Scientific Blogs as a Psychological Literacy Assessment Tool

Madeleine Pownall, Jelena Havelka, and Richard Harris

Abstract

Introduction: Psychological literacy is a pedagogic approach that promotes the application of psychology knowledge to address societal, ethical, and cultural problems. Statement of the Problem: Psychological literacy is considered to be a core outcome of a psychology undergraduate degree, and scholars have called for more “psychologically literate” forms of summative assessment to reflect this. Literature Review: Throughout the pedagogic literature, scientific blogs have been proposed as a form of assessment that encourages reflection, creative thinking, and perspective taking. Teaching Implications: Here, we discuss the utility of blog writing as a summative assessment which fosters psychological literacy by encouraging students to engage with the interplay between subject knowledge and real-world applications. Conclusion: We reflect upon our experiences of embedding of scientific blogs in two final-year modules at a UK university and offer a commentary in the context of psychological literacy undergraduate outcomes.

Keywords
assessment, curriculum, mixed-methods research, scholarship of teaching and learning, writing, psychological literacy, assessment and feedback

Introduction

“It is easy for students (and staff) to lose sight of psychology as a profession able to enhance the wellbeing of others... when assessments become less varied and narrow.” (Taylor & Hulme, 2015, p. 32)

“Psychological literacy” is an approach to teaching and learning in higher education that encourages psychology students to use their core subject knowledge to address global problems in thoughtful and responsible ways (Boneau, 1990; Cranney & Dunn, 2011; Mair et al., 2013). It is a pedagogic approach which broadly promotes the application of psychological content to meet “personal, professional and societal needs” (Cranney et al., 2012, p. 4), and draws upon teaching and learning tools such as problem-based learning (Cranney, 2013) and assessments that are reflective and creative (e.g., Mair et al., 2013). Ultimately, psychological literacy aims to equip psychology students with the necessary skills that allow them to apply the knowledge, theories, and content that they learn throughout their studies to contribute to the world as responsible and ethical graduates (McGovern et al., 2010). As Hulme (2014) stresses, the purpose of a psychology education should not be simply to create graduates whose sole contribution to their community lies within the labor market. Instead, a psychology education should prompt students to consider how to use their psychology knowledge to be useful “global” citizens who are able to think critically and analytically, contributing to solving the world’s global problems (Cranney & Dunn, 2011).

Psychological literacy thus aims to enhance students’ critical thinking skills (APA, 2013; Hulme & Cranney, 2020) and encompasses a large range of useful and desirable undergraduate outcomes (Harris et al., 2021). It can also have positive implications for students’ learning in college or university courses. For example, Burton et al. (2013) found that taking a psychological literacy approach to teaching and learning positively impacted the student experience, leading to deeper learning, better understanding of ethics, and higher academic attainment. The value of psychological literacy as a teaching approach is clear from the literature (Newell et al., 2020). However, Halpern and Butler (2011) also stress that the skills aligned with psychological literacy as a pedagogic construct should be meaningfully and effectively assessed to qualify its position as a valuable aspect of a psychology education.

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degree. Therefore, the promotion of “authentic assessment” is an important facet of supporting the development of psychological literacy (Mair et al., 2013; McGovern et al., 2010). It is also a feature of an effective psychology education; as Chew et al. (2018), (p. 242) note in their “manifesto” for the improvement of teaching and learning in psychology, effective assessment practices involve a matching of “assessment formats to intended measurement goals”.

