

# Math Snacks: Using innovative media to address conceptual gaps in mathematics understanding

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# <http://www.mathsnacks.com>

## MATH SNACKS

Yummy animations and games to help kids learn concepts behind math.

NM STATE Learning Games Lab

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**Math Snacks News** | *Math Snacks* will be available in Spanish soon.

### Available on iPad



Using Math Snacks on mobile devices, like the iPad, helps kids take the learning on the go. iPads and iPods are also great classroom tools, when you can't take the entire class to a computer lab.



### Bad Date



This humorous animation visualizes the ratio of words spoken on a series of dates.

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### Atlantean Dodgeball



Ratio errors confuse one of the coaches in an epic dodgeball tournament.

[View Snack](#)

# Theoretical Framework

- Other gaps in learning mathematics
  - Key concepts that have “high mileage”
  - “Vertical power”
- Concept Image vs. Concept Definition
  - Multiple visual representations

# Objectives

- Gaps
- Goals
- Product
- Technology

# Gaps

- An analysis of over 24,000 student scores in 3<sup>rd</sup> -8<sup>th</sup> grade in high-need NM districts showed consistent areas of weakness
- 3 Criteria when selecting a gap:
  - Is it a key concept in Mathematics?
  - Is it easy to build on?
  - Can technology make the concept more accessible?
- Number Line example: Using mathematical models to interpret and analyze numerical data

# Goals

- Developed based on criteria from previous slide
- Usually has 3 broad mathematical “big ideas”, with examples and scenarios in real life
- Number Line Example: Use a number line to order, compare, and measure with whole numbers, fractions, mixed numbers, and decimals.

# Product

- Created with the student's concept image in mind
- Goes through many iterations
- Pilot testing with students and teachers in Learning Games Lab
- Number Line Example: Number Rights

# Technology

- iPad and iPod distribution
- Available online at [www.mathsnacks.com](http://www.mathsnacks.com)
- Learner and Teacher guides also available

# Math Games Camp

- Working directly with kids and teachers in their own classrooms
- One week (5 days) in Summer 2010
- Two teachers per 8-10 students, hand picked and diverse
- Technology intense, built around a math snack

# Questions?

- Contact me at [milos@nmsu.edu](mailto:milos@nmsu.edu) or Karen Trujillo at [karentrujillolc@gmail.com](mailto:karentrujillolc@gmail.com)

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