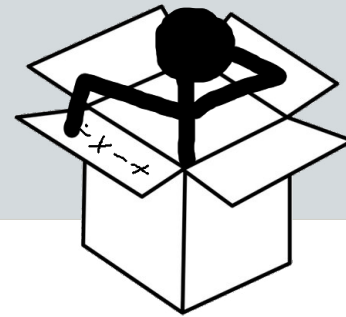


Math Outside

the

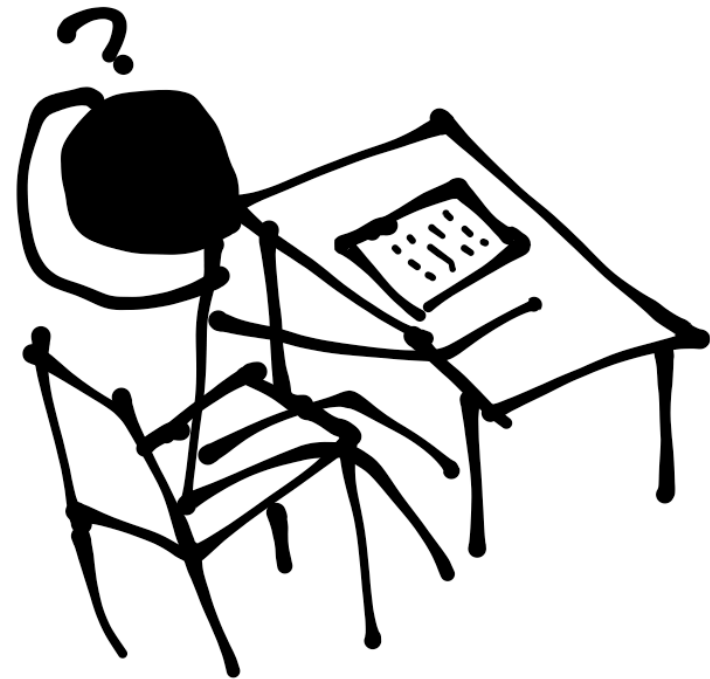


Interactive Medium-fi Prototype

Ashlee Reynolds, Charlie Yu, David Young, Brad Huang

Overview

- Changes to the three Tasks
- Revised UIs
- Three Scenarios
- Using JustInMind
- Wizard of Oz
- Summary



