

Math Outside the Box

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Overview

- * Mission Statement
- * Representative Tasks
- * Lo-Fi prototype structure
- * 3 scenarios shown carrying out each task w/ lo-fi
- * Experimental method
- * Experimental results
- * Suggested UI changes
- * Summary

Team Mission Statement

- * To engage young children with mathematics through fun and instructive challenges



Task 1: Real World Challenge

- * Their world
- * Repeatable
 - * “Fun”

Task 2: Math Challenge

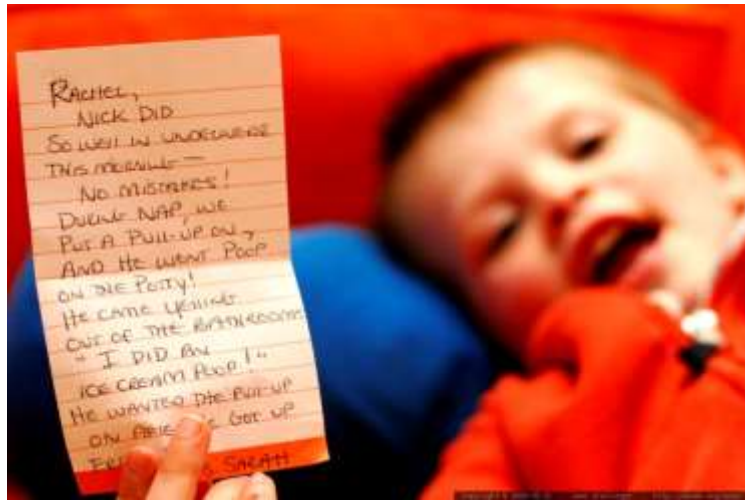


- * Interesting
- * Open ended
- * Memorable

- * ex: Batting averages

Task 3: Parental Support

* Know



* Support



Lo-fi prototype



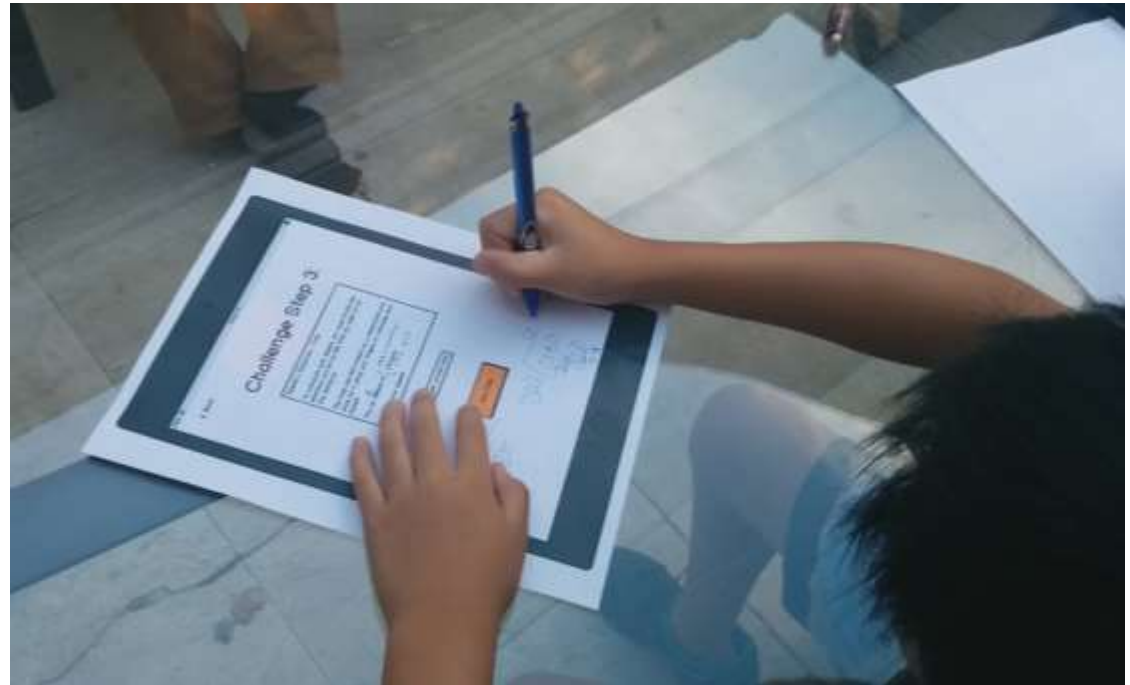
Scenario 1: Real World Challenge

Set up a race!



