

# Psychological Literacy and Learning for Life

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## Abstract

There is a growing motivation within the higher education sector to ensure that undergraduate programmes produce graduates who are employable, and who contribute to society. Within psychology, the developing concept of psychological literacy has been utilised to meet this agenda, and psychology curricula are increasingly focused on teaching students to apply psychology to meet their personal, professional, and societal goals. In this chapter, we introduce the related concepts of psychological literacy and psychologically-literate citizenship, and review some of the salient literature. We suggest that teaching for psychological literacy provides the opportunity to enhance students' scientific literacy, critical thinking, employability, and global citizenship, and we present some practical ways in which educators around the globe have taught their students to become psychologically literate, drawing on case studies as well as published literature. Finally, we explore the lessons we have learned from our review of the relevant literature and of these practices, and offer a critical perspective on the current state of the discipline, in terms of psychology education. In recognising and valuing the opportunities presented by the framework of psychological literacy, we suggest that we need to reflect upon the nature of psychology and its position as a discipline, and to develop our own psychological literacy. In particular, we must grow our respect for diversity and inclusive practices, and be collegiate in further developing and disseminating our thinking and practices around psychological literacy. We hope that this chapter will provoke a continued discussion of the ways in which psychological literacy can promote students' "learning for life", and will serve as a call to action for the psychology education community to further develop our thinking and practices in this field.

Keywords: Psychological literacy; Personal development; Employability; Global citizenship; Curriculum

## Introduction

According to Horan (2018), higher education serves three fundamental purposes: to preserve eternal truths (i.e., to disseminate important subject knowledge); to create new knowledge (through research and development activities); and to perform a service to humanity (i.e., to facilitate the application of both new and old knowledge for the public good). Likewise, Boyer (1990, pp. 77-78) suggests that:

The aim of education is not only to prepare students for productive careers, but also to enable them to live lives of dignity and purpose; not only to generate new knowledge, but to channel that knowledge to humane ends; not merely to study government, but to help shape a citizenry that can promote the public good. Thus, higher education's vision must be widened if the nation is to be rescued from problems that threaten to diminish permanently the quality of life.

In this chapter, we will explore the ways in which psychology education, through the related lenses of psychological literacy and psychologically-literate citizenship, can be utilised to deliver these aims and purposes to psychology students, with a particular focus on undergraduate education. First, we will provide some historical context, exploring the evolving focus of psychology education in recent years, and briefly introducing the theoretical concepts of psychological literacy and psychologically-literate citizenship. We will then focus in more depth on what psychological literacy brings to students in terms of the purposes of higher education, before considering some practical strategies, challenges and opportunities in the delivery of psychological literacy within psychology education.

## Purposes and Rationale

### Context

Traditional undergraduate psychology education, in many countries, is the foundation level of study that prepares students for subsequent professional training as a psychologist at postgraduate level. As such, it has focused primarily upon the delivery of core content, such as social, cognitive, biological, and developmental psychology, and upon the ability to conduct research and analyse data. It could be argued that, historically, psychology fulfilled the first two of Horan's fundamental purposes, leaving the application of psychology for the public good to be studied in specific professional contexts (such as clinical and educational psychology). However, in countries that follow this model of psychological education and training (e.g., the UK, Australia, the US), it is apparent that a majority of psychology graduates follow alternative career paths beyond psychological research and registered practice as a psychologist, with only around 20% entering psychology professions. Psychology graduates outside of professional psychology pursue diverse careers, including health and social care, education, local government, management, and commerce. As such,

undergraduate psychology needs to be broad-based, preparing graduates for varied and unknown career pathways.

At the same time, the world is changing, with the rapid development of new knowledge, technology, job roles and career paths, and new societal problems to solve (Maree, 2017). In this context, psychology educators must equip students with the skills, knowledge and attributes to be prepared for career changes and transitions. That is, students need to be able to apply their psychological education to the challenges and opportunities in these changing situations, including being able to learn new knowledge and skills. Increasingly, there are calls for higher education to deliver “value” to graduates, which is often translated into economic value in terms of graduate earnings. Psychology graduates frequently seek careers that ‘make a difference’ to society, including helping others (Bromnick & Horowitz, 2013). As a result, these graduates may not accrue large salaries, but may make a significant contribution to the ‘public good’. This tension was recognised recently in the UK-government commissioned Augar review of post-18 education, which called for government to:

“consider the economic value for students and the economy of different higher educational routes, for different people. However, we are clear that successful outcomes for both students and society are about more than pay. Higher levels of education are associated with wider participation in politics and civic affairs, and better physical and mental health. We also understand the social value of some lower-earning professions such as nursing and social care, and the cultural value of studying the Arts and Humanities” (Augar, 2019, p.87).

To some extent, this debate echoes long-standing arguments about the value of higher education, and the nature of employability, which can be argued to be about much more than the ability of graduates to be employed. For example, Yorke (2006, p.8) defined employability as: “... a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy”. This widely-used definition of employability recognises the social value of graduate employability skills, alongside those directly associated with gaining employment.

Nevertheless, there is a need for psychology educators to consider ways of enhancing their students’ employability, alongside their ability to contribute to the public good. Following a brief discussion of employability in psychology, we will turn our attention to the concepts of psychological literacy and psychologically-literate citizenship as useful frameworks to facilitate the delivery of the knowledge, skills, and attributes associated with both economic and social value.

## Employability as an Outcome of Psychology Education

In light of the above-mentioned challenges, it is worth reflecting on the skills that employers desire in the graduates that they employ. Typically, these include self-management and emotional intelligence, business awareness, leadership, critical thinking, problem solving, communication, team work, literacy, numeracy, and technological competence (Oliver & de St Jorre, 2018).

Although psychology education, as described by the majority of international professional and subject-related bodies, should be well-placed to teach these skills (American Psychological Association [APA], 2013; Australian Psychology Accreditation Council [APAC], 2019; BPS, 2019; Quality Assurance Agency [QAA], 2016), we need to ensure that students learn them. Reddy, Lantz and Hulme's (2013) guidelines for psychology educators cite Gaunt's (unpublished) framework for understanding graduate employability in terms of the "4 A's": that is, awareness (or acknowledgement), acquisition, application and articulation. In this model, it is proposed that graduates need all "4 A's" in order to optimise their employability: to be *aware* of the existence of a skill, and to acknowledge its value; to *acquire* the skill, and to be able to put it into practice; to *apply* the skill in new contexts and to solve unfamiliar problems; and to be able to *articulate* their skills in a way that is relevant to an employer or other interested audience. Development of the "4 A's" is not proposed to be linear; students may acquire skills of which they are not fully aware, or they may be able to apply a skill but be unable to articulate it. Traditional, more didactic methods of higher education may facilitate the development of skills awareness and acquisition, but may be less effective in supporting students' ability to apply and articulate their skills. This is evident from research in Australia, suggesting that recent graduates may lack "business awareness" and struggle to solve complex problems (Sarkar, Overton, Thompson, & Rayner, 2016), and from the UK, where employers report that transferability of skills to the workplace and graduates' ability to articulate at interview what they can contribute to a role are problematic (Pollard et al., 2015).