“Authentic assessment” refers to assignments that are designed to reflect the skills that students will practice in their careers and other life experiences after graduation (Archbald, 1991; Gulikers et al., 2004), looking beyond traditional assessment such as closed-book exams and traditional formats of academic essays (Macandrew & Edwards, 2002). In general psychology, for example, authentic assessments may include the explicit development of scientific inquiry skills, such as a practical research report (Halonen et al., 2003). Or, for more applied facets such as clinical psychology, this may also include formulation of case studies or engagement in mock practitioner dialogues (Villarroel et al., 2018). Previous examples of authentic assessments designed to foster and assess psychological literacy include asking students to write letters to non-psychology audiences (Cranney, 2013), critical evaluation of media materials (Halpern & Butler, 2011), written reflections of volunteering (Hadlington; as cited in Taylor & Hulme, 2015), and research project interviews (Turner & Davila-Ross, 2015). All of these examples are designed to encourage a psychologically literate approach to psychology content because they encourage communication with non-experts and application of psychology content (Hulme, 2014).

Indeed, central to the notion of psychological literacy is the effective communication of psychology in practice (Trapp et al., 2011). Therefore, a psychologically literate education should encourage students to communicate their knowledge in clear and accessible ways. With this in mind, here, we propose that blog writing may also be an effective assessment for capturing and promoting students’ psychological literacy. Blog writing inherently aligns with the agenda of psychological literacy because it aims to communicate often complex psychology knowledge in an accessible way (Jolley et al., 2016; Lin et al., 2007).

Blogs, which are a web-based form of journal or writing platform, are a powerful tool in the wide dissemination of information (Richardson, 2006) and have emerged as an increasingly popular method of assessing written language skills (Kim, 2008; Lee, 2010; Raith, 2009; Williams & Jacobs, 2004). Blog writing is thought to offer the opportunity to take different perspectives in writing, develop a more critical appraisal of the content, and thus can prompt higher levels of self-reflection (e.g., Frye et al., 2010; Jimoyiannis & Angelaina, 2012). Activities that encourage creative participation in the process of academic writing have been found to empower and engage students (Creme & Hunt, 2002), a core goal of a psychology education (Ishak & Salter, 2017). Therefore, blog writing promotes wider academic language learning (Murray et al., 2007) and thus complements more traditional forms of assessments by allowing a different set of skills to be assessed (Morris et al., 2013). Across the literature, studies show that students report high levels of engagement with blog writing exercises, owing to the high levels of creativity associated with this form of writing (Hindley, 2018).

Research demonstrates students often report feeling unprepared and overwhelmed at the perceived “rules” of academic essay writing (Ishak & Salter, 2017). Blog writing should help students to overcome this pedagogic challenge, given that blogs are governed less rigidly by academic norms (Bennett et al., 2012) and typically involve more reflective, creative, and critical tone (Arslan & Aysel, 2010; Novakovich & Long, 2013). Writing in a clear and accessible way is an important transferable skill and undergraduate outcomes across subjects in higher education (Hawkey & Barker, 2004; Leki & Carson, 1994). Blog writing can, in theory, enhance these skills, given its highly reflective nature and deviance away from the conventions of academic writing with which some students struggle (Dippold, 2009; Soysa et al., 2013; Xie et al., 2008). Similarly, blog writing also provides a useful opportunity to communicate psychology content to a wider audience. Scholars have noted how traditional forms of academic psychology dissemination, such as journal articles, are typically inaccessible to a general audience, both in terms of language use and access (i.e., because they are published behind a paywall that requires institutional subscriptions; Relojo, 2017). Blog writing may thus be an important platform to mediate the relationship between science and the general public (e.g., Gardiner et al., 2018; Schmidt, 2008), which again is a facet of the psychological literacy approach (Hulme, 2014).

Blog writing as an assessment has been embedded successfully in many different academic subjects in higher education, such as in pharmacy (Dunne & Ryan, 2016), anthropology (Walker & Chatzigaviiri, 2017), professional development (Shanks, 2020), and English literature (Agarwal, 2017). Indeed, given that the British Psychological Society, 2019 note in their degree accreditation standards that “critical evaluation and reflection” is a key graduate attribute for psychology programs, blog writing may be particularly compatible with psychology undergraduate content. The blog approach to writing has been promoted through BPS-led initiatives, such as the Voices in Psychology program (Sutton & Pownall, 2018, 2019). This also extends to the American Psychological Association’s guidelines for undergraduate psychology majors (2013), who too stress that scientific inquiry, critical thinking, and communication are among the core goals of a psychology degree.