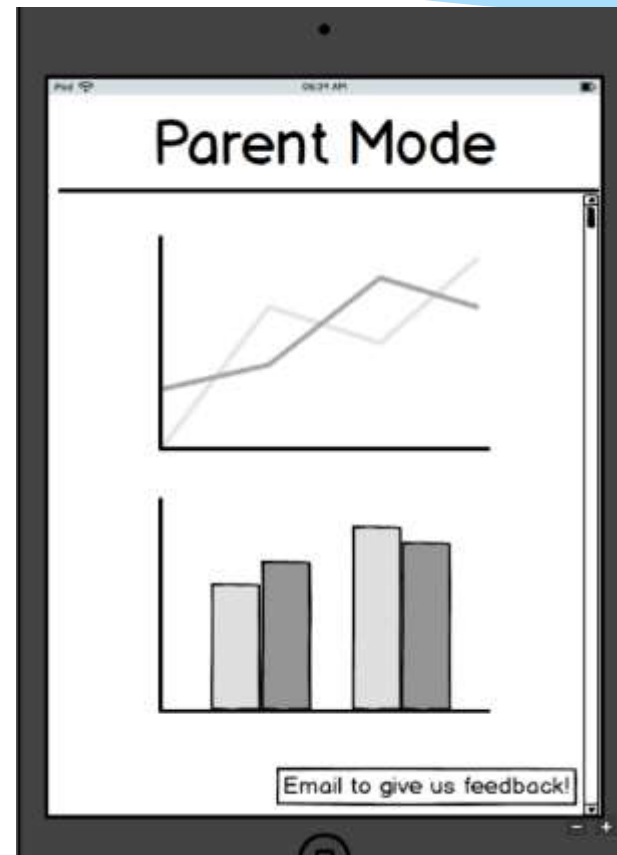
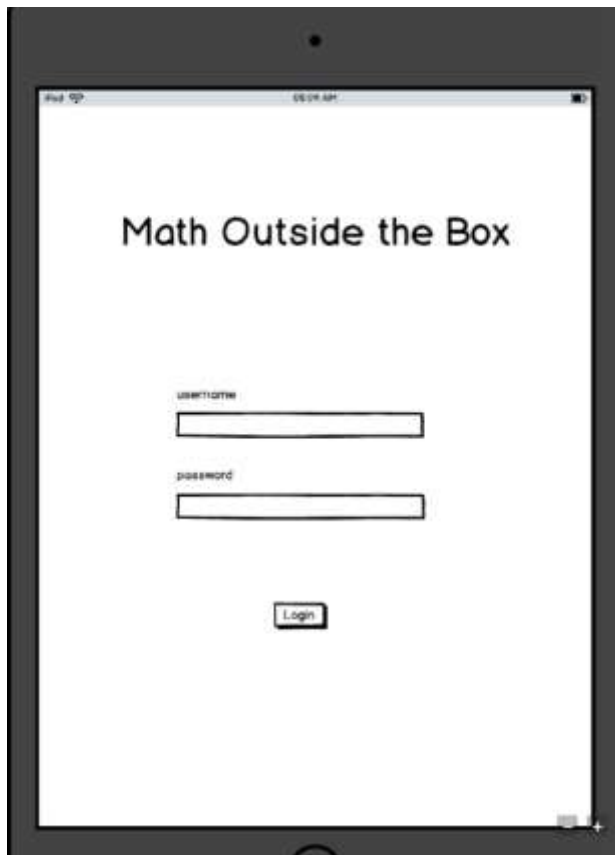
Scenario 2: Math Challenge

Calculate your time!



Scenario 3: Parental Support

Check up on your child



Experimental Method

- * Team division
- * Guided task performance
- * Think aloud protocol
- * “What would you do”