We know that "transfer of learning" to new contexts (e.g., applying psychological theory and research findings to new situations) is a challenging task, and requires practice (Worrell et al., 2010). Given the changing nature of our world, including employment contexts, this kind of skill practice would seem to be important for all graduates, and particularly for psychology graduates, given their diverse and changing career destinations. This perspective also aligns with Barnett's (2011) notion of lifelong and lifewide learning: that is, students need to be given opportunities to learn how to integrate their learning across multiple formal and informal contexts, as well as within their everyday lives, throughout the lifespan. From a practical perspective, psychology educators should focus on scaffolding students' capacity to apply their growing knowledge of psychological topics, as well as their skills in research, critical thinking and interpersonal skills, to increasingly complex human problems. Students then need to articulate these capacities in a way that potential employers understand. This requires the metacognitive capacities of employability, that is, aspects of the "4 A's".

## Thinking Like a Psychologist

As noted above, psychology students are required to become scientifically literate and capable of evaluating information, taking an evidence-based approach to problem solving using psychology. However, based on research in the UK, Hulme and Kitching (2017) suggest that there are particular challenges around this for psychology students, who may study psychology to understand their personal life experiences, which may relate to mental ill health, addictions, previous psychological treatments, or relationship difficulties:

Psychology is an unusual discipline, drawing on natural sciences, social sciences and philosophy (Quality Assurance Agency, 2016). It encompasses all aspects of what it is to be human, covering biology and neuropsychology, social interaction and cultural context, cognitive processing, development from pre-birth to death, all of the things that humans share in common, and all of the ways in which we are diverse. As such, it touches on the life experiences of each and every one of us, and at the same time requires us to study those experiences within an academic context (Hulme & Kitching, 2017, p.4).

Popular psychology and self-help techniques are easily accessible to students through social media, and can encourage students to look for simple answers to complex questions. They may bring their “life to psychology”; to look for confirmation within their academic learning of the things that they believe to be true about themselves, based on their personal experiences. This can create a barrier to scientific and critical thinking. As psychology educators, we must encourage students to learn first about the evidence base provided by psychology, and then take that into their everyday lives, to apply psychology to the personal, professional and societal issues that they face - or to “bring psychology to life”. It is important to recognise the personal relevance of students’ lives to psychology, and to facilitate their self-awareness of the ways in which this personal meaning can impact on their ability to evaluate evidence, and make informed decisions.

Thus, whilst traditional undergraduate psychology education has emphasised the learning outcomes of knowledge comprehension and a moderate level of research skill (including research-associated critical thinking, statistical analysis, and ethics), there is a growing emphasis internationally on shifting psychology-naive students from a pop-psychology orientation to a psychological scientist orientation, which continues to be a major challenge for both traditional and modern approaches to psychology education. This shift can be captured in terms of “thinking like a psychologist”: students must, initially, recognise that psychology requires a different way of thinking that is more than ‘common sense’, and subsequently acquire the skills to apply psychological knowledge to evaluate information, make decisions, and solve problems. Note that in many countries, “psychologist” is a legally protected term, but within the context of this educationally-oriented chapter, we are referring to the mindset that should be uniquely associated with the acquisition of psychological knowledge, skills and attitudes; similarly, educators in other disciplines are encouraging students’ professional identification with their discipline by using terms like “thinking like an astronomer” (Hulme & De Wilde, 2014).

Thus psychology education can be viewed as a process that confers key employability skills upon successful students, some of which are captured within the ability to “think like a psychologist”: to draw upon psychological knowledge, to think critically, and to apply knowledge in new contexts, based upon the psychological evidence base. Collectively, the knowledge, skills, and attributes associated with psychology education have been extensively described through the concepts of psychological literacy and psychologically-literate citizenship, upon which we will now focus.

## Psychological Literacy and Psychologically-Literate Citizenship

The term psychological literacy was first coined by Boneau (1990), who collated the views of psychology text book authors to determine the most important concepts and terms within the discipline of psychology at that time. However, recognising that subject content is fluid and constantly evolving, more recently, the concept has been redefined, in line with Cranney and Dunn’s (2011*b*) definition of literacy as “domain knowledge that is used adaptively” (p.8); that is, people apply knowledge and skills from a discipline (e.g., psychology, information technology, health) to achieve desired goals in their everyday lives.

McGovern et al. (2010) were the first to define psychological literacy in this way, which encompasses components beyond Boneau’s (1990) knowledge-centric definition. They outlined nine attributes that might be acquired by undergraduate students of psychology (see Table 1).

*Table 1: The components of psychological literacy (McGovern et al., 2010, p11).*

	<b>Psychological Literacy</b>
1.	Having a well-defined vocabulary and basic knowledge of the critical subject matter of psychology
2.	Valuing the intellectual challenges required to use scientific thinking and the disciplined analysis of information to evaluate alternative courses of action
3.	Taking a creative and amiable skeptic approach to problem solving
4.	Applying psychological principles to personal, social, and organizational issues in work, relationships, and the broader community
5.	Acting ethically
6.	Being competent in using and evaluating information and technology
7.	Communicating effectively in different modes and with many different audiences
8.	Recognizing, understanding, and fostering respect for diversity
9.	Being insightful and reflective about one’s own and others’ behavior and mental processes

The knowledge, skills and attributes contained within McGovern et al.’s list have been differently interpreted by different professional bodies around the globe, but there is some consensus that psychological literacy encompasses psychological subject knowledge,

scientific literacy, information literacy, critical thinking, ethics, reflective skills, and an ability to apply psychology to issues in everyday life. This list has much in common with our previous list of desirable employability skills.

A broader definition that neatly captures this was proposed by Cranney and colleagues (e.g., Cranney & Dunn, 2011*b*; Cranney & Morris, in press), who suggested that psychological literacy is the capacity to intentionally and adaptively use psychology to achieve personal, professional and societal goals. Similarly, Murdoch (2016) discusses psychological literacy in terms of the “ethical application of psychological skills and behaviour” (p. 189), which is comprised of: the psychology-specific aspects of a set of “generic literacies” (e.g., critical thinking, statistical literacy, multicultural literacy); psychology-specific skills and knowledge; and the ability to apply all of these skills and knowledge to personal, occupational and societal issues.

The importance of the application of psychology to “personal, occupational and societal goals” is thus a recurring theme within the psychological literacy literature. McGovern et al. (2010) suggested that this common interest in taking a psychologically-informed approach to solving global problems in a pro-social and ethical way could be described within a separate, but related concept, of psychologically-literate citizenship. Effectively, psychologically-literate citizenship combines the basic concept of psychological literacy, with the more expansive concept of global citizenship. According to Oxfam (1997), global citizens are people who:

- are aware of the wider world and have a sense of their own role as world citizens
- respect and value diversity
- have an understanding of how the world works economically, politically, socially, culturally, technologically and environmentally
- are outraged by social injustice
- participate in and contribute to the community at a range of levels from the local to the global
- are willing to act to make the world a more equitable and sustainable place
- take responsibility for their actions.