Three Tasks

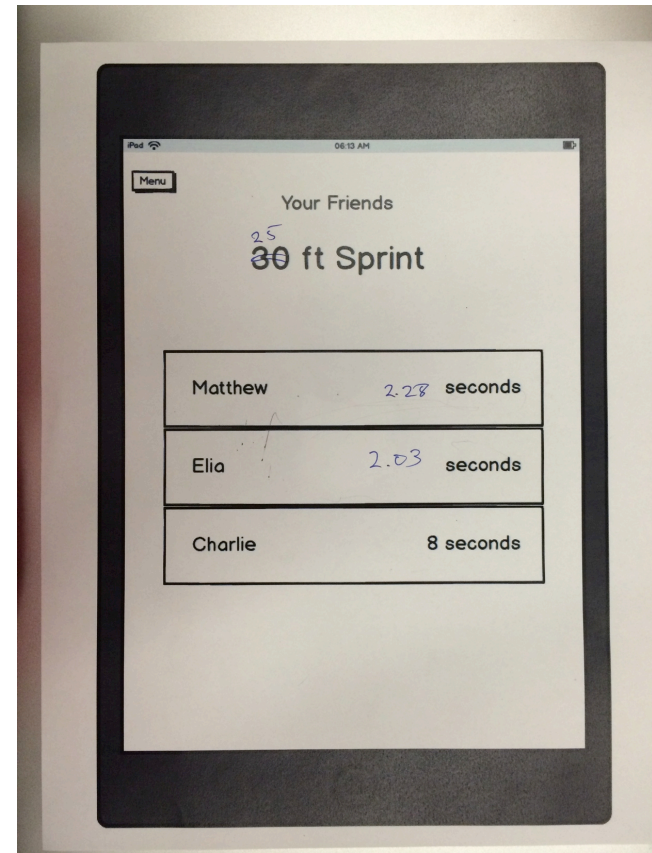
The Challenge



Parent Mode

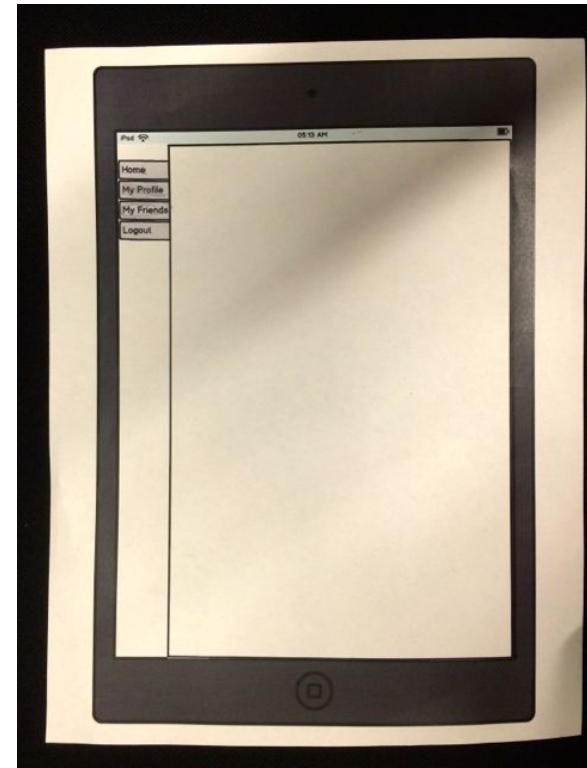
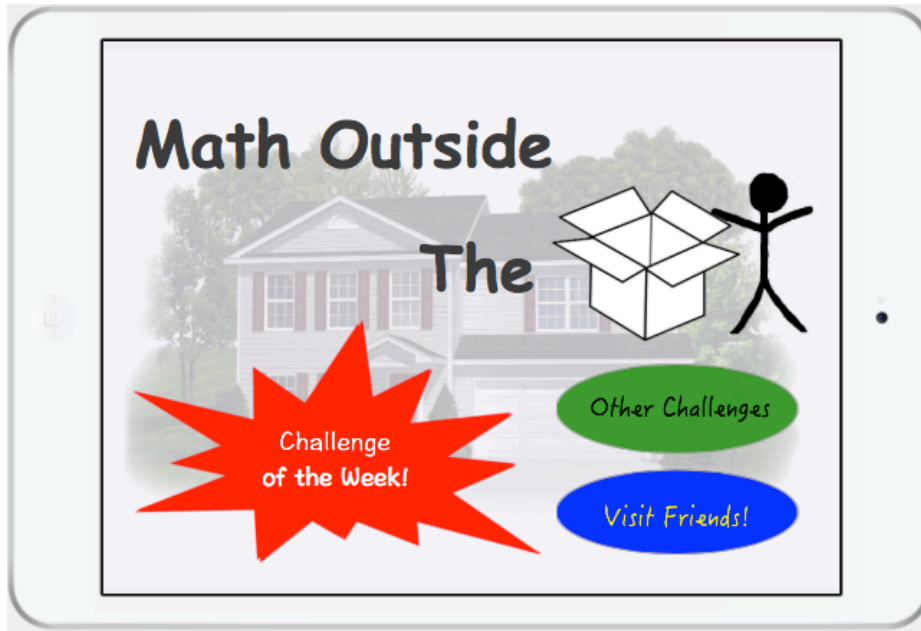