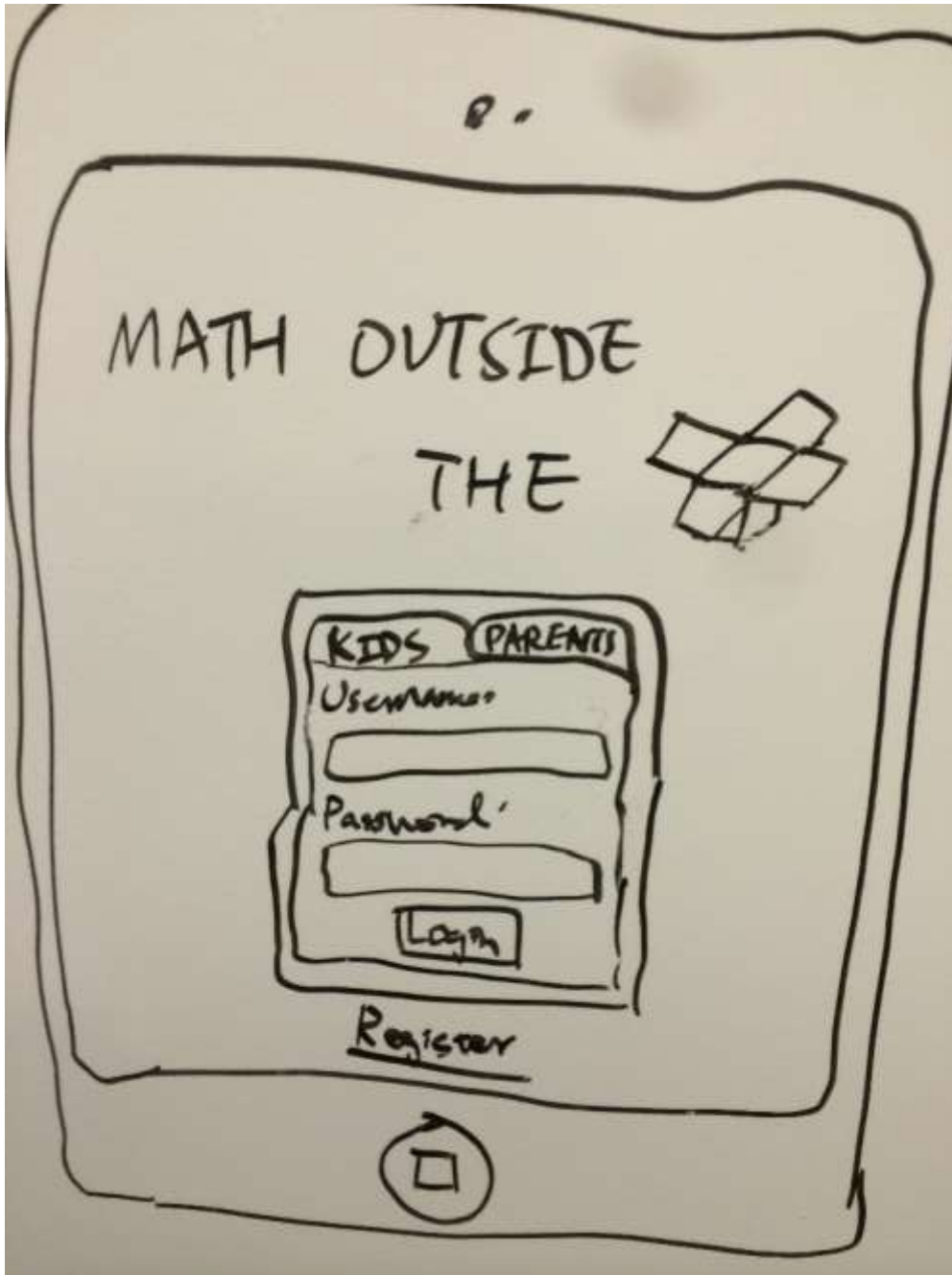
Experimental Results - Visual

- * Button reformatting
 - * Larger and rounder
 - * More and more instructive
- * Less text, simpler instructions -> more graphics, visuals
- * Anthropomorphization (personification + cartooning)
- * Make sure we have common mappings for mathematic operators

Experimental Results - Structural

- * Condense and simplify
- * Add semi-transparent note canvas
- * Add hints along the way
- * Add rewards that unlock socialization with friends
- * Add access screens for friends and games
- * Separate login screens for parents and students
- * Move to Freemium model
- * Fix bugs

