CSTA
Non-CS Teachers Teaching Bootstrap

Floresa Vaughn
Marisa Brown
Emmanuel Schanzer
Eugene Lemon
Who are we?

• Teaching background
• How did we interested in Bootstrap?
Who are our students?

• Personal and academic struggles, strengths, and needs
• Challenges with math
Why intervention is important?

• Repeat Algebra students
• ELL students
Why Bootstrap?

• Why not another program?

• 1) Functional language
  – Getting the arithmetic right: \(1/3 \times 3\) should equal 1...but in most languages (like python and javascript) it isn’t!
  – Getting the algebra right: programs like Scratch don’t have \textit{real} functions or variables.
  – Making algebra fun: the language in Bootstrap extends algebra into really fun things, like pictures and animations.

• 2) True alignment to math
  – Only programming curriculum that is \textit{truly} a math class
  – Aligned to common core math standards
  – Every single concept being taught applies in a math class, even if you turn off the computers.

• 3) A curriculum that’s made for teachers
  – Lesson plans are more than a list of activities. Bootstrap includes suggestions for examples on the board, notes for teachers, and common misconceptions.
  – Even lesson plans are not enough! Bootstrap also has homework assignments, Do Nows, Exit Slips, and an integrated workbook.
Why it works for our students?

- Training
- Our experiences
- Teaching
- Engagement
- Design Recipe
- Sense of Accomplishment
What did we learn?

• Examples from curriculum
• Tips for teachers
• Building confidence
What are the challenges?

- Students consistency—attendance, work
- We had questions about programming
- Set up/system
- Classroom management in a computer lab
Pre and Post Tests

• Show and discuss pre and post test results
Student Responses

• Student video/quotes
How can you start using Bootstrap in your classroom?

• Visit website
• Go to a training
• Build your own game
• Determine where and when it can be used in your class
Questions?

• Q & A