The Social Task



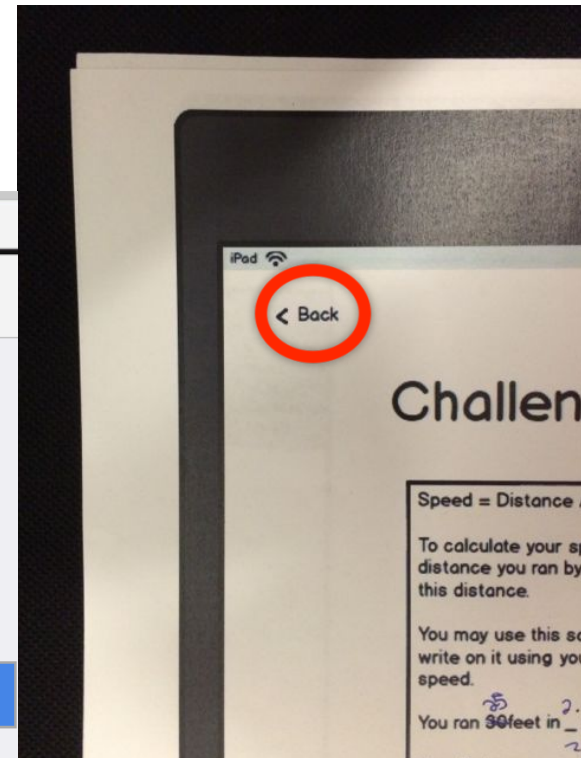
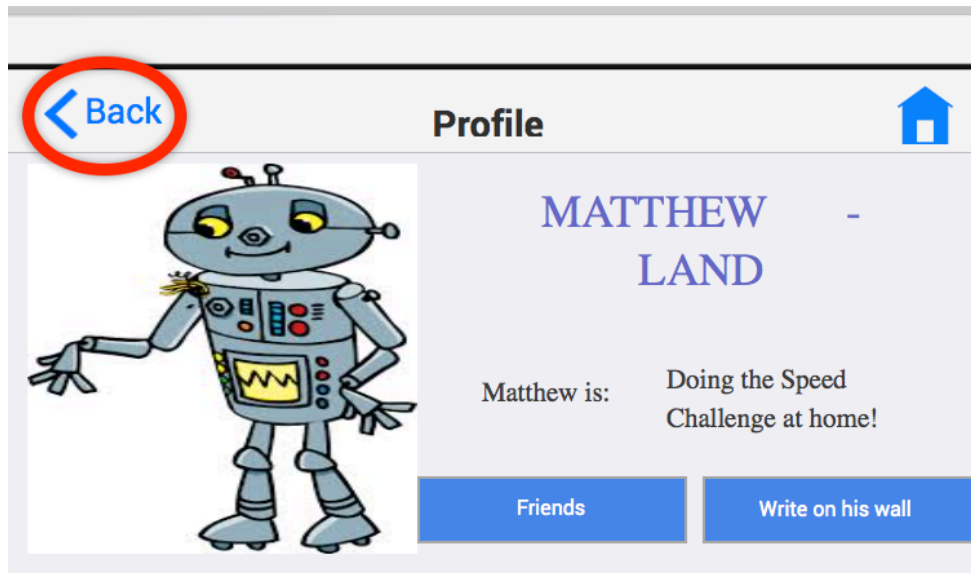
Revised UI Designs

- Menu



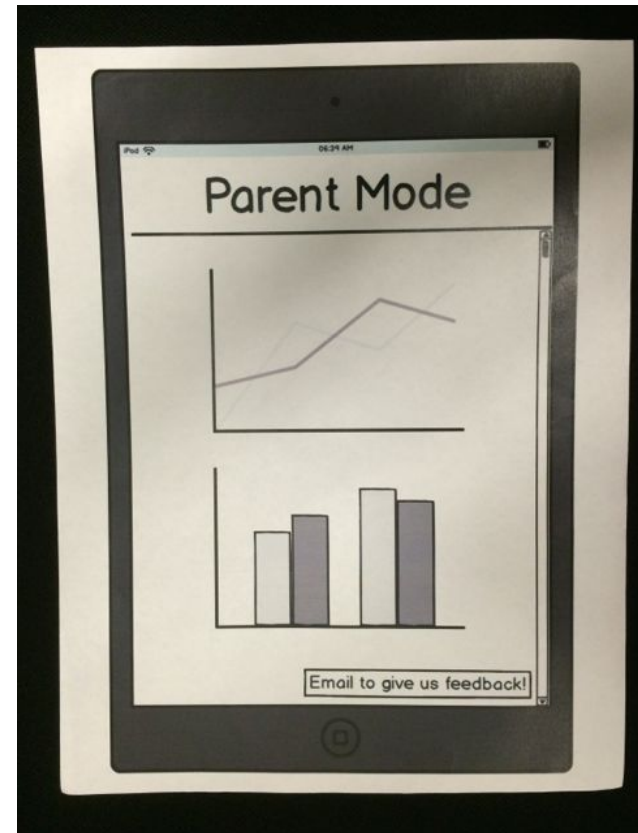
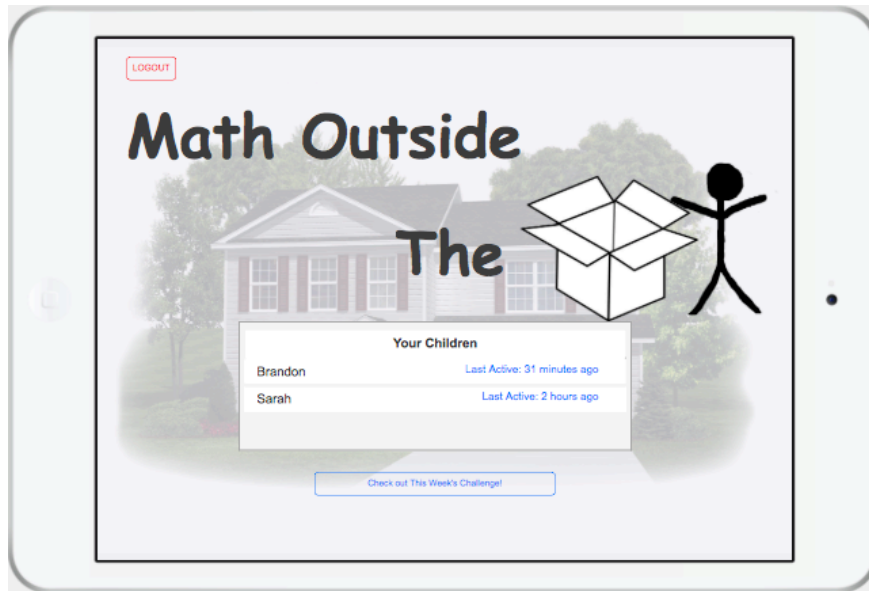
Revised UI Designs

