

# Group 3: Interim Presentation

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# Think It By Hand App (recap)

## Think It By Hand

- Provides learning materials for hands on math, science, language arts education K-12
- Products & services are designed to involve students to learn at conceptual/procedural level

## The Application

- A tablet application meant to teach math to children (K-8) with disabilities

# Phases Research & Timeline

- Phase 1: Requirements
  - Week 1 & 2
- Phase 2: Design & Feedback from 131/132 Peers
  - Week 3 & 4
- Phase 3: Wire Frame Development
  - Week 4 & 5
- Phase 4: First Round Usability Testing
  - Late Week 5 (May 5)
- Phase 5: Modification & Development
  - Week 6 & 7
- Phase 6: Second Round of Testing
  - Week 8 (May 26)
- Phase 7: More modification & Finalize Development
  - Week 9 & 10

# Our Current Progress

- Peer Feedback
- Low-Fidelity Designs
- Prototypes
- Initial Testing (Saturday May 5th)

# 132 Peer Feedback

Peer 1: *"It looks good"*

Peer 2:

- Stop watch aspect was hard to follow
- **Deletion of placement does not seem like a good hint (child may start to guess)**
- Fix the white space, the "Go" button looks out of place

Peer 3:

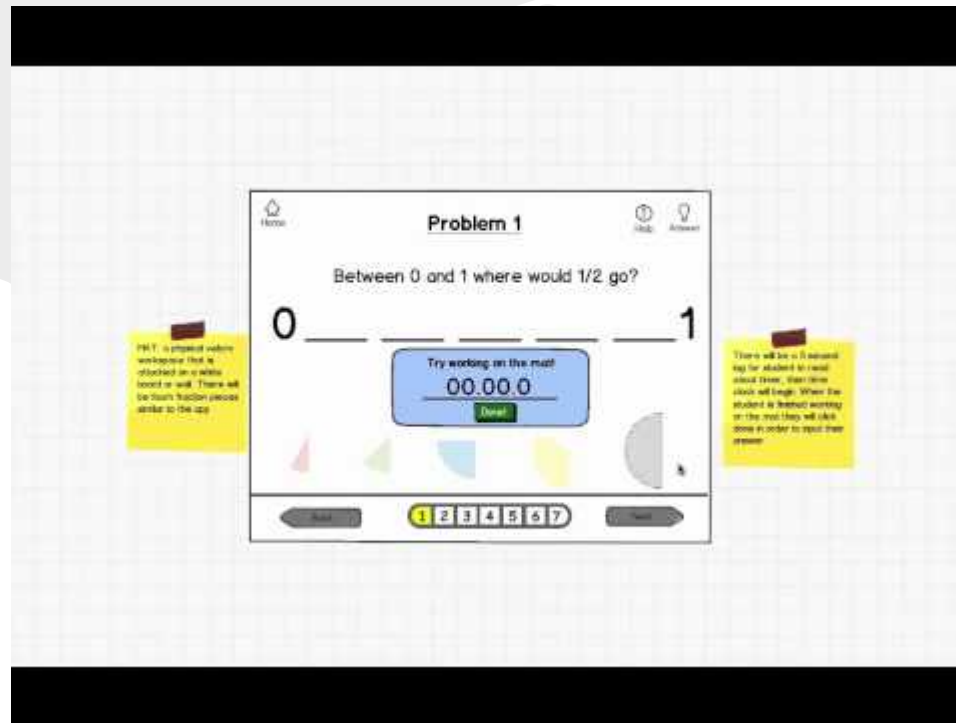
- *Liked Progress Bar*
- **Needs animation for hints to make it obvious**
- **Make the fraction pieces look like foam pieces**
- **Red "Back" button gives a negative connotation**
- Needs reward system

