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Minneapolis, MN. Effects of using tablets in lectures on student learning outcomes in mathematics courses.

Studies have shown that the use of tablets facilitates learner-centered education in mathematics, statistics and engineering. However, there is no research comparing student learning outcomes from the lectures using a tablet to those using whiteboard or PowerPoint slides. In this study, we investigated whether students are in favor of lectures using tablets and whether using a tablet to teach leads to better learning outcomes compared to lectures using white board or PowerPoint slides. Data were collected from quiz grades and attitude surveys at the end of each chapter from an undergraduate Statistics and Discrete Mathematics course. Each chapter was taught with one of the three methods: tablets, PowerPoint slides and white board. Our results are: student quiz grades were significantly higher when using tablets or PowerPoint slides in lectures than using white board; the use of tablets and PowerPoint slides are not significantly different to those using tablets. (Received August 24, 2012)