural norms associated with the workplace. It is having a sense of belonging, an understanding of the rules and codes which are sometimes left unspoken. The process of transitioning into a profession can take time; work-place learning can assist students with social integration and identifying with the profession (Bates, Bates, & Bates, 2007).

Professional Identity

An important advantage of WIL is the opportunity to further develop a relevant professional identity, bridging the gap from ‘student’ to ‘professional’ (McNamara et al., 2011; McNamara et al., 2012). Professional identity is described as the relatively stable and enduring constellation of attributes, beliefs, values, motives, and experiences in terms of which people define themselves in a professional role (Ibarra, 1999; Schein, 1978). Social Identity Theory provides a useful framework in understanding professional identity; that is, the part of the self-concept that is derived from group membership (Tajfel & Turner, 1979). Professional identity is a form of social identity that is developed over time, particularly

during transitions between school and work, between jobs (Ibarra, 1999), and continually evolves throughout one's university life and career (Lizzio, 2011; O'Connor, Hansen & White, 2008; White, O'Connor, & Hamilton, 2011). Dunlap (2005) suggests that students first learn about their profession via formal education; the culture of the classroom where the student gathers knowledge on a structural level. The application of applying theory to professional practice is where the development of values, attitudes, and self-identity are learned via social learning processes (Dunlap, 2005; Green et al., 2016). WIL or capstones involving professionals can provide an important opportunity to obtain insight into the profession, such as the values, beliefs and skills that are shared between the group (Adams, Hean, Sturgis, & Macleod Clark, 2006)

Professional identity and the sense of working towards a professional identity and/or professional outcome, is core for many university students. Developing a professional identity can assist students in the transition from education to the workplace by providing structure and predictability, in turn, enabling individuals to gain self-confidence as they know what to think, feel, and behave as a member of their profession (Coster et al., 2008; Hogg, 2000). While current research is limited regarding providing educators with strategies to build professional identity in the capstone experience (e.g., McNamara et al., 2011), it would seem likely that work placements could play an important role in developing professional identity in final year students. Dunlap (2005) found that information technology students on the completion of a problem-based learning capstone course no longer referred to themselves as students but as software developers, and scored higher on general perceived self-efficacy after the course.

First-year students from other health professions have scored relatively high on professional identity (e.g., Adams et al., 2006, Coster et al., 2008), which is not surprising given that direct entry to relevant careers or registration is available to all or a large majority

of health graduates. Adams et al. (2006) found the best predictors of baseline professional identity among health and social care students were: gender, profession, previous work experience in the field, understanding of team working, knowledge of the profession, and cognitive flexibility. One clear advantage for students in health faculties is the integration of knowledge and practical placements in their chosen health care professional field.

Professional identity in psychology graduates is a particularly important issue to address. In Australia, psychology programs may be situated in Faculties of Science, Arts, Social Science, or more recently in Faculties of Health, with no single clear professional identity promoted during their undergraduate degrees. Typically, undergraduate psychology students are often focused on the role of psychologist, one that many will never assume and one that they are not able to experience directly through internships or placement. Further, these students are rarely given the opportunity to apply their knowledge and skills in a professional setting relevant to a three-year graduate (such as a placement in government or community settings).

According to Lizzio (2011), the development of a professional identity that emerges during the undergraduate education is an important step in the student lifecycle. Irrespective of whether a psychology graduate goes onto become a psychologist or not, an identity of being a *psychology graduate* with the ability to apply psychological knowledge in a variety of work contexts and settings is important. To deny students a professional identity on the basis of not being able to progress to become a registered psychologist is a dis-service and devalues the undergraduate psychology education. While the term *applied behavioural practitioner* (Cranney & Botwood, 2012) has not been taken up widely in Australia, the terms *psychological assistant* and *psychological scientist* continue to be discussed. However, while these terms are typically used to describe a research assistant or junior person assisting in an inquiry-based field, these terms are being used more actively elsewhere. For example, in the

UK *psychological assistant* is used to describe graduates from three-year undergraduate degrees in psychology who gain employment in a range of social and health care settings, while the term *psychological scientist* is gaining popularity in the USA, especially in traditional or applied research settings. However, there are still no readily available terms to describe the students who will enter other common occupation areas; for example business (Human Resources, marketing) and community (program coordinator, caseworker) related jobs. Therefore, the identity of being a *psychologically literate citizen* may be the most appropriate and best professional identity to encourage during the undergraduate years.

