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Caleb L Adams* (cadams5@radford.edu), Department of Mathematics and Statistics, Radford, VA 24142. *Learning by Teaching: An Instructor's View of Active Learning Mathematics in a Flipped Calculus 1 Course*. Preliminary report.

Active learning is an instructional method which engages the student in the learning process, often involving activities within a class session that not only requires students to complete the activities, but also reflect on what they have done. This student-centered approach allows for more active learning within the classroom and allows the instructor to provide feedback in real-time manner to promote the students' conceptual understanding of material. With this process open to both individual understanding as well as peer-mediated learning, a variety of cognitive levels of learning can be reached. This manner of instruction and learning has been analyzed and found to be a very effective method within the STEM fields. The project presented is the second year of a multiyear study on examining how the implementation of the flipped classroom approach in Calculus influenced students' math achievement and attitudes about math and learning. Additionally presented is a personal review of the process, including changes made from the first year to the second which has led to a higher impact on student learning. (Received December 10, 2015)