# Low Fidelity Designs

Wireframe - Lesson 1

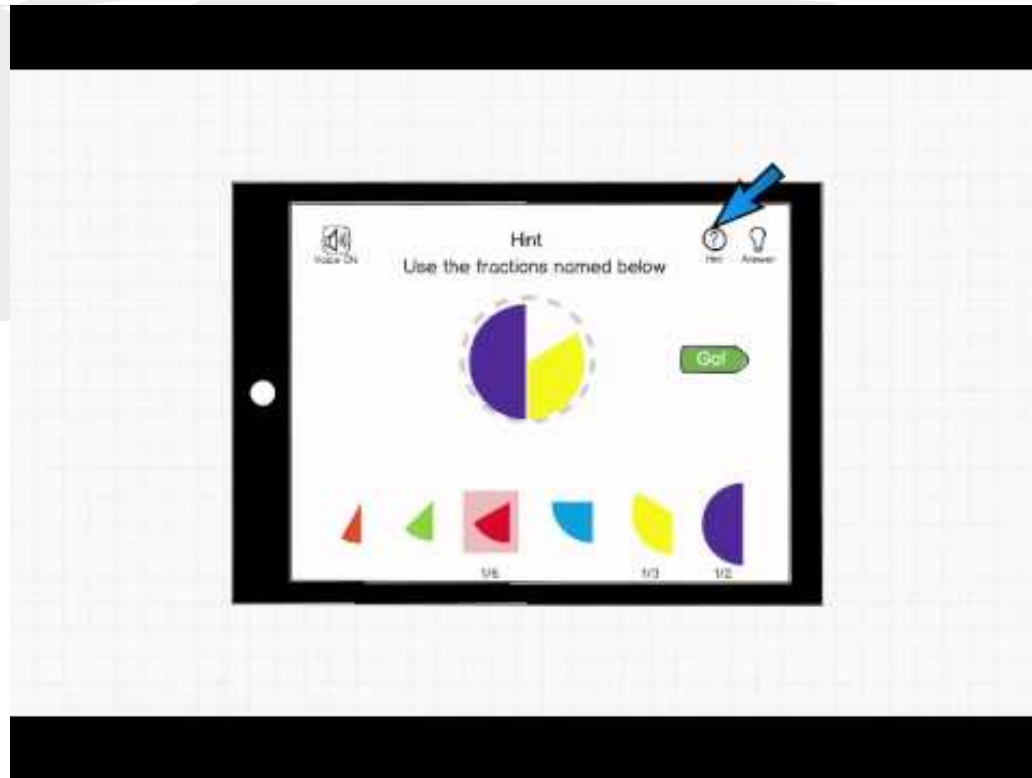
# Low Fidelity Designs

## Balsamiq ~ Lesson 1



# Low Fidelity Designs

Balsamiq ~ Lesson 2





# Prototype

Flash prototype ~ Lesson 1

# Prototype

Flash prototype ~ Lesson 2

# Initial Testing

## Set-up

- Mat posted on the wall, tablet PC and Macbook on the Table

## Procedure

- Initial Questionnaire
- Instructions to User
- Application Use
- Post-Testing Interview



# Initial Testing

## Post-Testing Interview Results

### User 1:

The user was confused during the first problem going back and forth between the mat and application. But after that had no problem going back and forth. She felt that the continue button slowed down the process of the lesson. It was easy for her to work with the mat even though she had never encountered one before.

### User 2:

Had a hard time working out the problems. The problem that gave her the most trouble was lesson two. However she felt that the application was easy since it looked exactly the same as the mat.

# Initial Testing

## Post-Testing Interview Results

User 3:

She liked that she could work the problem out on the mat first before inputting her answer on the app. It allowed her to think about the problem first. She was also not sure what to do with the mat at first but got use to it after a while. Working between the mat and app allowed her to see where the pieces go.

User 4:

By working on the mat he was able to compare the fractions and figure out what size each fractions were by placing one fraction on top of another fraction. Had no idea what the mat was used for at first. He felt that the lessons were easy especially with the mat.

# Pros and Cons

## Pros:

- Felt it was easy working between the mat and application
- Able to work out the problem first and think about it before inputting their answers.
- The mat and the app lessons look the same

## Cons:

- Felt that clicking the next button slows down the process
- Want to be able to rotate the shape into place
- Confused when users dragged the shape into the circle. They did not know that the shapes automatically rotate and snap into place.
- No labels to show size of the fractions.
- Many users had no idea what the mat was used for at first

# Future Implementation

- Rotate shapes into place
- Have numbers under the fraction size
- Put a timer so the users can time themselves
- Provide hints
- Develop on iOS platform

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Questions?