It is important that the tasks carried out by the student whilst on placement are achievable and benefit the organisation so as to increase efficacy as a competent professional (Bates et al., 2007). Gaining an understanding of the workplace through cultural and behavioural norms (e.g., dress code and other unspoken rules) can be of great benefit by providing a sense of belonging to the industry (Bates et al.). Through an educational experience which includes a WIL experience, together with employment opportunities, other life experiences and student motivation and commitment, the basis for a professional identity can begin to be formed (e.g., Bates et al.).

Personal and Professional Self-Efficacy

Professional identity and employability skills are developed over the course of a career including study, paid and unpaid employment, as well as community work (DEST, 2004). Personal beliefs about confidence and ability are essential when learning and developing these skills (e.g., Dunlap, 2005; Freudenberg, Brimble, Vyvyan, & Corby, 2008). This self-belief is referred to as self-efficacy, an important determinant of job performance (Bandura & Locke, 2003). Self-efficacy is defined as a belief in one's ability to succeed in a particular situation (Bandura, 1977). Confidence in being able to act has been shown to be important in executing novel or resource-demanding behaviours (Moss, Hamilton, White, &

Hansen, 2015), including in periods of transition (Cowie & Hamilton, 2014). Self-efficacy is therefore important as graduates begin the transition into the workplace. Individuals with a strong sense of self-efficacy will look to master challenges and tend to recover more quickly from setbacks and disappointments (e.g., Lunenburg, 2011).

Some of the ways in which educators can assist students to increase their self-efficacy is through: (1) *mastery experience*: providing challenging opportunities, coaching and professional development, supportive leadership, reflective practice; (2) *vicarious experience*: providing observational opportunities and social comparison; (3) *verbal persuasion*: instilling confidence in the student's ability to perform by providing realistic feedback and encouragement; and (4) *emotional cues*: increasing awareness of physiological state, reflective journaling (e.g., Bandura, 1977; Dunlap, 2005; Freudenberg et al., 2008; Lunenburg, 2011). Thus, a capstone/WIL experience can potentially help to increase one's sense of self-efficacy.

Dunlap (2005) found a significant shift in confidence among computer science students after completing a capstone course. Students were exposed to 'real-world' problems and encouraged to collaborate with other students to problem-solve and challenge others' thinking. In another study, Freudenberg et al. (2008) measured self-efficacy in business students who had participated in a WIL experience; a Student Industry Conference. The conference was created to improve students' self-efficacy in financial planning, presentation, and communication skills through mastery, modeling, and verbal persuasion. Students were required to present their research papers to students, academics, and industry representatives, listen to key note speakers, and participate in networking activities. Fifty-three percent of students reported a 'significant' or 'great' improvement in their confidence to perform effectively on many different tasks and forty-one percent of students reported that the event had increased their confidence regarding transitions to the workforce.

However, there is also preliminary research to indicate that WIL may not bolster all facets of work self-efficacy. A pilot study of Australian psychology undergraduates found that students' post-WIL self-ratings on work self-efficacy subscales of learning, pressure, role expectations, and sensitivity, were lower compared to the same cohort's pre-WIL ratings and the self-ratings from students not completing WIL. These findings may indicate that WIL exposes learners to the complexities of the workplace, whereby they encounter challenges in-situ against a workplace backdrop that may involve tensions between colleagues or other workplace politics to consider, that they were not prepared for. The consequences of such workplace factors may mean that WIL assists students to understand the complexity of work and that, rather than overestimating their skills in these areas, they adjust their self-evaluations based on these rich experiences (Bates, Nguyen, Sawhney, & O'Connor, 2014).

Capstone courses offer students opportunities to integrate previous learning, and apply this to new experiences in preparation for transition from tertiary studies to the workforce (Bailey et al., 2007). Capstones that expose students to vicarious learning through collaboration with industry professionals, provide challenging activities and constructive feedback, and offer reflective activities such as journal writing, can improve individual self-efficacy which, in turn, may contribute to smoother transitions to the workforce (Bailey et al; Dunlap, 2005; Freudenberg et al., 2008). The process of applying theory to real-world problems expands and builds a deeper level of learning, rather than just a surface approach (e.g., Bailey et al; Prosser & Trigwell, 1999). It is through this experience that students can begin to understand how previous knowledge can be applied to novel and complex problems, building personal and professional self-efficacy as they transition to industry professionals. These benefits are particularly important to a cohort with multiple but poorly defined career outcomes, such as undergraduate psychology students.

