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Transforming the Calculus Classroom with WeBWorK CLASS.

Tablet technology, digital ink, and an online homework system like WeBWorK provides the ultimate classroom engagement system. By adding enhancements such as an integrated whiteboard, tree sorting, digital work maps, and classroom sharing to WeBWorK, WeBWorK CLASS (Collaborative Learning and Active Support System) was created. We will share how our implementation of WeBWorK CLASS in a first semester calculus course during the Spring and Fall 2013 semesters transformed the learning environment from lecture to active student learning. Besides providing students immediate feedback on practice problems outside of class, it provides the instructor access to authentic student work during class which may be used to generate discussion. Student generated solutions allow the instructor to facilitate learning by examining multiple solution paths, what constitutes appropriate mathematical notation/work, conjecturing, and making connections among concepts. Further, the system can be used to track student learning across the semester. (Received September 18, 2013)