1116-H5-863 **Wei Wei*** (wei.wei@metrostate.edu), Metropolitan State University, Department of Mathematics, 700 East 7th Street, Saint Paul, MN 55106, and **Katherine Johnson** (katherine.johnson@metrostate.edu). *The fair use of graphing calculators in an introductory statistics course.*

Graphing calculators have been used for teaching introductory statistics courses for decades. They help students to obtain accurate statistical analysis results. However, heavily relying on graphing calculators may hinder students understanding of certain statistical concepts such as the normal distribution, p-value, and test statistic. In this study, we focused on the effects of using a graphing calculator on students' performance of calculating normal probabilities, performing a hypothesis test and understanding basic concepts related to the normal distribution and hypothesis testing. We also studied whether using a graphing calculator helped with students' short-term retention. Our findings were: 1) using the normal functions on a TI calculator, normalcdf and invnorm, significantly increased students' performance of calculating probabilities and significantly improved their understanding of the normal transformation; 2) the hypothesis testing functions, T-Test and 2-PropZTest, significantly helped students to conduct hypothesis tests, but hindered students' understanding of p-value; 3) using TI calculators had no correlation with short-term retention. The authors will present a solution on the use of graphing calculator in teaching an introductory statistics course. (Received September 14, 2015)