Implications for Higher Education, Industry Professionals, and the Future Workforce

Given the above evidence, higher education institutions have a responsibility to provide students with an education that will not only prepare them to adapt and survive in a rapidly changing world but also enable viable options for fulfilling future career paths (Bryan, Ranzijn, Balfour, Tuckey, Hayward, Pearson et al., 2012; Cranney, Provost, Katsikitis, Martin, White, & Cohen, 2008). Educators in psychology have an obligation to inform students as to how the scientific basis of psychology can lead to a psychologically literate community, and how psychological literacy can contribute to a wide-range of career prospects beyond those related to registration as a professional psychologist (Goedeke & Gibson, 2011). Psychology educators must create opportunities for students to build professional networks prior to graduation (Bridgstock, 2016), an endeavor which is also likely to enrich the landscape of the university. Further, the program must focus not just on a capstone that prepares students to transition into honours or postgraduate degrees but one informed by the relevant career pathways after a three-year degree, if offered at the institution.

Key characteristics of a program that would meet the needs of these graduates would include a review of alumni career pathways to inform the selection of industry partners. Course leaders may engage their alumni in advisory panels for this purpose. It may be that between regions there are different relevant three-year career outcomes. The development of capstone experiences should focus on identities relevant to the three-year graduate in the relevant region. Through our own evaluations of three-year graduate pathways (including alumni searches), students often find work as human resource officers, program managers in the community sector, casework officers alongside colleagues from the human services and research assistants. Professional identities could also include that of psychological scientist or researcher (terms commonly used in the USA). These career paths offer excellent opportunities to use the training from a psychology undergraduate degree and could inform

industry relevant case studies for learning activities or assessment. Suitable capstone experiences would include contact with industry (either through WIL or otherwise) which required the students to actively address a genuine need of the professional partner. Ideally, the professional partner would be involved in the design and evaluation of assessment (directly or indirectly). Tasks that formed the learning activities and assessment would reflect genuine tasks completed by professionals in the relevant area, with variations of common tasks that would allow the student to select the type of professional they wish to explore.

The capstone/WIL experience is of great benefit not only to graduating students but also to industry leaders and tertiary institutions. For industry professionals working collaboratively with students, the capstone experience can provide an opportunity to discover emerging, talented, and motivated new recruits who can be a rich resource of novel and fresh ideas. University-industry collaborations can provide a platform for profiling organisations and professional roles to students and educators through guest lectures, networking, collaborative research projects, and other opportunities such as scholarships (Bates, 2005; Pusateri, Halonen, Hill, & McCarthy, 2009). Freudenberg et al. (2008) found industry leaders were suitably impressed with the capabilities of student graduates who participated in a student-industry conference (i.e., a WIL experience), and praised the University for being an innovative leader in the field of financial planning.

The implementation of capstones with WIL elements has significant potential; however, careful implementation will be critical to achieve the best outcomes for students, their communities, and the profession. A recent OLT project examining best-practice WIL case studies has identified a range of recommendations for design and implementation of WIL (Sachs, Rowe, & Wilson, 2017). In many areas, adequately staffing WIL requires a commitment of significant resources, and alternative (less costly) WIL approaches such as peer mentoring may be just as successful in improving the work readiness of graduates.

Australia's psychology graduates are potential ambassadors for psychology as well as future leaders in their communities, and many will contribute to our future health workforce. Higher Educational institutions need to ensure students are exposed to relevant work experience opportunities through the undertaking of a capstone course. Such an experience will help students enhance their employability and work readiness skills, develop a sense of professional identity, and strengthen their personal and professional self-efficacy (Bates, 2005; McNamara et al., 2012). To produce psychologically literate graduates, who understand and can articulate the value of their degrees, and who are ready for employment in a wide variety of settings, we argue that is not just desirable, but essential, for all undergraduate psychology degree programs to offer a capstone course in the final year which includes a WIL experience.