The above definition is imbued with value statements, and it could be argued that every individual needs to periodically examine their value system so that they know its origins and how it relates to their sense of morality and related ethics (see Morris, Cranney, Baldwin, Mellish, & Krochmalik, 2018a, Chapters 3 and 9). McGovern et al.’s (2010) definition of psychologically literate citizens as “critical scientific thinkers and ethical and socially responsible participants in their communities” (p. 10) is less heavily value-laden, but as critical thinkers, we should interrogate and then come to an understanding of the place of words such as “ethical and socially responsible” (see Miller, 1969).

## Implications for Psychology Education

Our core argument here is that a moderate level of psychological literacy should be the general outcome of studying psychology. Such an achievement should meet all three of Horan’s (2018) prescribed fundamental purposes of higher education: to preserve eternal truths; to create new knowledge; and to perform a service to humanity (through the

application of psychological principles to achieving personal, professional and societal goals, with an emphasis on solving societal problems). Most current societal problems, such as climate change, health inequalities, and global terrorism, can be argued to be caused by human behaviour (Halpern, 2010; Miller, 1969), and so the more that community leaders - particularly our psychology graduates - know about ways to influence human behaviour, the more capable they are of solving those problems (Banyard & Hulme, 2015). How well are we preparing our psychology graduates for this kind of role in our society?

In considering how we teach psychological literacy within a classroom, we must both (a) recognise the relevance of psychology to students' personal lives, and (b) facilitate their self-awareness of the ways in which this personal meaning can impact on their ability to evaluate evidence and to make informed decisions. In this regard, psychological literacy may be a threshold concept (Meyer, Land, & Baillie, 2010), transforming the ways in which students perceive psychology as a discipline and its applicability to everyday life, as well as offering a set of outcomes that can be attained through successful study of psychology (McGovern et al., 2010; see Table 1).

However, change at the level of the individual educator is unlikely to be sufficient in facilitating the development of psychologically literate students. As Halpern et al. (2010) argued, curriculum renewal is necessary to support psychology educators in creating a coherent curriculum with psychological literacy as the primary outcome. Otherwise, we risk minimal impact upon students. There has been some success in the UK because psychological literacy is explicitly required in undergraduate psychology programmes (BPS, 2019; QAA, 2016). Teaching strategies being implemented to meet this requirement range from the minimal (e.g., "I'll mention at the end of my lecture on attention how this is relevant to mobile phone use while driving") to the substantial (e.g., problem-based learning approaches with relevant problems to be solved, such as reducing car accidents resulting from driver mobile phone use). Nevertheless, it is clear that curriculum renewal is under way as a result of this "stick" approach. The BPS is also rewarding good practice, by awarding a prestigious annual prize to departments with the 'most innovative programme' (a "carrot" approach).

Next, we outline some practical strategies to facilitate the delivery of psychological literacy and psychologically-literate citizenship, on the part of individual educators and small teaching teams, and then at the level of the whole curriculum.

## Approaches and Strategies

Thus far, we have discussed the importance of preparing students for learning, throughout life and across their different activities and interests (lifelong and lifewide learning; Barnett, 2011), through the delivery of psychological literacy, in the interests of developing their employability and their ability to contribute to societal good. Here, we consider effective ways to develop students' psychological literacy. We address this first by reflecting on the importance of becoming psychologically-literate educators, and then by providing examples of teaching practices, and curriculum renewal.



## Psychologically-Literate Educators

Hulme (2014) argued that there are three main principles that must be considered in order to successfully deliver psychological literacy. Firstly, we must recognise for ourselves the relevance of psychology to everyday life, and the ways in which we can apply it in different contexts. In other words, we must become psychologically literate. This is consistent with Dunn, Cautin, and Gurung's (2011, p. 15) claim that: "Promoting psychological literacy entails reorienting what and how we teach students in a way that emphasizes psychology's relevance". Given that many psychology academics themselves experienced as students a curriculum that focused entirely on theory and research, this requires a shift in thinking and pedagogy (Hulme & Winstone, 2017).

Secondly, Hulme (2014) suggested, we need to ensure that psychological literacy is embedded throughout the curriculum, through a process of constructive alignment (Biggs, 1996). Thus programme learning outcomes signal the importance of psychological literacy to students; programme content and learning activities allow students to practice and develop their psychological literacy; and assessments effectively measure students' competence on the key aspects of psychological literacy that were signalled in the learning outcomes.

Finally, Hulme (2014) proposed that educators must also model psychological literacy to our students, to facilitate social learning. This requires reflection on applications of psychology within our own professional lives, such as providing an evidence base for our teaching practices, solving problems, informing our everyday interactions with students, and ensuring that inclusivity, respect for diversity, and ethics underpin our educational and research activities (Bernstein, 2011; Cranney & Dunn, 2011a; McGovern, 2011).

Let us briefly consider our own orientations as psychology educators, and the psychological evidence base from which we might draw, based on these suggestions. If we are psychologically-literate educators, we are committed to being reflective practitioners, and to using evidence-based approaches in our practice (see Bernstein, 2011). We know that human behaviour is determined by environment-person interactions, and as educators, we have significant influence on the curriculum environment. Thus, we could consider different evidence-based approaches to shaping the curriculum environment in a way that supports student learning. For example, we could implement learning, teaching, and assessment strategies consistent with the seven Higher Education Learning Framework evidence-based principles described by Carroll, Lodge, Bagraith, Nugent, Matthews, and Sah (2018). One such principle is "Leverage the social dynamics of learning to enhance the learning experience" (p. 1); this could be implemented by incorporating peer-learning activities into tutorials. Alternatively, one could apply Self-Determination Theory (Ryan & Deci, 2000) to shape the curriculum environment in a way that supports students' needs for autonomy, competence and relatedness, thus supporting student motivation and successful learning. A slightly different approach is to focus on providing students with opportunities to develop their self-management skills. Self-management is the capacity to strive effectively toward meaningful goals, and to be flexible in the face of set-backs. For students, these skills include time-management, effective study strategies, and emotional regulation. These skills have relevance for students' personal and professional development, and can be delivered in ways that enable academic content and skills to be intertwined.

We will now explore some specific student-centred learning, teaching, and assessment strategies that facilitate the development of students' psychological literacy, which are informed by principles of psychological literacy. We suggest that a fundamental aspect of acquiring psychological literacy is developing and implementing a mindset that equips students to "think like a psychologist". Thus, we first describe a sample strategy for encouraging the development of this capacity. Then, we give examples of how to provide students with opportunities to practice application of psychological principles to personal, professional and societal goals. Finally, we give examples of whole-programme curriculum approaches.

