COMPARING THE QUESTIONS IN ONLINE CHEMISTRY EXAMS TO PAPER-BASED EXAMS WITH THE USE OF BLOOMS TAXONOMY

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Paper-based summative exams represent the main form of final assessment in many science courses worldwide and they are typically comprised of multi-choice questions (MCQs) and short-answer questions (SAQs). These SAQs can take the form of written explanations, drawings or calculations. However, this process was complicated in early 2020 when the COVID-19 pandemic forced educators worldwide to switch to entirely open book electronic quizzes operated through a range of learning management systems. While online exams are not novel, their use on such a scale, with limited to no training for the teaching staff, was undeniably so. This study sought to investigate how the types of questions and the orders of thinking varied between 2019 (paper-based exams) and 2020 (online exams). The types of questions were generated prior to analysis through a process of individual categorisations and discussions to come to an agreement. The questions were also analysed through the lens of Bloom's taxonomy to consider how the thinking processes, and by extension the order of thinking, may have changed. In addition, the potential relationships between the type of question and its order of thinking were also explored. This talk will cover these comparisons of exam questions in online and paper-based exams.