References

- ACNielsen Research Services. (2000). *Employer satisfaction with graduate skills: Research report* (Report No. 99/7). Canberra, ACT: Evaluations and Investigations Programme of the Department of Education, Training and Youth Affairs.
- Adams, K., Hean, S., Sturgis, P., & Macleod Clark, J. (2006). Investigating the factors influencing professional identity of first-year health and social care students. *Learning in Health and Social Care*, 5, 55-68. doi:10.1111/j.1473-6861.2006.00119.x
- Atlay, M. & Harris, R. (2000). An institutional approach to develop students' transferable skills. *Innovations in Education and Training International*, 37 (1), 76-84.
- Australian Chamber of Commerce and Industry and the Business Council of Australia (2002). *Employability skills for the future*. Canberra, Australia.
- Australian Psychological Society (APS). (2012). *Other careers with an undergraduate psychology degree*. Retrieved from <http://www.psychology.org.au/studentHQ/careers/other-careers/>
- Bailey, J., Oliver, D., & Townsend, K. (2007). Transition to practitioner: Redesigning a third year course for undergraduate business students. *Journal of Management and Organisation*, 13, 65-80. doi: [10.1017/S1833367200003916](https://doi.org/10.1017/S1833367200003916)
- Baker, L, Caldicott, J & Spowart, J . (2011), 'Cooperative and work-integrated education in hospitality and tourism', in International handbook for cooperative and work-integrated education, 2nd edn, eds RK Coll & KE Zegwaard, World Association for Cooperative Education, Hamilton, NZ.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, 84, 191-215. doi: [10.1037/0033-295X.84.2.191](https://doi.org/10.1037/0033-295X.84.2.191)
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology*, 88, 87-99. doi: [10.1037/0021-9010.88.1.87](https://doi.org/10.1037/0021-9010.88.1.87)

- Bates, L. (2005). *Building a bridge between university and employment: Work-integrated learning*. Brisbane, Australia: Queensland Parliamentary Library.
- Bates, A., Bates, M., & Bates, L. (2007). Preparing students for the professional workplace: Who has responsibility for what? *Asia-Pacific Journal of Cooperative Education*, 8, 121-129.
- Bates, L., Nguyen, H., Sawhney, J., & O'Connor, E.L. (2014) The effect of work-integrated learning in highlighting the complexity of work: a pilot study of work self-efficacy. In Moore, K. (Ed.) *Work Integrated Learning: Building Capacity – Conference Proceedings of the 2014 ACEN National Conference*, Australian Collaborative Education Network (ACEN) Limited, Tweed Heads, NSW, pp. 21-25.
- Billet, S. (2009). Realising the educational worth of integrating work experiences into higher education. *Studies in Higher Education*, 34, 827-843. doi: [10.1080/03075070802706561](https://doi.org/10.1080/03075070802706561)
- Blaxell, R., & Moore, C. (2012). *Connecting academic and employability skills and attributes*. In developing student skills for the next decade. Proceedings of the 21st Annual Teaching Learning Forum, 2-3 February, Perth: Murdoch University. <http://otl.curtin.edu.au/tlf/tlf2012/refereed/blaxell.htm>
- Bond, N. (2016). Report on the outcomes of the ‘Workplace Activities/Capstone Project/Internship’ questionnaire. Prepared for the Heads of Departments and Schools of Psychology Association (HODSPA): Melbourne.
- Borden, V. M. H., & Rajcecki, D. W. (2000). First-Year Employment Outcomes of Psychology Baccalaureates: Relatedness, Preparedness, and Prospects. *Teaching of Psychology*, 27, 164-168. doi: 10.1207/S15328023TOP2703_01
- Bridgstock, R.S. (2016). The university and the knowledge network: A new educational model for 21st century learning and employability. In Tomlinson, M. (Eds.) *Graduate*

Employability in Context: Research, Theory and Debate. Palgrave Macmillan, London.

Bryan , J., Ranzijn, R., Balfour, C., Tuckey, M., Hayward, R., Pearson, E., et al. (2012).

Increasing the work-readiness of Australian psychology undergraduates by changing the curriculum. In S. McCarthy, J. Cranney, K. L. Dickson, A. Trapp & V.

Karandashev (Eds.), *Teaching psychology around the world* (Vol. 3). Newcastle upon Tyne: Cambridge Scholars Publishing.

Burton, L., Chester, A., Xenos, S. & Elgar, K. (2013). Peer mentoring to develop psychological literacy in first year and graduating students. *Psychology Learning and Teaching*, Vol 12, 2, 136-146.

