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The Learning Glass is an innovative new instructional technology that holds considerable promise for engaging STEM class students and improving their learning outcomes. The Learning Glass screen acts as a transparent whiteboard. The instructor writes on a glass screen with LED illuminated edges. A camera on the opposite side of the glass records the video and horizontally flips the image (and hence the instructor is not required to write backwards). In this report, we share the results of two phase efficacy study between online calculus-based physics courses using Learning Glass technology, and large auditorium-style lecture-hall taught via document projector. All the classes were taught by the same instructor using identical content and materials. Our quasi-experimental design involved identical pre- and post-course assessments evaluating students' attitudes and their conceptual learning gains. In this presentation, we will share the results of both studies and compare them. The results so far are promising, with equivalent learning gains for all students, including minority and economically disadvantaged students. (Received September 21, 2016)