

Math Snacks: Filling conceptual gaps in mathematics with innovative media

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This presentation will share the design and implementation of innovative games and animations developed to address conceptual gaps in 5th-7th grade mathematics. The web-based and mobile materials include strong support for teachers including videos of teachers using Math Snacks with their students, teacher guides, student learning guides and comic book text for English Language Learners. Research behind the development of a different way for students to learn math will be shared through a lesson with the participants.. All of the Math Snacks connect technology-based resources with inquiry learning activities, align with Common Core Standards-Mathematics and are free online at <http://Mathsnacks.org>. Now available in Spanish

Best Practices Presentation

This presentation briefly describes the research and theoretical framework that lead to a successful National Science Foundation-funded five year project to develop and implement games and animations designed to correct students' misconceptions of core mathematical ideas in number & operations, proportional thinking, graphing and ratios. The Math Snacks products include games, animations, teacher guides, learning guides, comic book transcripts and extensive teacher support including videos of classes using the products. Math Snacks is available at no-cost at <http://mathsnacks.org>.

The P.I. for this grant will share the recommended way for teaching Math Snacks which involves using games and videos along with inquiry-based learning. If possible, I will engage the attendees in a short lesson that illustrates relationships between ratios in a real world situation. We will have a hand-out that shares some of the gains students have made in basic math concepts by using Math Snacks. The presentation demonstrates how powerful online resources when used with inquiry activities can help students to overcome misunderstandings of core math concepts in upper elementary and middle school mathematics. The presenter will provide information on how the materials were developed and tested using formative testing in a Learning Games lab, testing in Math Snacks summer camps, and finally the results of current random-controlled testing with over 1000 students in over 50 classrooms that were conducted this year.