- Buttons



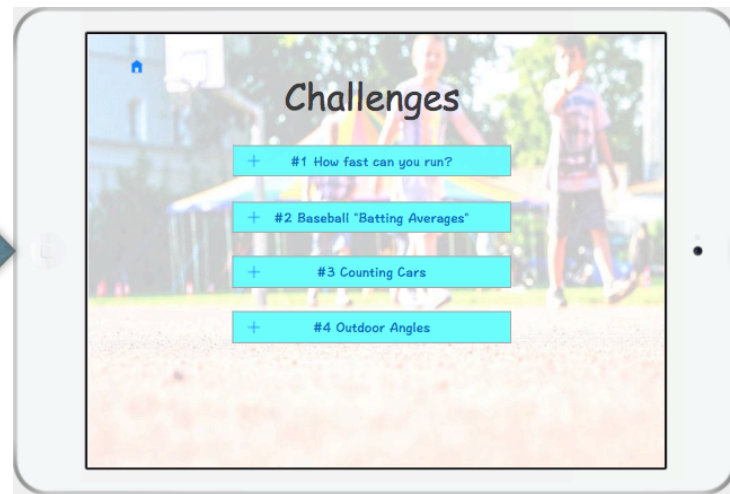
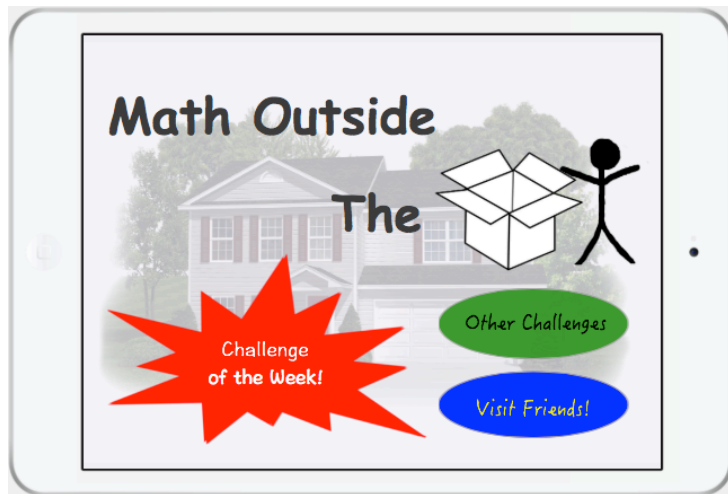
Revised UI Designs

- Parent Control



Scenario 1

Running Challenge



Scenario 1

Running Challenge



Scenario 1

Running Challenge

Distance

Find a large space outdoors.
Pick a start point and use your tape measure to measure some distance (in feet) from that place.
That will be your finish line.

Did it! Now let's find my time!

Now let's find the time it takes you to run 30 feet.
Go to the "Toolkit" and select the "Stopwatch"
Start the timer, run 30 feet, then stop the timer.
Tell us your time!

Done! I want to know my speed!

Distance

Find a large space outdoors.
Pick a start point and use your tape measure to measure some distance (in feet) from that place.
That will be your finish line.