Moreover, research shows that blog writing prompts critical thinking and reflection (Chretien et al., 2008; Novakovich, 2016). For example, Novakovich (2016) investigated whether there are differences in the quality of writing generated through in-class workshops between the use of traditional
methods compared with blog writing. They concluded that blog writing fostered more complex literacy skills, which is echoed by other empirical studies (e.g., Alsamadani, 2018; Febianti & Wahyuni, 2019).

However, there are also some challenges in implementing blogs as an effective assessment format. For example, students often have little to no previous experience of blogging which can impede engagement with it as an assessment (Kerawalla et al., 2009). Similarly, Kerawalla et al. (2009) warned that blog writing as an assessment in higher education should be grounded effectively in the course materials; without an effective sense of purpose, blogs as an assessment can be perceived as lacking clarity about their function, audience, and tone. Therefore, the expectations of blog writing should be made clear to students. Given the necessary alignment with subject-specific degree outcomes, blog writing may be best understood through a lens of psychological literacy, given that this approach encourages psychology students to apply their knowledge to daily life (Cranney et al., 2008, 2012).

Therefore, we propose that blog writing may provide a useful opportunity to allow students to apply their psychology content in a critical, creative, non-conventional way.

Context

Blogging as a formative assessment was introduced to the Cognition and Emotion and Face Perception modules in the 2017/18 and 2018/19 academic years, respectively. These are both elective final-year modules in the School of Psychology, University of Leeds in the United Kingdom. For both modules, the blog assignment contributed 50% of the overall module grade. Students had autonomy over the blog topic, as long as it was related to the module content, and were encouraged to take a creative and expressive approach to their blogs. Blog assignments were also supported with two small-group tutorials, where the challenges of communicating scientific findings to general audience were critically discussed with students. Students in both modules also received a lecture on blog writing, which covered the structure and purpose of scientific blogs. Students were also provided with examples of popular psychology blogs, including the BPS Research Digest, Mind Hacks, and BrainBlogger.

These assessments were graded using a grading rubric, which can be accessed here: https://osf.io/uztpb/ (Havelka et al., 2021). The rubric consisted of eight criteria: accuracy, application to question, evidence, argument, critical evaluation, structure/coherence, and presentation (i.e., mechanics of written English). Students were provided with the rubric early in the semester to familiarize themselves with the grading criteria, given the novelty of the assessment.

Initial Perceptions

To ascertain how students felt about the prospect of completing the scientific blog assessment, we asked students in the 2019/20 academic cohort to complete a brief evaluation questionnaire on the relevant modules. One hundred and fourteen students completed the questionnaire before the submission of their blog assignment. Students provided consent for their data to be used, though they completed the questionnaire anonymously. We did not collect any other demographic information as this could potentially allow students to be identified in the data.

Before completing the assignment, only 32.46% of students had read a scientific blog before. We then asked students to rate their confidence, worry, and excitement about the blog writing assignment on a series of 1–100 scales. Overall, before completing the assignment, students reported having low confidence (M = 39.31, SD = 20.52), and feeling mildly worried (M = 51.01, SD = 20.63), but also moderately excited (M = 58.62, SD = 19.05) about the nature of the assignment.

Finally, we asked students to rate how confident they felt in the prospect of “applying [their] psychological knowledge” in the assignment (1 = not at all confident; 100 = entirely confident), to which students felt marginally confident (M = 53.61, SD = 16.84).

We also invited students to share their main concerns using free-text responses. These responses were analyzed using a qualitative inductive coding system; this approach followed the established traditions of inductive content analysis. The text was read through extensively before coding the content of each response and establishing broad themes that summarize each content code. The core themes are summarized below.