## Thinking Like a Psychologist

For students to successfully navigate the modern world, both in their personal and professional lives, the skills of critical thinking, information literacy, and evaluation of evidence are essential. Beyond graduation, these skills incorporate scientific literacy, but also broader skills such as analysing language and other types of qualitative evidence; thus, the skills provide a toolkit which facilitates future learning, employment, and problem solving.

### Example 1: An introductory exercise in designing and undertaking psychological research.

This exercise has been run successfully within the tutorial programme of a core first-term unit (Introduction to Psychological Applications) for Bachelor of Psychology students at the University of New South Wales (UNSW), Australia. The essential ingredients are well-designed support for team-work and research skill capability building, allowing for the satisfaction of the student needs for autonomy, competence and relatedness (Ryan & Deci, 2000). Despite ethical constraints, teams of students can choose a research question within specified topics (= autonomy). There is a low-stakes assessment (e.g., teams undertake a deconstruction of a research article), as well as ample opportunities within tutorials (e.g., exercises in oral presentation) to practice their research-related skills and to check group dynamics prior to the final oral presentation of their completed research project (= competence). There are also many team-building exercises along the way (= relatedness), and we have found that these experiences promote peer friendships, which ease transition to university and support successful learning throughout students' entire programme. Moreover, undertaking a research exercise, whereby students must distill a sensible hypothesis, operationalise variables, test human participants, and make sense of their data, is a fast and furious - but feasible - way for first-year students to successfully acquire a beginner's scientific mindset. This experience greatly advantages students as they progress through their degree, and could be delivered during the first year of any psychology programme.

## Application of Psychological Principles to Personal Goals

As discussed above, psychologically literate individuals are able to intentionally apply psychological knowledge to achieve their personal, professional, and societal goals. Personal goals include performing well in their studies and at their workplaces, creating and maintaining positive relationships, and pursuing their interests (Morris et al., 2018a).

## Example 2: Designing, implementing and evaluating a self-behaviour-change programme.

This exercise is the major individual assignment for a flipped classroom unit on the Psychological Science of Resilience at UNSW. The unit covers the psychological science of topics such as stress and emotional regulation, general academic skills such as time management and study strategies, and communication skills such as active listening. Learning is supported by an accessible 'textbook' specifically written for this course, *The Rubber Brain* (Morris et al., 2018a). For this assignment, students choose a behaviour that they wish to change (= autonomy, competence); in the past, these behaviours have ranged from skill building, such as learning how to horse-ride or study more effectively, to health behaviours such as exercising more, to esoteric personal goals such as learning more about one's ancestral culture. Students (a) initially undertake and report on a motivational strategy (GROW model; Morris et al., 2018a) regarding why they want to pursue the goal; (b) measure, report and reflect upon their wellbeing and self-efficacy before and after the assignment; (c) identify and attempt to implement evidence-based strategies for achieving their goal, including a consideration of potential barriers and solutions; (d) complete weekly progress reports and a final report, which includes a measure of the intended behavioural change and the intervention strategy; and (e) partner with another student to discuss their progress in class each week. The exercise allows students to gain a personal experience of a programme of attempted behaviour change (under supervision of the instructor), including methods of evaluation of that programme. We are aware that similar exercises are delivered elsewhere (e.g. Psychology of Happiness and Wellbeing, Keele University), and they could be widely implemented. Students acquire an appreciation of how psychological principles can be applied to their everyday lives, alongside a taste of science in terms of evidence-based strategies and outcome evaluation.

## Application of Psychological Principles to Professional Goals

Cranney and Dunn (2011b) also suggest that students will be able to apply psychology to help them to achieve their professional goals. Here, we explicitly consider the ways in which psychology is relevant to students' professional development, and how this can be delivered effectively through psychology education.

## Example 3: Exercise in evidence-based study skills.

Given the lifelong and lifewide nature of learning (Barnett, 2011) and the rapidly changing career landscape that often involves extended training, we suggest that study skills are a professional skill that can and should be further developed during university study. In interactive group work during the UNSW unit mentioned above (Example 2), students share with their peers their usual approaches to study. They then consider the findings of Dunlosky, Rawson, Marsh, Nathan, and Willingham's (2013) review of the effectiveness of ten learning strategies, whereby only two have received an acceptable level of support from methodologically rigorous studies. In their groups, students then choose a learning strategy that has not yet received adequate support, and design an experimental study to test the

effectiveness of that strategy, which they share with the class. This exercise encourages students to reflect on the effectiveness of the learning approaches they currently utilise and to recognise that quality, not quantity, of study is important for success.

#### Example 4: Career development learning (CDL) in first and final years.

Bachelor of Psychology students at UNSW are introduced to CDL, via the unit Introduction to Psychological Applications (see Example 1). A psychology careers expert lectures on pathways to professional psychology, as well as 'career literacy' in terms of evidence-based systematic approaches to job search, constructing resumes and cover letters, and interviewing for positions (this knowledge is assessed in the final exam). Tutorials build on this material using engaging interactive activities. In addition, lectures are given by experts in forensic psychology, clinical psychology, and business psychology (examinable), and videos of professional psychologists in diverse fields are made available. In the final year, all psychology major students take a core capstone unit (Research and Psychological Applications) whereby a major focus is CDL, with three components: (1) advanced careers lectures and tutorials providing systematic approaches to constructing resumes and cover letters, informational interviews, and interviewing for positions; (2) lectures by experts in fields where psychology graduates could find a variety of careers positions; and (3) a CDL portfolio assignment whereby students first carry out an informational interview with a person in a role that they aspire to, and then undertake activities related to achieving that goal, such as recording their relevant knowledge, skills and experience, and identifying further relevant CDL activities. This personalised approach to CDL has been well received (Cranney & Morris, 2018).

A similar approach emphasising personal development as an essential component of CDL was espoused by Lantz (2011), in her Psychology Student's Employability Guide. The guide draws upon the career psychology literature, scaffolding students' reflections about their own strengths and weaknesses, and matching their skills, attributes and values to possible careers to which they aspire. Students are encouraged to formulate action plans throughout their undergraduate programmes, to strengthen areas of weakness, check their understanding of particular career roles, and gain experience that is relevant to their preferred career route.

Overall, these activities fit with the "4 A's" framework by providing opportunities for students to: increase their awareness of and acquire further career-relevant knowledge, skills and experience; apply that knowledge and skill in situations such as the informational interview; and acknowledge that knowledge and skill in the form of their CDL portfolio or their responses to the activities in Lantz's (2011) guide.

#### Example 5: Work-integrated Learning (WIL).

The capstone course in Example 4 provides students with a metacognitive and integrative conceptualisation of their skill acquisition during their psychology education. Another strategy is WIL, which could involve a local research laboratory or partnership with potential employers, either (a) 'in-house', where employers have a project that can be worked on without students leaving the classroom; or (b) within a workplace (Cranney & Morris, in press).