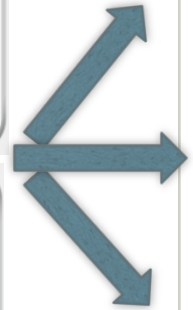
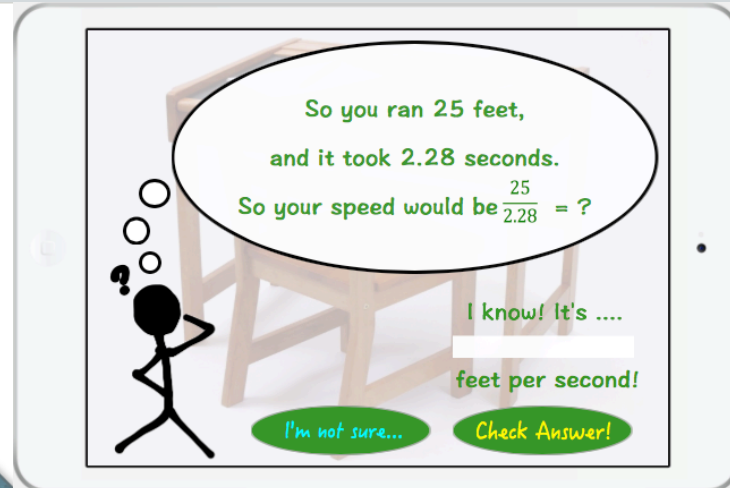
< Back

Stopwatch

0:00.20

Scenario 1

Running Challenge



Scenario 1

Running Challenge

Your speed is

$$\frac{25}{2.28} = \frac{2.28 \times 10 + 2.2}{2.28} = 10 \frac{2.2}{2.28} = 10.96$$

feet per second!

Try another division problem!

Do another challenge!

Good job!
Now we know that your speed is 10.96 feet per second!

Now you want ~

Try another problem!

Do another challenge!

See Complete Solution!

Hmm... Not quite right...
Do you want to try again?

Yes, try again!

I'll see the solution!

Solution

Scenario 1

Running Challenge

Your speed is

$$\frac{25}{2.28} = \frac{2.28 \times 10 + 2.2}{2.28} = 10 \frac{2.2}{2.28} = 10.96$$