Caballero, C., & Walker, A. (2010). Work readiness in graduate recruitment and selection: A review of current assessment methods. *Journal of Teaching and Learning for Graduate Employability*, 1, 13-25.

doi:<http://hdl.handle.net/10536/DRO/DU:30030444>

Caballero, C., Walker, A., & Fuller-Tyszkiewicz, M. (2011). The Work Readiness Scale (WRS): Developing a measure to assess work readiness in college graduates. *Journal of Teaching and Learning for Graduate Employability*, 2, 41-54. doi:

<http://hdl.handle.net/10536/DRO/DU:30036677>

Carless, S. A. (2007). Graduate recruitment and selection in Australia. *International Journal of Selection and Assessment*, 15, 153-166. doi: 10.1111/j.1468-2389.2007.00377.x

Casner-Lotto, J. & Barrington, L. (2006). Are they really ready to work? Employers' perspectives on the basic knowledge and applied skills of new entrants in the 21st century US workforce. USA: The Conference Board, Inc., the Partnership for the 21st Century Skills, Corporate Voices for Working Families, and the Society for Human Resource Management.

- Charlton, S., & Lymburner, J. (2011). Fostering psychologically literate citizens. In J. Cranney & D. S. Dunn (Eds.), *The psychologically literate citizen* (pp. 234-248). New York: Oxford University Press.
- Chester, A., Burton, L.J., Xenos, S., & Elgar, K. (2013). Peer mentoring: Supporting successful transition for first year psychology students. *Australian Journal of Psychology*, 65, 30-37.
- Coster, S., Norman, I., Murrells, T., Kitchen, S., Meerabeau, E., Sooboodoo, E., et al. (2008). Interprofessional attitudes amongst undergraduate students in the health professions: A longitudinal questionnaire survey. *International Journal of Nursing Studies*, 45, 1667-1681.
- Cowie, E., & Hamilton, K. (2014). Key beliefs related to decisions for physical activity engagement among first-in-family students transitioning to university. *Journal of Community Health*, 39, 719-726. doi: 10.1007/s10900-013-9817-3
- Cranney, J., & Botwood, L. (2012). *Review of the aims, outcomes and accreditation standards for Australian undergraduate psychology education*. Retrieved from http://www.groups.psychology.org.au/Assets/Files/CranneyBotwood_Green_Paper_UG_Psych_Ed_Final_180612.pdf
- Cranney, J., & Dunn, D. (2011). *The psychologically literate citizen: Foundations and global perspectives*. New York: Oxford University Press.
- Cranney, J., Morris, S., Martin, F. H., Provost, S., Zinkiewicz, J. R., Milne-Home, J., et al. (2011). Psychological literacy and applied psychology in undergraduate education. In J. Cranney & D. S. Dunn (Eds.), *The psychologically literate citizen* (pp. 146-466). New York: Oxford University Press.

- Cranney, J., Provost, S., Katsikitis, M., Martin, F., White, F., & Cohen, L. (2008). *Designing a diverse, future-orientated vision for undergraduate psychology in Australia: Final investigation report*. Sydney: Australian Learning and Teaching Council.
- Cranney, J., Turnbull, C., Provost, S. C., Martin, F., Katsikitis, M., White, F. A., et al. (2009). Graduate attributes of the 4-year Australian undergraduate psychology program. *Australian psychologist*, 44, 253-262. doi: 10.1080/00050060903037268
- Crebert, G., Bates, M., Bell, B., Patrick, C-J., & Cragolini, V. (2004). Developing generic skills at university, during work placement and in employment: Graduates' perceptions. *Higher Education Research & Development*, 23, 147-165. doi: 10.1080/0729436042000206636
- Department of Education Employment and Workplace Relations (DEEWR). (2010). Skill shortages Australia June 2010. Retrieved from <http://www.deewr.gov.au>
- Department of Education, Employment and Workplace Relations (DEEWR). (2012). *Employability skills*. Retrieved from <http://www.deewr.gov.au/schooling/careersandtransitions/employabilityskills>
- Department of Education Science and Training (DEST). (2002). *Employability skills for the future*. Retrieved from <http://www.deewr.gov.au/Schooling/CareersandTransitions/EmployabilitySkills/Documents/EmpSkillsForTheFuture.pdf>
- Department of Education Science and Training (DEST). (2004). Development of a strategy to support the universal recognition and recording of employability skills: A skills portfolio approach. Retrieved from <http://www.deewr.gov.au/Schooling/CareersandTransitions/EmployabilitySkills/Documents/FinalReportAllenConsulting.pdf>

