

1106-L1-1969 **Wes Maciejewski*** (wes@math.ubc.ca), 1984 Mathematics Road, Vancouver, BC V6T1Z2, Canada, and **Jon R Star** (jon_star@gse.harvard.edu), Gutman Library 442, 6 Appian Way, Cambridge, MA 02138. *Developing Flexible Derivative Procedures*. Preliminary report.

Procedures form an integral component of most introductory calculus courses. How students develop flexibility in executing these procedures is an under-explored topic. This presentation will report the results of a control-group trial, currently underway, of an intervention intended to improve students' flexibility with derivative-finding procedures. In the study, all students first complete a quiz on finding derivatives for product and rational functions. Students in the intervention section will then complete a worksheet of product and quotient derivative problems. Each question statement asks the students to solve the problem using one method, then again with another. Students are then prompted to evaluate which solution method is "better" and to justify this choice. The non-intervention students complete a similar assignment but are not required to re-solve problems using different methods nor are they prompted to reflect on their solution. All students will then be presented product and rational derivative problems on their midterm exams. We expect to find intervention students attempting variations on the canonical procedures typically used on these problems. (Received September 15, 2014)