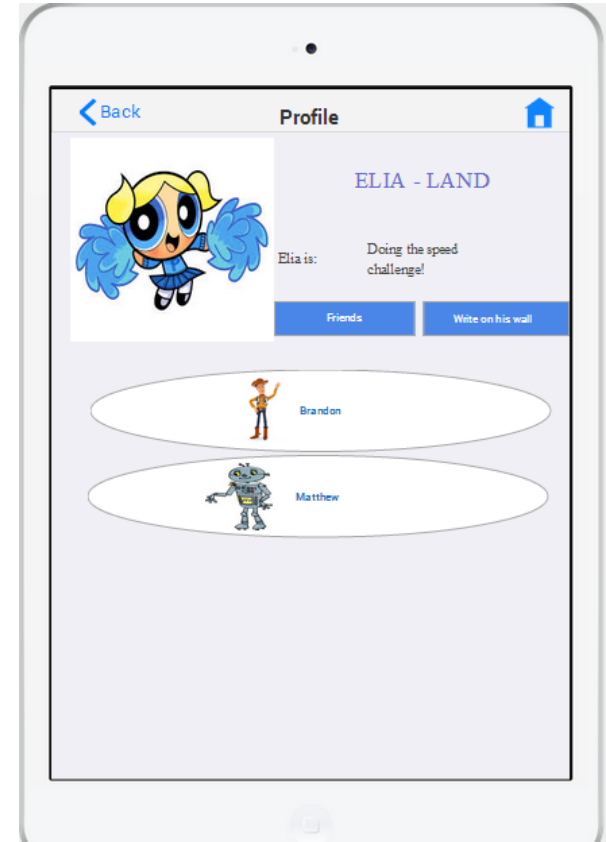
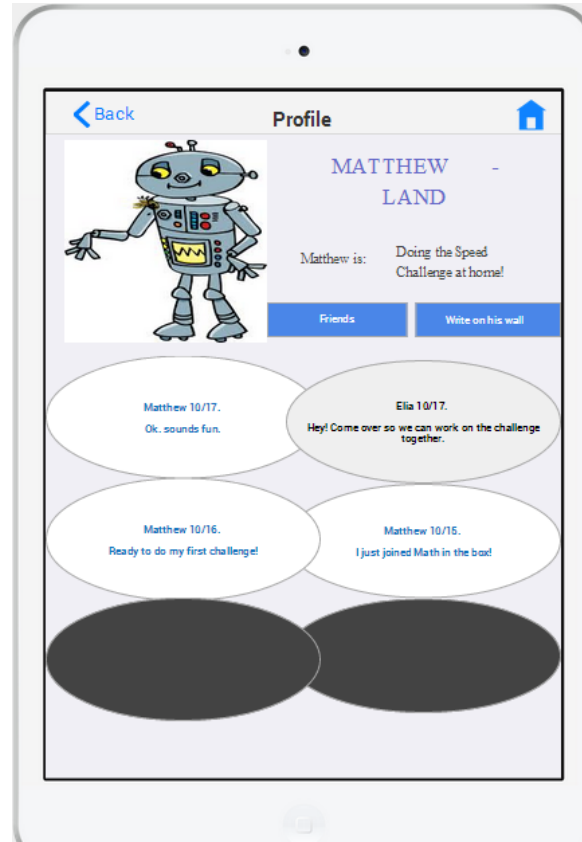
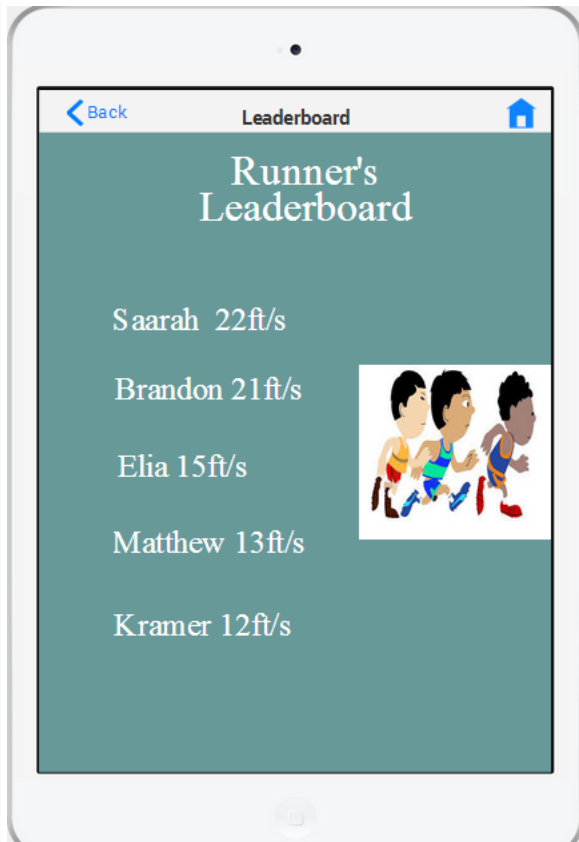
feet per second!

Try another division problem!

Do another challenge!

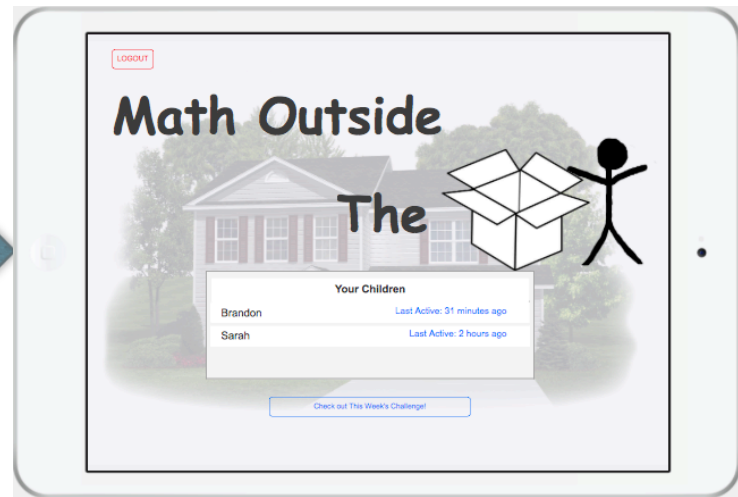
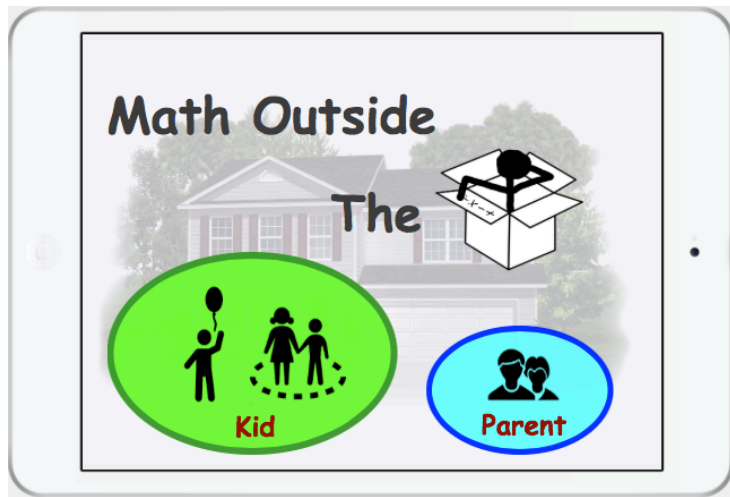
Scenario 2

