Evaluation of a Large-scale Inclusive Assessment Intervention: A Novel Approach to Quantifying Perceptions about Assessment Literacy

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Assessment literacy involves students having a clear understanding of standards and criteria (Price, Rust, O'Donovan, Handley, & Bryant, 2012), which allows for self-assessment (Panadero, Jonsson, & Botella, 2017) and the development of self-regulation (Zimmerman, 1990). Thus, enhancing students' assessment literacy may be one way to facilitate their development of self-regulation. Evidence suggests that in many cases, direct support is needed in order for students to become assessment literate (Nicol, 2010). The EAT Framework (Evans, 2016, 2018) provides research-informed recommendations for how to support the development of students' assessment literacy based on being explicit about requirements and standards. As a large-scale inclusive intervention used to scaffold students' development of assessment literacy, we introduced a standardised assessment brief template, built on the EAT Framework principles, across all first-year modules in a Faculty at the University of Surrey.

In order to evaluate our assessment brief intervention, we endeavoured to capture the diversity of students' experiences of whether they felt the assessment brief templates supported their assessment literacy, whilst retaining the opportunity to relate these experiences to individual differences in their self-regulation. In order to acquire the insight from qualitative perceptions that would normally only be possible from interviews, but with the larger sample of participants required to quantify these perceptions, we used open-ended questions to allow for free-text comments about how students perceived their development of assessment literacy had been supported through the intervention.

Issues have been raised about the usefulness of thematically analysing short qualitative responses (LaDonna, Taylor, & Lingard, 2018), so we analysed responses using an approach that focused on participants' choice of words, as this has been argued to have important psychological value and can reveal beliefs and thinking patterns (Pennebaker, Boyd, Jordan, & Blackburn, 2015). This approach has also been used previously for analysing open-ended questions (e.g. Niemeier, Chapp, & Henley, 2014).

The current study aimed to explore patterns between students' perceptions of the effectiveness of the assessment brief templates in developing their assessment literacy and their self-reported self-regulation.

Method

Participants

First-year undergraduate students ($N = 152$) across biosciences, health sciences, psychology and veterinary medicine disciplines participated in the study.

Measures

Metacognitive self-regulation: The 12-item metacognitive self-regulation subscale ($\alpha = .69$) from the Motivated Strategies for Learning Questionnaire (Pintrich & de Groot, 1990) was used to measure students' perceived self-regulation.

Perceptions about effectiveness of assessment brief: Four open-ended questions probing students' perceptions about how effective the assessment brief templates had been in developing their assessment literacy, were written based on the EAT Framework's (Evans, 2018) recommendations that were implemented into the assessment brief template design:

1. Do you feel that you understand why you have been set each assignment so far?
2. Have you understood the relevance and value of doing each assignment so far?
3. Have you been clear about what was required of you for each assignment so far?
4. Have you been clear about what you needed to do in order to do well in each assignment so far? Do you feel you understand what a 'good' attempt at each assignment would look like?

Results

Text analysis software, Linguistic Inquiry and Word Count (LIWC) (Pennebaker et al., 2015), was used to identify the presence of words in each response that appeared in particular linguistic domains, including: negations, affective processes (positive emotions, negative emotions, anxiety, anger, sadness), cognitive processes (insight, causation, discrepancy, tentative, certainty, differentiation), drives (achievement, reward, risk), and assent.

For each category of the LIWC analysis, participants fell into one category (i.e. response includes a word from this category) or another (i.e. response does not include a word from this category). Table 1 displays significant differences in students' self-regulation based on whether certain categories of words were present in responses.

Table 1. Significant differences in self-regulation based on language-use in students' responses

Outcome: self-regulation	Word from category not present in response	Word from category present in response		Illustrative quotation (words in bold are examples of words from that category present in the response)
	M (SD)	M (SD)	t-test	
Q1				
Negations	4.71 (0.70)	4.36 (0.71)	2.59*	"**no**, some of the work we have done has felt like time fillers and unrelated to my course" (low self-regulation, female, nursing student)
Discrepancies	4.68 (0.71)	4.35 (0.74)	2.04*	"I generally don't read the assessment brief template unless I don't understand what to do and **need** guidelines." (low self-regulation, female, psychology student)
Risks	4.66 (0.72)	4.03 (0.41)	2.46*	"…I have some **trouble** understanding the purpose of [one of my assignments]." (low self-regulation, female, psychology student)
Q2				
Negative Emotions	4.66 (0.72)	4.09 (0.41)	3.79**	"…I've always been **confused** as to why in some modules, the assignment is on something we didn't learn about in lectures" (low self-regulation, female, psychology student)
Anxieties	4.64 (0.72)	4.12 (0.15)	5.72***	"…I was **unsure** why we … had a biopsychology assignment specifically on a method instead of theory" (low self-regulation, female, psychology student)
Q4				
Positive Emotions	4.51 (0.70)	4.78 (0.72)	-2.32*	"…exemplar material has been a **great** way of pinpointing what is needed to be a **good** attempt" (high self-regulation, female, nursing student)

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

Through analysing the words used by participants when discussing the effectiveness of the assessment brief in developing their assessment literacy, findings suggest that when using negative language (i.e. negations, discrepancies, risks, negative emotions, and anxieties), this tended to be linked to lower self-regulation, whereas the opposite was true for positive language (i.e. positive emotions). Whilst the current study does not make any claims about causality between perceptions and self-regulation, these findings do indicate that the design of the assessment brief template has the potential for developing aspects of assessment literacy that are linked to self-regulation. The findings also provide support for using a linguistic analysis approach to analysing short qualitative responses in the assessment domain.

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