CHEMISTRY STUDENTS' CHANGING ATTITUDES TO ONLINE ASSESSMENTS

Jeffrey J. Black[a] and Siobhán S. Wills[a]

Presenting Author: Jeffrey J Black (jeffrey.black@unsw.edu.au)
[a]School of Chemistry, University of New South Wales, Sydney NSW 2052, Australia

KEYWORDS: digital assessment, student attitudes, generative AI, Chat GPT

From 2019 onwards, there has been a significant shift in the digital assessment landscape, along with a shift from in-person, paper-based invigilated assessment, to online and remote assessment. This was, in part, a response to COVID-19, but e-assessment was being investigated and pursued by universities well before then. E-assessment can offer many advantages. It provides greater flexibility in assessment with students able to sit remotely and at various times. It allows greater automation with assessment software producing individual assessments with randomisations for each student, and catering for diverse needs with supportive software; reducing staff workload with automated marking and potentially saving money. More importantly, digital assessment has the potential to transform assessment into more authentic forms, including incorporating software used by real scientists into the assessment process (JISC, 2020).

However, with this shift to digital, and especially remote assessment, questions are raised about the integrity of the assessment, and what other impacts remote assessment may have on students. To further complicate this issue the widespread access to generative artificial intelligence (GenAI) tools like *Chat GPT* raises questions regarding integrity and fairness of assessments, as well as what level of difficulty assessment tasks should incorporate to circumvent GenAI answers, or how to incorporate the use of GenAI in assessment tasks.

Using an in-term, multiple choice test from a first-year general chemistry course as our study environment, we have tracked changes in how students perceive digital assessment from 2019 onwards, over the COVID pandemic, and with the arrival of *Chat GPT* and other GenAI tools. A total of 447 students were surveyed using either a paper-based survey handed out at the start of the test for those sitting in person, or an online survey accessed via a link presented after completion of the test for those sitting remotely.

Our guiding research question was: How have student attitudes towards digital assessment changed with these significant world events; especially focusing on their confidence in university resources, and the integrity of assessment?

We have previously reported on students losing confidence in university resources during the COVID-19 lockdowns, and students sitting remotely having concerns for the integrity of the assessment, believing it is easier to cheat in an exam, and being less likely to agree that the exam is secure against cheating. Now we investigate if the additional changes with the widespread availability of generative AI like *ChatGPT* further causes concern, or if the effects of *ChatGPT* are insignificant compared to the existing effects of remote exams.

REFERENCES

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