Elia visits Matthew-Land



Scenario 3

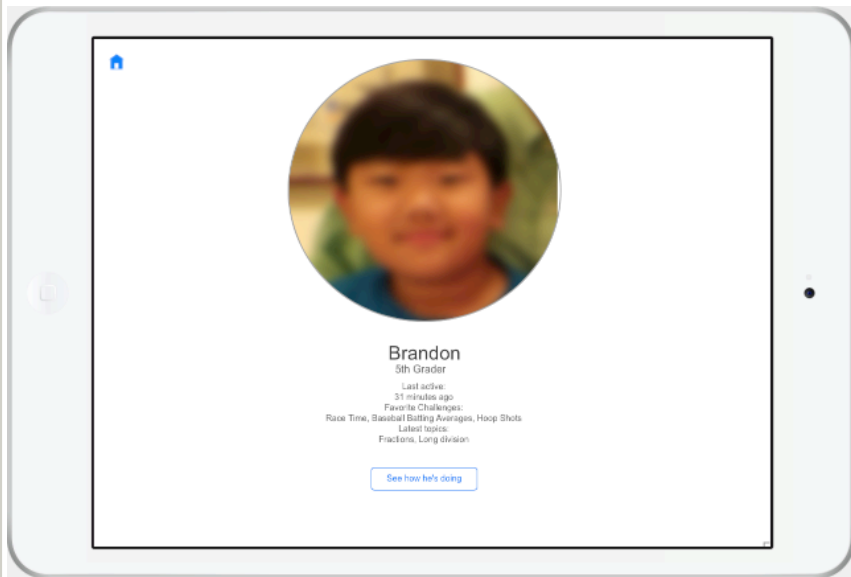
Parent Control



To challenge

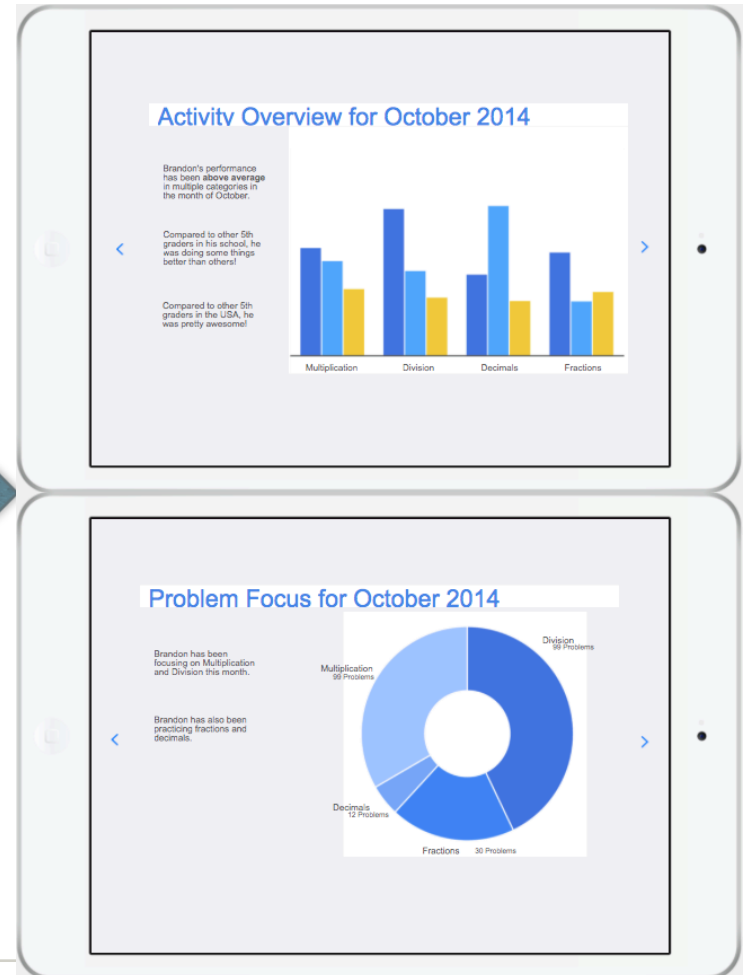
Scenario 3

Parent Control



Brandon
5th Grader
Last active
31 minutes ago
Favorite Challenges:
Race Time, Baseball Batting Averages, Hoop Shots
Latest topic:
Fractions, Long division