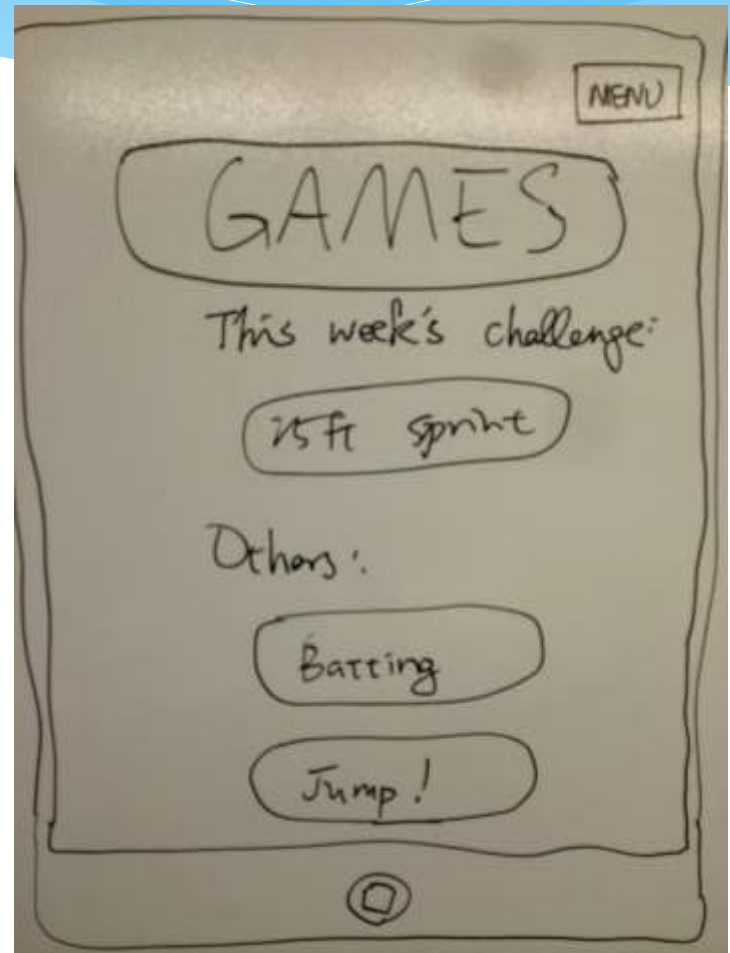
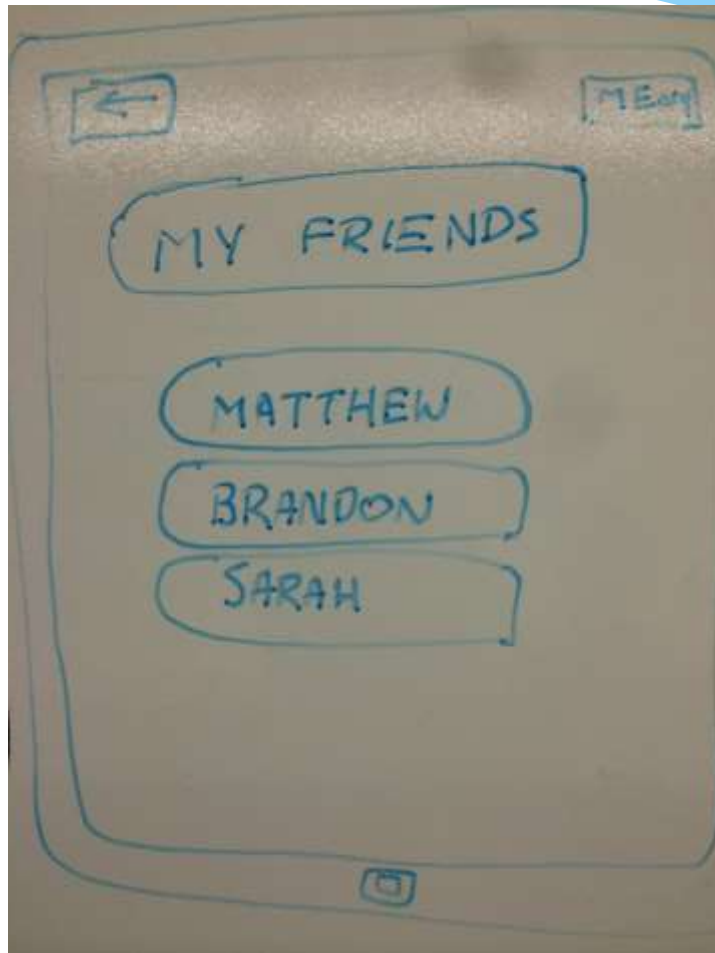
UI Change 1: Login Screen



UI Change 2: Personification



UI Change 3: Access Screens



Summary of Talk

- * Pivot to Math Outside the Box
- * Children want to have more interaction
- * Next steps: Prepare medium fi prototype

Sources

- * Sources:

- * “Tambako the Jaguar” - <https://www.flickr.com/photos/tambako/6257204439/in/photostream/> - Accessed 10/22/2014
- * Ken Bosma - <https://www.flickr.com/photos/kretyen/2506613805> - Accessed 10/22/2014
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