#### a) WIL in the classroom - Making a Difference with Psychology

Making a Difference with Psychology is an elective module in the final year of the undergraduate psychology programme at Keele University, UK. The module was designed to facilitate students' understandings of the application of psychology to professional goals, particularly for students who wish to pursue careers outside professional psychology. The learning outcomes, teaching activities, and assessment encourage students to apply psychology to employment-relevant contexts. Early sessions on leadership are delivered via interactive lectures, and teaching then moves to group work and active learning strategies, considering issues such as science communication, or raising aspirations in deprived youth. Towards the end of the module, students use problem-based learning to explore issues relating to education and professional training, taking the perspective of teachers and trainers. Throughout, external speakers who are also employers contribute to the teaching (for example, a British Army Major talks about leadership in the military, while the lecturer supports students to connect the talk to their psychological knowledge). In this way, students are scaffolded to move from being consumers of information to becoming independent learners who can think critically, evaluate and apply knowledge. The final session is dedicated to the psychology of recruitment, and focuses on interview and selection procedures, to equip students for their post-graduation job searches.

The assessment includes a formative presentation, in which students work in groups, based on their problem-based learning activities, to present a solution to an education or training provider. The students provide peer feedback on the persuasiveness of their suggested approach and the likelihood that they might be employed by the target company as consultants to deliver their proposed project. The summative assessment is authentic; students are presented with an invitation to tender for business, requiring them to provide a detailed written plan that meets the needs of the employer, and to write a psychologically-informed rationale explaining the evidence that underpins their chosen approach. Recent examples of assessment have included: (a) a project from Shaftesbury Young People, who support looked-after young people to apply to university; and (b) a marketing project for Keele's postgraduate programmes (leading to a successful campaign that was used by the university the following year). In the first years of its delivery, the module recruited poorly, but we have worked with our students to ensure its relevance to their professional goals; it now recruits well. Student evaluations are positive; they find the content stimulating and inspiring, despite finding the problem-based aspects challenging at first.

#### b) WIL in the workplace: UK Placements

Many universities recognise the benefits of offering work-based activities during a programme of undergraduate study. Some examples of different models of doing this are provided as case studies within Reddy, Lantz, and Hulme's (2013) employability guide. At Huddersfield University, in the UK (case study 12), students study a module in which they reflect on the relevance of psychology to a (loosely) work-relevant context of their choice: this might be a part-time job that they undertake during their studies, a voluntary placement, or even caring for relatives. Students are assessed via a reflective portfolio. This model ensures accessibility and inclusion, due to the

broad definition of “work” that is adopted, which ensures that the majority of students are able to engage.

An increasing number of institutions, including Aston University in the UK (see case studies 17 and 18; Reddy et al., 2013; Reddy & Moores, 2006), offer full-year work placement opportunities. In this model, the usual three-year English degree is increased to four years, with the year between second and third year being spent in a workplace. At Aston, the significance to students of adding an extra year to their degree programme, in terms of extending their studies, delaying graduation, and increased expense, is recognised. Through a second year module, students explore possible career choices, and ways of optimising the benefits from their placement year, prior to deciding to go on placement. On return to university, students take a module in which they consolidate their learning from their placement, revising their career plans, and re-assessing their competencies relating to employability. Reddy and Moores (2006) report substantial benefits to students, including improved student grades, and students report improved confidence and preparedness for graduate-level employment as a result of the placement experience.

Both of these kinds of WIL experiences explicitly remind students of the need to intentionally apply - to a work context and their own professional goals - the psychological knowledge and skills that they have acquired throughout their degree programme. However, there are resource issues for WIL, especially where students are required to gain experience in genuine workplaces, because the university must take responsibility for occupational health and safety. Close partnerships with employers are helpful in developing placements, and learning contracts and other procedures are usually necessary (e.g., in Example 5b); thus dedicated staff are required to support delivery.

## Application of Psychological Principles to Community, Societal, and Global Goals

A number of institutions have devised ways of incorporating psychological literacy at the level of the community, society, or even globally, within their programmes. Hulme and Kitching (2016) reported that UK university psychology educators were being increasingly pushed by students, institutions, their professional body, and government, to incorporate more of this type of learning within the curriculum. However, they also suggested that developing these types of learning could be resource intensive, and difficult with large student numbers. As one participating educator said: “Engagement with communities, organisations and business has to be a way forward. How psychology does that is an interesting one...in mainstream psychology, how do we develop what we are terming civic engagement...?” (p. 16). In this section, we describe some examples of strategies that have been used to deliver this aim successfully.

### Example 6: Psychology in Education

At Keele University, the elective module Psychology in Education is taken by between 50 and 100 third-year (final year) undergraduate students each year. The module covers a range of topics related to the application of psychology to different educational issues, from

early years through to higher education. During the module, students have an opportunity to volunteer with local education providers. For example, in the nearby community of Stoke-on-Trent, there is a known challenge around raising literacy levels, and students can choose to participate in the *Stoke Reads* project, to raise literacy levels and enjoyment of reading among young children.

Other projects have included initiatives to reduce bullying in local schools, and to destigmatise mental health and encourage help-seeking behaviours among students at Keele (leading to a very successful “Look After Your Mate” campaign by the Keele Students’ Union). Each project was associated with an assessment (students chose one from a selection) reviewing the psychological literature relating to the topic, and developing psychologically-informed interventions to address these community issues. Students report finding the project-based approaches challenging at first, but they gradually gain confidence, and recognise that their ability to apply psychology to their local community, as well as to their possible subsequent training and employment, is enhanced by these activities. The projects benefit the local community, and strengthen links between the psychology department, the university, and the surrounding area, which is recognised as a region of social and economic deprivation.

### Example 7: International Community Psychology Projects

Akhurst and Mitchell (2012; and Case Study 29 of Reddy et al., 2013) designed a community psychology project in partnership between York St John University, UK, and a number of international universities on three continents, to give students global perspectives and experiences which were also work-relevant. Students worked on overseas community-based projects, accompanied by a tutor, alongside local academics and community partners. Examples included working with children with communicative and developmental disorders in the US, educational projects with children in South Africa, and developing community skills in India. Akhurst and Mitchell reported multiple benefits: students developed cross-cultural awareness, engaged deeply and emotionally with the psychological elements of the learning experience, and became more committed to future ‘helping’ roles and activities relating to social justice.

### Example 8: Development of Cultural Responsivity

Cultural responsivity is the capacity and motivation to learn about another culture, so that one can interact in a more respectful way with people of that culture. This capacity is foundational to working with/for diverse groups. The dispossession and oppression of First Nations peoples (e.g., in North America and Australia) and the migration of people away from war zones and genocide (e.g., Syrian people fleeing to Europe) have had disastrous consequences for those peoples, exacerbated by the prejudice displayed by the invading or ‘receiving’ cultures (respectively). The application of evidence-based skills derived from psychological sciences could help to negotiate more positive cultural contact. Indeed, “cultural competency” has been identified by employers and psychology educators as a desirable skill set (e.g., Reddy et al., 2013).