- Dunlap, J. C. (2005). Problem-based learning and self-efficacy: How a capstone course prepares students for a profession. *Educational Technology, Research and Development*, 53, 65-85. doi: 10.1007/BF02504858
- Dunn, D. S., & McCarthy, M. A. (2010.). The capstone course in psychology as liberal education opportunity. In d. S. Dunn, B. C. Beins, M. A. McCarthy & G. W. Hill (Eds.), *Best practices for teaching beginnings and endings in the psychology major: research, cases, and recommendations*. New York: Oxford University Press.
- Freudenberg, B., Brimble, M., & Vyvyan, V. (2010.). The penny drops: Can work integrated learning improve students' learning? *e-Journal of Business Education & Scholarship of Teaching*, 4, 42-61.
- Freudenberg, B., Brimble, M., Vyvyan, V., & Corby, D. (2008). A penny for your thoughts: Can participation in a student-industry conference improve student's presentation self-efficacy and more? *International Journal of Learning*, 15, 187-200.
- Gabb, A. (1997). University challenge. *Management Today*. (1 December 1997), 62-64.
- Gaither, G. A., & Butler, D. L. (2005). Skill development in the psychology major: What do undergraduate students expect? *College Student Journal*, 39, 540-552.
- Gardner, P. D., & Liu, W. (1997). Prepared to perform? Employers rate work force readiness on new grads. *Journal of Career Planning and Employment*, 57, 32-56.
- Goedeke, S., & Gibson, K. (2011). What do new psychology students know about psychology. *Australian Psychologist*, 46, 133-139. doi: 10.1111/j.1742-9544.2011.00028.x
- Graduate Careers Australia. (2012). *Category Archives: Psychology*. Retrieved from <http://www.graduatecareers.com.au/category/education-field/psychology/>
- Graduate Careers Australia. (2015). *Graduate Destinations: A report on the work and study outcomes of recent higher education graduates*. Retrieved from

<http://www.graduatecareers.com.au/wp-content/uploads/2016/07/Graduate-Destinations-Report-2015-FINAL1.pdf>

- Green, R., Conlon, E., & Morrissey, (2016). Task values and self efficacy beliefs of undergraduate psychology students. *Australian Journal of Psychology*, doi: 10.1111/ajpy. 12125
- Hambur, S., Rowe, K. & Luc, L. T. (2002). Graduate skills assessment: Stage one validity study. Report by Australian Council for Educational research (ACER) for Evaluations and Investigation Program. Canberra, ACT: Commonwealth Department of Education, Science and Training.
- Hart, P. D. (2008). How should colleges assess and improve student learning? Employers' views on the accountability challenge. A survey of employers conducted on behalf of: The Associations of American Colleges and Universities. Washington, DC: Peter D. Hart Research Associates, Inc.
- Hauhart, R. C., & Grahe, J. E. (2010). The undergraduate capstone course in the social sciences: Results from a regional survey. *Teaching Sociology*, 38, 4-17. doi: 10.1177/0092055X09353884
- Hogg, M. A. (2000). Subjective uncertainty reduction through self-categorisation: A motivational theory of social identity processes. *European Review of Social Psychology*, 11, 223-255. doi: 10.1080/14792772043000040
- Ibarra, H. (1999). Provisional selves: Experimenting with image and identity in professional adaptation. *Administrative Science Quarterly*, 44, 764-791. doi 10.2307/2667055
- Jackson, D. (2013). The contribution of work-integrated learning to undergraduate employability skill outcomes. *Asia-Pacific Journal of Cooperative Education*, 14, 99-115.

