

ALL THE WORLD'S A TWO-STAGE EXAM: ASSESSING GROUP RESEARCH RELATED PROBLEM SOLVING IN EXAMS

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Written examinations are an established part of university assessment, a tradition reaching back thousands of years. Examinations have been a favoured assessment format because they are considered objective, consistent and safeguarded against cheating. Unfortunately, traditional exams do not allow for the collaborative problem solving, integral to group-based learning; also, final examinations are 'dead-end' assessments, where students usually do not receive, (or have no opportunity to implement), feedback. One proposal to overcome these difficulties is the two-stage examination, where students spend most of their examination time in a traditional format (Stage 1), and part in a small group working on authentic problem-based questions collectively (Stage 2). This format better assesses real-world workplace skills, allows students to gain instantaneous feedback from their peers on their examination performance, and allows measurement of students' collaborative problem solving. Use of this format in tertiary STEM education in universities in the Americas has indicated that the practice is looked on favourably by students, although its effects on reducing stress and improving understanding are mixed. We review the results of previous studies on two-stage examinations, and propose a formula for employing them to assess research-based learning in a large-cohort Australian introductory biology course.

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