Dudgeon, Darlaston-Jones, and Clark (2011) describe a unit which meets these purposes. It includes a four-week immersion in a remote Australian Aboriginal community as part of a

respectful working partnership with the Gelganyem Youth and Community Wellbeing Programme. The students “travel with a staff member and are engaged in a range of activities from the delivery of out-of-school programs, helping with breakfast club, developing grant applications, and other community needs *identified by the community*” (p.85, italics added). This immersion experience is bracketed by thorough preparation activities and debrief activities and assessments. As a result of these and other learning experiences, graduates attain a high level of cultural responsiveness, and are ‘in demand’ for human services positions in the public service and not-for-profit sectors (L. Darlaston-Jones, personal communication, 15 June, 2016).

## Curriculum renewal

The example approaches and strategies discussed above illustrate good practices in delivering elements of psychological literacy within the psychology curriculum at module/unit level, or within the practice of individual educators. However, while such innovations support the delivery of psychological literacy, it is desirable to renew the entire curriculum, at programme level, to ensure that students have optimal opportunities to develop their knowledge, skills, and attributes. According to Halpern et al. (2010), curricula designed for psychological literacy should:

- Reinforce the scientific underpinnings of psychology;
- Include content for the core domains of psychology (we note that these are similar but differently named by professional bodies from different countries);
- Provide opportunities for applied learning, including WIL and problem-solving experiences;
- Include assessments that promote critical thinking and different methods of communication;
- Be structured so that students’ development of higher-level thinking skills is progressive throughout the course;
- Have clearly articulated programme-level learning outcomes, that are aligned to teaching and assessment;
- Be delivered by pedagogically-trained teachers;
- Include knowledge and skills delivery that are relevant to students’ lives, to facilitate a contribution to public good.

These principles are closely aligned to those we have already discussed. Broadly speaking, Halpern et al.’s (2010) proposals relate to our conceptualisations of: thinking like a psychologist; applying psychology to personal, professional, and societal goals; and psychologically-literate educators. Dunn et al. (2011) propose similar principles for curriculum design, but include an additional level of review, recommending that the departmental teaching team needs to refresh its understanding of their mission, and align the curriculum renewal to this. Operationalising programme-level, rather than module-/unit-level learning outcomes, requires a collegiate approach, with strong leadership that emphasises the value of psychological literacy as a core principle at the heart of the curriculum.



The Psychology Department at Stirling University have provided a useful example of curriculum review with a view to developing psychologically-literate citizens (Hulme et al., 2015; Watt, 2013). Watt (2013), as programme lead, reflects on this process in some detail, remarking on the importance of motivating both staff and students to engage with the renewal process, and of working collaboratively with students to ensure that the curriculum both meets their needs, and allows them to progressively develop as independent learners, with increasing skills to apply psychology to their goals. The programme facilitates learning by trial and error; students are able to make mistakes, and are encouraged to work hard to play to their strengths and to develop their areas of weakness. By their final year, students are able to: take responsibility for their own learning, effectively supporting and being supported by their peers; lead their own research projects in teams; in some cases, deliver teaching to students in earlier years of the programme; and even help to develop their own modules. Watt describes a need to build students' confidence through scaffolding, and also to build staff confidence in the ability of students to apply psychology competently and reliably. The project has been a resounding success: the programme received the BPS Innovative Programmes Award in 2014, and students report that they develop leadership capabilities, employability and psychologically-literate citizenship, which facilitate their learning, development, and societal contribution well beyond graduation (Hulme et al., 2015).

A slightly different approach was taken when reviewing the psychology curriculum at Keele University (unpublished). The leadership team at Keele convened a curriculum review group to update the curriculum and ensure that it delivered the requirements for BPS accreditation, whilst also integrating psychological literacy and employability throughout. Curriculum 'theme leads' for each of the core areas of psychology (QAA, 2016) reviewed coverage of each element that covered their topic, across all levels of the programme. Curriculum structure was checked to ensure that students were able to demonstrate broad coverage of psychological knowledge in the first year, and then across the subsequent two years, display progressive development of knowledge and skills and the ability to apply psychology. A key feature of the revised curriculum focused on the final-year elective modules (including *Making a Difference in Psychology* and *Psychology in Education*, described previously). Single Honours and Major students could choose up to three electives, and other students (studying another subject alongside psychology) could choose one. Each elective focused on applications of different areas of psychological content knowledge. This allowed students to choose areas of psychology that interested them, thus increasing student engagement and relevance to future aspirations. However, all of these modules were designed in similar ways, so that each has learning outcomes, teaching activities, and assessments that facilitate students' abilities to apply psychological knowledge to problem solving. Thus all students learn the same core knowledge early in the programme, and are scaffolded, through second year, to develop their skills in applying psychology. In final year, they can choose to specialise in particular areas, and to develop their psychological literacy more fully in those areas that are relevant to them. Single Honours students thus gain more practice in the skills of psychological literacy than those doing less psychology, but every student has the opportunity to develop psychological literacy to some extent. This is consistent with Halonen, Dunn, Baker, and McCarthy's (2011) suggestion that departments should plan for differential exposure to psychological literacy within the programme, depending on whether students are studying psychology as their main specialism, or alongside other subjects. The curriculum review was facilitated by teaching team discussions and 'away' days, to ensure

some consensus of opinion amongst teaching staff, and consistent with Dunn et al.'s (2011) recommendations discussed above.

Based on these experiences, we endorse the principles proposed by Halpern et al. (2010) and Dunn et al. (2011), and suggest that programme leaders should adopt collegiate approaches to working with teaching teams and students to agree on important principles relating to the design of the curriculum. Scaffolding is required to move students towards independent learning approaches, gradually and progressively, throughout the programme. Likewise, constructive alignment of learning outcomes, activities and assessments is essential. Programme-level learning outcomes must align to unit/module learning outcomes, and all must refer explicitly to key aspects of psychological literacy. Teaching and learning activities must allow students to practice the relevant skills of psychological literacy, and to learn from mistakes. Finally, assessments must allow students to demonstrate their psychological literacy, by measuring their ability to apply psychological knowledge and skills to their personal, professional and societal goals. As psychologically-literate educators (Bernstein, 2011), we recognise that regular evaluations, analysis of student performance, and revisions of teaching help to ensure that the curriculum delivers the programme learning outcomes, and ensures that graduates are able to acquire attributes that are consistent with psychological literacy.

## Challenges and Lessons Learned

In delivering psychological literacy as “learning for life”, we have learned much about what helps students (and educators) to learn effectively. In this section, we share some of those lessons, and consider some challenges that require further attention. In reflecting on these points, we hope to elucidate the ways in which psychology can help students to become graduates who can solve problems in everyday life, who will continue to develop through lifelong and lifewide learning, and thus can thrive in a changing world.