Theme 1: Concerns About Language, Tone, and Writing Style

Our analysis observed that some respondents had an explicit concern for their language use in the blog format (40.35% of the 114 responses); students were concerned with getting the tone and style “correct” in the blog assessment and stressed that this is a largely unfamiliar type of writing. For example, one student noted that they were concerned about “not being able to write in the correct way” and another remarked that they were worried that they would “write [the blog] in the wrong style.”

Theme 2: Practical Concerns About Referencing and Formatting

We also coded a subset of the responses as containing concerns related to referencing and formatting of the assessment (20.18%). This code contained worries about the quantity, function, and source of academic citations within the assignment; for example, one student noted that “how to use references” was a concern. Other respondents in this theme were concerned about the practical formatting element of the assignment, including factors such as “formatting” or “how it should be laid out.”
**Theme 3: Concerns about structure**

Beyond the practical concerns about formatting and processing the text, some students were concerned about the structure of writing, in terms of how the argument and ideas within the blogs are communicated in a structured and clear way; 31.58% of the responses were coded as containing concerns related explicitly to structure. For example, respondents noted that “how to structure a blog” was a frequent concern.

**Theme 4: General Concerns**

As well as the responses containing specific concerns related to the content or structure of the blog, 35.09% responses contained more generic concerns about the prospect of attempting an unfamiliar assessment. Of these, some students noted that the idea of the assignment being “the unknown” was a concern, whereas others expressed general concerns about being “good enough” and “getting it right.”

**Student Feedback**

Following submission of the blog assignment, we then collected feedback on students’ perceptions on the blog assignment at the end of the academic year, in the form of both the annual module review process and the feedback coversheet that accompanies the assignments. This allows us to collect qualitative responses from students. Examples of these student feedback are below:

“I enjoyed the assessment part of this module as it allowed us to look at an aspect of psychology that we were interested in and then apply this to a real life situation that could have practical benefits.”

“I also like the idea of writing a scientific blog, as I feel it might be a useful skill to have to know how to present scientific information to the general public.”

“By far my favourite piece of coursework… It was a refreshing opportunity to take our minds down avenues we never thought we could. I noticed in my own personal development that I hugely enjoy working on my own initiative”

Other students referred to the assignment as an “innovative” and “fun challenge” and stressed that they “enjoyed being able to write in a different way.” Some of the responses also explicitly mentioned skills related to the concept of psychological literacy; for example, one student felt that blog writing “incorporates more real-world and transferable skills,” whereas others enjoyed the capacity to “speak in ‘science’ terms while being engaging and accessible.” Overall, therefore, student feedback was overwhelmingly positive, with several students explicitly noting that their psychological literacy skills were developed as a result of the blog writing assignment.

We were surprised at the lack of negative, or at least constructively critical, responses in the module review process; students made very few recommendations for how to improve the assignment and generally were satisfied with the structure and delivery of the assignment. However, from our perspective as instructors, we would make some minor amendments to the blog writing assignment in the future. For example, while we tried to ensure that students’ expectations were managed appropriately in terms of the writing style, tone, and structure, anecdotally, some students did appear to struggle with this. Therefore, educators who wish to embed this assignment into their practice may also wish to consider how the assignment preparation can be as supportive, well-defined, and clear as possible so as to effectively manage this challenge that students face with blog writing as an assignment. This may include, for example, additional support sessions for students who need it, wider examples of published blogs, and more opportunity for students to collectively discuss their blog ideas prior to writing their assignment.