[See how he's doing](#)



Activity Overview for October 2014

Brandon's performance has been above average in multiple categories in the month of October.

Compared to other 5th graders in his school, he was doing some things better than others!

Compared to other 5th graders in the USA, he was pretty awesome!

Category	School Average	USA Average
Multiplication	High	Medium
Division	Very High	Medium
Decimals	High	Medium
Fractions	Medium	Medium

Problem Focus for October 2014

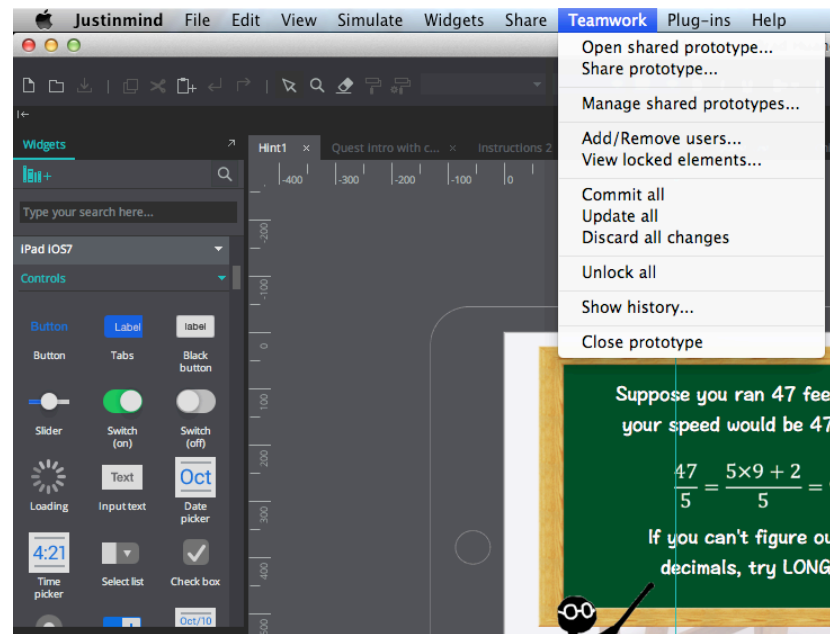
Brandon has been focusing on Multiplication and Division this month.

Brandon has also been practicing fractions and decimals.

Category	Count
Multiplication	50 Problems
Division	60 Problems
Fractions	30 Problems
Decimals	12 Problems

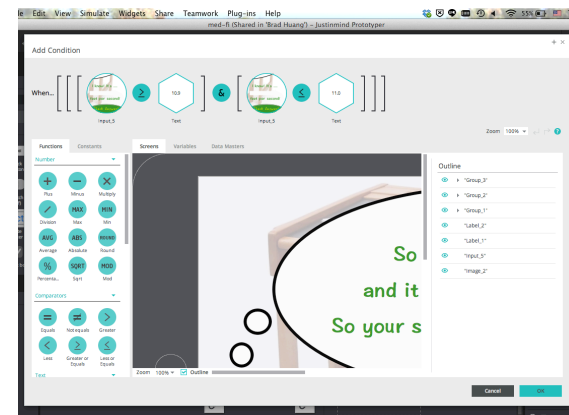
JustinMind - pros

- Good icon library
- Similar metaphors as other prototyping tools
- Freedom
- Teamwork



JustInMind - cons

- Not intuitive when creating interactive events
- Performance issues
- Limited overview capability
- Teamwork not always working



Wizard of Oz

So you ran 25 feet,
and it took 2.28 seconds.
So your speed would be $\frac{25}{2.28} = ?$

I know! It's
feet per second!

I'm not sure... Check Answer!

1024 x 768

Summary

- Improvements in the interfaces
- Clear flow between and within different tasks
- More improvements needed for dynamic events
 - However needs database to back up