Firstly, in terms of lessons learned, we believe that teaching for psychological literacy provides considerable opportunities. Students who are facilitated to “think like a psychologist” are equipped with good skills in scientific literacy and critical thinking. In this regard, psychology prepares them well for further scientific training, as well as developing a broader skill base. Indeed, Trapp et al. (2011) describe psychology as a “STEM+” subject. Given the diversity of students who study psychology, and especially the high proportion of female students, psychological literacy may facilitate increased participation in science for otherwise under-represented groups, and as such impact greatly on the scientific literacy of the general population. Thus psychology could be considered as a “gateway” science, creating opportunities for graduates to engage further with other aspects of science. Our experiences have demonstrated both the value of this for students, and the importance of making the scientific nature of psychology explicit within the curriculum. Likewise, we would suggest that “thinking like a psychologist” allows one to question not only published research reports and claims in the media, but also one’s own way of thinking, and the latter is the greatest cognitive, emotional, and motivational challenge (Halpern, 1998; Morris et al., 2018a).

The diversity of psychology students also creates opportunities for learning about equality, diversity, and inclusion in wider society, and the application of psychological knowledge to the development of intercultural competency. Respect for and value of diversity is an important component of psychological literacy (McGovern et al., 2010) and is especially important at a time of global migration, international trade, and racial and religious tensions, and in light of gender inequality, mental health challenges, and inequities for those with disabilities. Education that develops psychological literacy taps into psychology students' desire to help others (Bromnick & Horowitz, 2013), and even increases this desire (Akhurst & Mitchell, 2012). We are increasingly aware of the benefits of educating for psychologically literate citizenship in terms of meeting the goal of higher education that serves the public good (Boyer, 1990; Horan, 2018).

However, psychology students do not always find learning to be psychologically literate easy. Learning in general, and acquiring a "psychologically literate mindset" in particular, is challenging, both for psychology students, and for psychology educators. There are "desirable difficulties" (Worrell et al., 2010, p. 132) in effective and meaningful learning that frame learning as a joint responsibility (and at best, a partnership): students must expend quality effort to acquire new knowledge and skills, and educators must provide evidence-based teaching and assessment strategies to effectively support and provide opportunities for student learning (Halpern et al., 2010). These opportunities must encourage students to try, potentially fail, but then learn from those failures. The benefit of desirable difficulties is evident from our evaluations, such as those from *Making a Difference* and *Psychology in Education*, above, where students initially struggle with the applied nature of the learning, but subsequently report that these modules transform their thinking, and develop their confidence. A key lesson here is the importance of scaffolding, and the need to reassure students that learning higher-level psychological literacy skills is difficult, but will be worthwhile, and is achievable with support. We suggest that the challenges are related to the rewards, as epitomised in this quote from George Bernard Shaw: "Life is not meant to be easy, my child; but take courage: it can be delightful".

Within this chapter, we have explored a number of ways of ensuring that education for psychological literacy can be successful and create opportunities to develop students' ability to apply psychology to their personal, professional, and societal goals. This benefits not only the students themselves, but also wider society. However, a number of challenges are also apparent.

Firstly, much of the psychological literacy work, including our own position within this chapter, relates to a strong claim that psychology is a science. In particular, there is a sense that knowledge is derived from the scientific method, particularly an experimental approach which includes random assignment of participants to conditions, the control of potentially confounding variables, and some level of scientific objectivity. However, it is important to note that psychology as a discipline draws upon a wide range of research methods, including those that might be perceived to be 'stereotypically' scientific, and those that are less positivistic, including qualitative methods. It is important that we must not undermine the value of the diverse methodologies that are recognised within psychology; different methodologies provide valuable insights and perspectives on the complexity of human experience. Psychologically-literate students also need to recognise their own subjectivity, and the way that this can affect their interpretation and evaluation of information, even that

which is traditionally scientific. For this reason, we have chosen to talk here about “thinking like a psychologist”, rather than “thinking like a scientist”; we hope that this captures the richness of empirical evidence available within the discipline as a whole. However, challenges remain, in that the discourse of “psychology as science” permeates the discipline to a large extent, and this can create barriers to students’ engagement with the wider range of psychological methods, as well as a perception that qualitative research is somehow less rigorous than experimental approaches (Povee & Roberts, 2014). The psychology education community must find ways to encourage students (and colleagues) to appreciate the heterogeneity of research in the discipline.

A further challenge relates to cultural responsiveness and relativity. We acknowledge that the contents of this chapter are biased by our Western world views, and we welcome critiques and extensions of these discussions from colleagues in diverse cultures, particularly around the value-laden conceptualisation of psychological literacy and psychologically literate citizenship. Whilst encouraging our students to develop intercultural competence, we are aware that this is very much a “work in progress” for us too. In Australia and the US, psychology educators are keen to better reflect the perspectives of First Nations people (e.g., Darlaston-Jones, 2015), whilst in the UK, South Africa, and Canada, for example, the international and ethnic diversity of the student body has motivated considerable work to “decolonise the curriculum”. This increased attention to cultural diversity is welcome, and we would encourage our colleagues to continue the work, individually, and across the global discipline community. The international sharing of insights and practices in this regard is essential in our attempts to become psychologically-literate educators who ourselves respect and value diversity in our classrooms.

Relatedly, the development of psychologically-literate educators more broadly presents a challenge. Psychological literacy is new to many psychology educators (Hulme & Winstone, 2017) and indeed, is a ‘threshold concept’ (Meyer, Land, & Baillie, 2010) for educators as well as for students. In order to deliver psychological literacy effectively, there is a need for psychology-specific academic development and learning on the part of psychology educators. Just as we must create and share strategies to help students acquire the concept, we must do the same for our colleagues. There is a challenge here for psychology professional and subject-related bodies to promote psychological literacy not only through accreditation processes, but also through offering resources and accessible continuing professional development opportunities.

Throughout this chapter, we have argued that psychology undergraduate students will acquire (and be aware of, apply, and be able to articulate) a “moderate level of psychological literacy”. This raises the question of what is really meant by “a moderate level of psychological literacy”? In his criticism of educational systems in the Western World, Nadal Ravakant (Ravakant & Navukant, 2017) argues that all students should “learn the basics” (including learning to think better, to achieve psychological health, and to have healthy relationships) really well. Subsequently, Ravakant suggests, students should be allowed to pursue only those topics that interest them. Similarly, we suggest (consistent with Halonen et al., 2011) that the psychology major should consist of: (a) a fundamental set of minimal attributes (knowledge, skills, attitudes), supported by at least one cornerstone course which includes an introduction to “thinking like a psychologist”; followed by (b) significant choice in topics that build upon those foundations; and then (c) a capstone experience whereby

students have opportunities for integrative learning, with a high level of choice and autonomy to ensure engagement and deep learning. As such, psychology graduates will acquire a “spiky profile” of psychological attributes: they may excel in some components of psychological literacy, whilst exhibiting minimal knowledge and skills in other areas. The challenge here, then, is that our current perspectives on psychological literacy may imply: “a relatively well-integrated and functional set of schemas that across individuals may show some variability in expression, but in terms of central tendency, can be recognized and assessed as ‘psychological literacy’” (Cranney & Dunn, 2011*b*, p. 8). The reality, from a student and educator perspective, may be that some aspects of psychological literacy are aspirational (Murdoch, 2016), and some students may never acquire the full set of associated attributes. Indeed, perhaps the most important element of psychological literacy might be the development of reflective skills and self-awareness, enabling the student themselves to be aware of their own strengths and weaknesses. We would argue that all psychology students should be given opportunities to engage with all of the different components of psychological literacy, and to determine the relevance of each for themselves. Further work is required to establish whether a ‘threshold’ level of achievement against the different skills can be, or should be, determined, and to determine how, or if, we can measure that achievement. Some researchers have attempted to measure psychological literacy (e.g., Heritage, Roberts, & Gasson, 2016), but this is still in its early stages, and debate around how psychological literacy can be operationalised is ongoing. Further work in this area presents an exciting challenge for the psychology education community.