However, despite some challenges, it is useful to note that students generally performed very well in the assessment; for example, in the 2020/21 academic year, the mean of blog grades was 68% \((SD = 5.5\% )\) for *Cognition and Emotion* and 65% \((SD = 8.6\% )\) for *Face Perception*, which constitute a high grade average. For context, in the United Kingdom a score of 70% constitutes a “first class” grade, which is the highest grade awarded, and scores which range from 60%–69% are in the “second class, upper division” (or 2:1) classification. Though we appreciate that the full extent of “student success” transcends beyond academic attainment (Pownall, 2020), this is useful preliminary evidence to suggest that students engage well with the blog writing assignment and score highly when applying the criteria as set out by our grading rubric (https://osf.io/uztpb/; Havelka et al., 2021). Future research on authentic assessment may also wish to extend inquiries into whether student perceptions of alternative assignments are indicative of academic performance. Finally, as a testament to students’ engagement and success with the writing format, some have since voluntarily published edited versions of their blogs in outlets such as the BPS’s student magazine PsychTalk and in other independent online blogs.

**Reflections and Moving Forward**

The ability to communicate psychological knowledge in a clear and accessible way is a fundamental tenet of psychological literacy (Cranney et al., 2012). Therefore, blog writing as an assessment may be a useful way of not only embedding psychological literacy into the curriculum but also in helping students to develop the skill of communicating science to a wider audience. This responds to the call for psychology undergraduate providers to identify and embed practical applications psychological literacy within the curriculum (Chew et al., 2018; Hulme et al., 2015). In this article, we have shared
our experiences of embedding a blog writing assignment in an undergraduate UK psychology program and have demonstrated that blog writing assignment can be a productive and useful authentic assessment. Despite some initial concerns about structure, writing style, formatting, and novelty of the blog writing assessment, students engaged well with the assessment and often framed their feedback in terms of psychological literacy. Due to the novelty of this assessment form and students’ concerns about the structure and tone of the assessment, we ensured that students were adequately supported throughout the assignment with instructional small-group sessions, extra resources, and examples of psychology blogs, all of which were particularly well received by students. This suggests that scientific blogs may be a promising assessment in the context of promoting students’ psychological literacy, particularly when students are supported in the transition to a new assessment type.

This article contributes to the ongoing diversification of formative assessments in psychology UK programs, with the view to promote undergraduates’ capacity to embed psychology knowledge practically, in a way that is applied to daily life (Soysa et al., 2013; see also Turner & Davila-Ross, 2015, for a discussion about the use of oral exams). Embedding psychological literacy assessments in the final year of a psychology program is logical, largely due to the association between psychological literacy, graduate attributes, and employability (Cranney & Dunn, 2011). Yet previous research has demonstrated that students’ perceptions of psychological literacy differ by year of enrollment (Harris et al., 2021 in preparation; Heritage et al., 2016) and that psychological literacy increases during the course of students’ studies (see also Morris et al., 2013). Therefore, it is important to understand how the psychological literacy of first- and second-year students can be promoted. Some work has considered how first-year students’ psychological literacy can be developed via peer mentoring (Chester et al., 2013) and reflective practice (Coulson & Homewood, 2016), and indeed, blog writing might foster an understanding and development of psychological literacy in these groups.

Given that the majority of undergraduate students will not become practicing psychologists in their career (Cranney et al., 2012), assessments should promote transferable skills. There is much debate about whether psychological literacy is specific to psychology programs, or whether it is a set of general outcomes applicable to all undergraduates (Harris et al., 2021). Therefore, it is also useful to consider whether blog writing in psychology programs is serving a fundamentally different function to blogs in other assignments and across other subjects. For example, Heritage et al. (2016) demonstrate that psychological literacy skills are often implicitly present in other disciplines (see also Murdoch et al., 2015). Therefore, future work in this area should consider whether blog writing, and other non-traditional assessments, can be tools for promoting psychological literacy across disciplines and/or specifically within psychology (e.g., Taylor-Jackson & Hulme, 2018).

To conclude, blog writing is a promising means by which the ability to communicate scientific thinking and psychological knowledge in a clear and appropriate manner may be evaluated within undergraduate psychology programs. It also raises student awareness about the importance of communication of evidence-based findings to general audience, thus contributing to global citizenship awareness. We hope future work is inspired by the description and reflection presented here, with the goal of diversifying assessment with the goals of psychological literacy in mind.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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