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Amit A Savkar^{*} (amit.savkar@uconn.edu), 341 Mansfield Road, Department of Mathematics, Storrs, CT 06269, and Briana Hennessy. A psychometric approach to transitioning assessments from the open response to multiple choice in differential and integral calculus. Preliminary report.

The need to efficiently and fairly grade midterm and final exams for differential and integral calculus has always been the focal point of discussions in various mathematics departments. When designing tests, faculty need to balance easy-to-grade multiple choice questions and open response formats which provide more information about student understanding. Open response questions also take time to grade and can have significant inter-rater reliability issues. Over the last three semesters, a project to understand how much information on students' understanding is lost in converting the open response questions to multiple choice question has been undertaken at the department of mathematics at University of Connecticut. We will present the design of this experiment, preliminary results that compare the performance of students on these questions and analysis for classifying students using both forms of exams. (Received September 25, 2018)