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Laurie Riggs* (lriggs@csupomona.edu), Department of Mathematics and Statistics, 3801 West Temple Ave., Pomona, CA 91768. *Using technology to build understanding in teaching and learning mathematics*. Preliminary report.

Teachers and future teachers need a deep understanding of the mathematics they are to teach. If they only have algorithms and rules for doing mathematics that is what they will transfer to their students. Future teachers need opportunities to explore and engage in mathematics in order to develop their own conceptual knowledge. The use of technology in the university classroom for demonstration and exploratory projects can help teachers build a strong knowledge base. It can also be used to model teaching strategies that can be used in their own classrooms.

This session will demonstrate the use of technology to support the teaching and learning of mathematics. We will see sample projects and demonstration models that build key concepts. Teacher developed models will also be shared along with preliminary results from an action research project involving the use of technology to teach mathematics in a middle school. (Received November 28, 2011)