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Minsu Kim* (mkim@gsc.edu), Gainesville State College, Post Office Box 1358, Gainesville, GA 30503. *The effect of preview video lectures using Smart Board, Camtasia Studios, and Podcasting on mathematical achievement and mathematics self-efficacy.* Preliminary report.

Mathematics instructors at colleges or universities have developed pedagogical approaches and methods both inside and outside the classroom through streaming video and podcasting because nowadays students are able to access the Internet everywhere using computers, iPhones, iPods, or smartphones. In addition, streaming video in higher education significantly influences students' achievements. The purpose of this study is to examine the effectiveness of preview video lectures about 5 minutes in length for each lecture using Smart Board, Camtasia Studios, and Podcasting in terms of mathematical achievement and mathematics self-efficacy in developmental mathematics and college algebra courses at a college. Data from approximately 180 students in six sections have been collected for two semesters through a classroom observation checklist of classwork, a questionnaire, the Mathematics Self-Efficacy Scales (MSES), a first exam, a final exam, and the COMPASS test. The results of this study will have implications for faculty and online system developers of textbooks and contribute to pedagogical approaches outside the classroom in mathematics education. (Received September 05, 2012)