- Jackson, D., & Wilton, N. (2016). Developing career management competencies among undergraduates and the role of work-integrated learning. *Teaching in Higher Education, 21*, 266-286. doi: 10.1080/13562517.2015.1136281
- Jervis, K. J., & Hartley, C. A. (2005). Learning to design and teach an accounting capstone. *Issues in Accounting Education, 20*, 311-339. doi: <http://dx.doi.org/10.2308/iace.2005.20.4.311>
- Johnson, J., Close, W., Kite, M., & Tuskenis, A. (2011). *Capstone experiences in undergraduate psychology: Report from the Capstone Project Team*. Handout from a Symposium conducted at the Annual Meeting of the American Psychological Association, Washington, DC.
- Johnson, J., Tuskenis, A., & Dyslin, C. (2011). *Efficacy on a new capstone course in an undergraduate psychology program*. Paper presented at the American Psychological Association, Washington, DC.
- Jollands, M., Clarke, B., Grando, D., Hamilton, M., Smith, J., Xenos, S., Carbone, A., Burton, L., Brodie, M., & Pocknee, C. (2015). Developing graduate employability through partnerships with industry and professional associations: Final report. Sydney: Australian Government Office for Learning and Teaching.
- Jollands, M. (2015a). A framework for graduate employability adapted for discipline differences. In Proceedings of the Higher Education Research and Development Society of Australia Conference (HERSA 2015), Melbourne July 6-9.
- Jollands, M. (2015b). Effectiveness of placement and non-placement work integrated learning in developing students' perceived sense of employability. In Proceedings of the 26th Annual Conference of the Australasian Association for Engineering Education (AAEE2015), Australia, 6-9 December, 2015, p 1-11.

Karantzas, G., Macfarlamne, S., Tooley, G., Mussap, A., Hazxelwood, Z. and Fitness, J.

(2014). Shaping the future of psychology through developing and assessing graduate attributes using collaborative learning. Sydney: Australian Government Office for Learning and Teaching.

Kift, S., Bailey, J., Andrews, L., Gray, D., van Acker, E., & Woods, P. (2011). *Capstone courses: What is their place in a "transition pedagogy" for final year students?* Paper presented at the Symposium presented at the HERDSA Annual Conference, Gold Coast.

Kinash, S., Crane, L., Capper, J., Young M. & Stark, A. (2017). When do university students and graduates know what careers they want: A research derived framework. *Journal of Teaching and Learning for Graduate Employability*, 8, (1), 3-21

Littlefield, L. (2016). Psychology education and training: A future model. *InPsych* 38(2), 8-18.

Lizzio, A. (2011). The student lifecycle: An integrative framework for guiding practice.

Retrieved from <http://app.griffith.edu.au/assessmentmatters/pdfs/student-lifecycle-framework.pdf>

Lunenburg, F. C. (2011). Self-efficacy in the workplace: Implications for motivation and performance. *International Journal of Management, Business, and Administration*, 14, 1-5.

McCrindle Research (2014). Generation z commence university: Choosing the right course.

Downloaded from http://www.mccrindle.com.au/SocialAnalysis/2014/Generation-Z-Commence-University_Choosing-the-Right-Course_McCrindle-Research.pdf

McGovern, T. V., Corey, L. A., Cranney, J., Dixon, W. E., Holmes, J. D., Kuebli, J. E., et al. (2010). Psychologically literate citizens. In D. F. Halpern (Ed.), *Undergraduate*

- education in psychology: Blueprint for the discipline's future* (pp. 9-28). Washington, D. C.: American Psychological Association.
- McNamara, J., Brown, C., Field, R., Kift, S., Butler, D., & Treloar, C. (2011). *Capstones: Transitions and professional identity*: Queensland University of Technology, Faculty of Law.
- McNamara, J., Kift, S. M., Butler, D. L., Field, R. M., Brown, B., & Gamble, N. (2012). Work-integrated learning as a component of the capstone experience in undergraduate law. *Asia-Pacific Journal of Cooperative Education*, 13, 1-12.
- Michael, S. (2012). 'Overqualified' graduates struggle to find work. Retrieved from www.news.com.au
- Moss, N. D, Hamilton, K., White, K. M., & Hansen, J. (2015). The changing motivations of students' use of lecture podcasts across a semester: an extended Theory of Planned Behaviour approach. *Innovations in Education and Teaching International*, 52, 599-609. doi: 10.1080/14703297.2012.746513
- Neary M. & Winn J. (2009). The student as producer: Reinventing the student experience in higher education. In M. Neary, H. Stevenson, & L. Bell (Eds.), *The Future of Higher Education: Pedagogy, Policy, and the Student Experience* (pp. 126-138). London: Continuum.
- O'Connor, E. L., & Hansen, J. A. (2009). Clarifying expectations of psychology students through professional engagement: An Australian case study. In S. McCarthy, V. Karandashev, M. Stevens, A. Thatcher, J. Jaafar, K. Moore, A. Trapp & C. Brewer (Eds.), *Teaching Psychology Around the World* (Vol. 2, pp. 247-265). Newcastle, UK: Cambridge Scholars Publishing.
- O'Connor, E. L., Hansen, J. A., & White, K. M. (2008). *Improving the 'work readiness' of undergraduate psychology students through a final-year volunteer placement*. Paper

presented at the Effective teaching and Learning Conference, 30-31 October:
Brisbane, Australia.