Indeed, as psychology educators, we face a similar challenge in regard to our own personal and professional development. As Cranney and Morris (in press) suggest: “No one is ever ‘fully’ psychological literate—this is impossible. But we choose our own areas of our lives where we want to apply psychology to achieve our personal, professional, and societal goals. Of particular relevance to us as psychology educators is to apply the knowledge and skills of psychology to the educational context, and become ‘scientist-educators’.” Only in addressing this challenge, we suggest, will we fully capitalise on the lessons we are learning, and truly develop the principles of education for psychological literacy.

## Concluding thoughts

In conclusion, then, psychological literacy is still a relatively new concept within psychology education, and as such, there are still lessons to learn, and challenges to overcome. However, we have argued that the opportunities presented by delivering psychology education through the lens of psychological literacy are immense. For society, psychological literacy offers a means of ensuring that higher education is fit for its purposes of preserving knowledge, creating new knowledge, and serving the public good (Horan, 2018). For educators, it offers a means to teach psychology in a way that is rewarding, engaging, and enables us to continue to learn and develop our own psychological understanding and skills. Perhaps most importantly, for students, psychological literacy enables them to develop as lifelong and lifewide learners, and facilitates their engagement with science, critical thinking, and civic issues, albeit to varying extents. In this way, our psychology graduates are well prepared for the uncertain future of a changing world; they are able to “learn for life”.

# Teaching, Learning and Assessment Resources

If you are now keen to increase the focus on psychological literacy within your teaching practice, we hope you will find these tips and additional resources useful.

## Tips

1. Start out by thinking about what you want students to know and do; try to ensure that you give them an opportunity to practice with support in class, and that your assessments measure the same knowledge and skills.
2. If engaging students in active and problem-based learning seems daunting at first, start by thinking of examples of the way that the psychology content you are teaching can be applied to everyday life - and encourage your colleagues to do the same. Don't try to change everything all at once - take steps, and learn as you go.
3. Try to involve students in the process of renewing your classes, assessments and curricula. Students can be extremely creative, providing you with lots of ideas - and working with them in partnership can give them a sense of ownership over their learning, which can facilitate their engagement.
4. Like students, educators' learning can be facilitated by working with other educators. Find like-minded colleagues at your university or elsewhere, and work in partnership to renew your curricula. Consider observing others' classes, or asking them to observe yours, and give you some ideas on what you can do to increase the focus on application and psychological literacy.
5. Reflect on your own position as a psychologically literate educator: to what extent are you applying psychology to your teaching and assessment practices, and how do you model psychological literacy to your students? If you think there is room for improvement in some areas, consider exploring some of the further reading suggestions below, to develop your thinking and practices in the areas you think need most work.

## Further Readings

1. Cranney, J. & Dunn, D. (2011 a). *The psychologically literate citizen: Foundations and global perspectives*. New York: Oxford University Press.
  - The definitive source to develop your thinking about education for psychological literacy, covering definitions, cultural perspectives, and suggestions for practice.
2. Morris, S., Cranney, J., Baldwin, P., Mellish, L., & Krochmalik, A. (2018). *The rubber brain: A toolkit for optimising your study, work, and life*. Bowen Hills, QLD: Australian Academic Press.
  - Provides useful content and techniques for helping students to apply psychology to their own personal and professional development, helping them

to learn effectively. The practical exercises - relevant either to the subject matter or to general skills that facilitate successful completion of assessments - could be integrated into almost any psychology unit.

3. Cranney, J., Morris, S., & Baldwin, P. (n.d.). Psychological Literacy. Retrieved from: <http://www.psychliteracy.com/>
  - A useful website collating a plethora of resources, information and insights into psychological literacy from around the world.
  
4. Mair, C., Taylor, J., & Hulme, J.A. (2013). An introductory guide to psychological literacy and psychologically literate citizenship. York: Higher Education Academy. Retrieved from: <https://www.heacademy.ac.uk/knowledge-hub/psychology-education-psychological-literacy>
  - A practically-focused introduction to the concepts of psychological literacy and psychologically-literate citizenship, with ideas about ways in which different core topics in psychology can be applied to everyday life.
  
5. Taylor, J. & Hulme, J.A. (2015). Psychological literacy: A compendium of practice. Retrieved from: [http://eprints.bournemouth.ac.uk/22906/4/psychological\\_literacy\\_compendium\\_final2\\_amended.pdf](http://eprints.bournemouth.ac.uk/22906/4/psychological_literacy_compendium_final2_amended.pdf).
  - A set of case studies from the UK, illustrating the ways in which some educators have delivered psychological literacy to their students.
  
6. Taylor, J. & Hulme, J.A. (2018). International edition of the psychological literacy compendium. Retrieved from: <http://eprints.bournemouth.ac.uk/30425/1/International%20edition%20Psychological%20Literacy%20Compendium%20Final.pdf>.
  - Building upon Taylor and Hulme (2015), this international edition of the compendium includes additional case studies, from the UK and the rest of the world.
  
7. Halpern, D. (1998). Teaching critical thinking for transfer across domains: Dispositions, skills, structure training, and metacognitive monitoring. *American Psychologist*, 53, 449-455.
  - This article is ground-breaking in the sense that it points to the motivational aspect of critical thinking - that is, in order to engage in critical thinking - possibly the most commonly stated graduate outcome for Western universities - one must be motivated to do so, because it takes effort! The highlighting of the metacognitive aspects of critical thinking underline this point. Examination of one's own thinking, of course, is fundamental to progress in any domain of one's life.
  
8. Halpern, D. (2010). *Undergraduate education in psychology: A blueprint for the future of the discipline*. Washington, DC: APA.
  - This collection contains McGovern et al.'s (2010) ground-breaking chapter, as well as many other useful chapters specifically written to support psychology educators.
  
9. Dunlosky, J., Rawson, K., Marsh, E.J., Nathan, M.J. & Willingham, D.T. (2013). Improving students' learning with effective learning techniques: promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14 (1), 4-58.

- A review of the psychological literature to inform learning and teaching practices using evidence from psychological science.

10. Harré, N. (2018). *Psychology for a better world: Working with people to save the planet*. Auckland: Auckland University Press.

- An intriguing exploration of the ways in which psychology can be applied to the global environmental crisis, illustrating one aspect of psychologically-literate citizenship.

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