- Patrick, C., Peach, D., Pocknee, C., Webb, F., Fletcher, M., & Pretto, G. (2009). *Work-integrated learning: A national scoping study*. Prepared for the Australian Learning and Teaching Council. Brisbane, Australia: Queensland University of Technology.
- Perlman, B., & McCann, L. I. (1999). The structure of the psychology undergraduate curriculum. *Teaching of Psychology*, 26, 171-176. doi: 10.1207/S15328023TOP260302
- Prosser, M., & Trigwell, K. (1999). *Understanding learning and teaching*. Buckingham: SRHE and Open University Press.
- Pusateri, T., Halonen, J., Hill, B., & McCarthy, M. (2009). *The assessment cyberguide for learning goals and outcomes*. (2nd ed.). Washington, DC: American Psychological Association Education Directorate.
- Reddy, P., & Moores, E. (2006). Measuring the benefits of a psychology placement year. *Assessment and Evaluation in Higher Education*, 31, 551-567. doi: 10.1080/02602930600679555
- Richardson, J., Kaider, F., Henschke, K., & Jackling, B. (2009, July). *A framework for assessing work integrated learning*. Paper presented at the The Student Experience, Proceedings of the 32nd HERDSA Annual Conference, Darwin.
- Roth, P. L., & Bobko, P. (2000). College grade point average as a personnel selection device. Ethnic group differences and potential adverse impact. *Journal of Applied Psychology*, 85, 399-406. doi: 10.1037/0021-9010.85.3.399
- Rowley, M., Hartley, J., & Larkin, D. (2008). Learning from experience: The expectations and experiences of first-year undergraduate psychology students. *Journal of Further and Higher Education*, 32, 399-413. doi: 10.1080/03098770802538129

- Sachs, J. Rowe, A., & Wilson, M. (2017). *Good practice report: Work-integrated learning*. Office of Learning and Teaching. Retrieved from <http://www.olt.gov.au/resources/good-practice?text=work+integrated+learning>.
- Schein, E. H. (1978). *Career dynamics: Matching individual and organizational needs*. Reading, MA: Addison-Wesley.
- Stewart, J. & Knowles, V. (1999). The changing nature of graduate careers. *Career Development International*, 5(1), 21-38.
- Stoloff, M., McCarthy, M., Keller, L., Varfolomeeva, V., Lynch, J., Makara, K., et al. (2010). The undergraduate psychology major: An examination of structure and sequence. *Teaching of Psychology*, 37, 4-15. doi: 10.1080/00986280903426274
- Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (pp. 33-47). Monterey: Brooks-Cole.
- Trapp, A., Banister, P., Ellis, J., Latta, R., Miell, D., & Upton, D. (2011). The future of undergraduate psychology in the United Kingdom. York, United Kingdom: Higher Education Academy Psychology Network.
- Upton, D., & Trapp, A. (2010). *Teaching psychology in higher education*. Chichester: BPS Blackwell.
- van Acker, L., & Bailey, J. (2011). Embedding graduate skills in capstone courses. *Asian Social Science*, 7, 69-76. doi: 10.5539/ass.v7n4p69
- Von Treuer, K., Sturre, V., Keele, S., & McLeod, J. (2011). An integrated model for the evaluation of work placements. *Asia-Pacific Journal of Cooperative Education*, 12, 196-204.
- White, K.M., O'Connor, E.L., & Hamilton, K. (2011). Ingroup and role identity influences on the initiation and maintenance of students' voluntary attendance at peer study sessions

for statistics. *British Journal of Educational Psychology*, 81, 325-343. doi:

10.1348/000709910X513258

Xenos, S., Chester, A., & Burton, L. (2013). Transition In Transition Out (TiTo): Using peer mentoring to assist graduating students transition beyond university. Proceedings of the International Psychological Applications Conference and Trends 2013, Madrid, Spain.