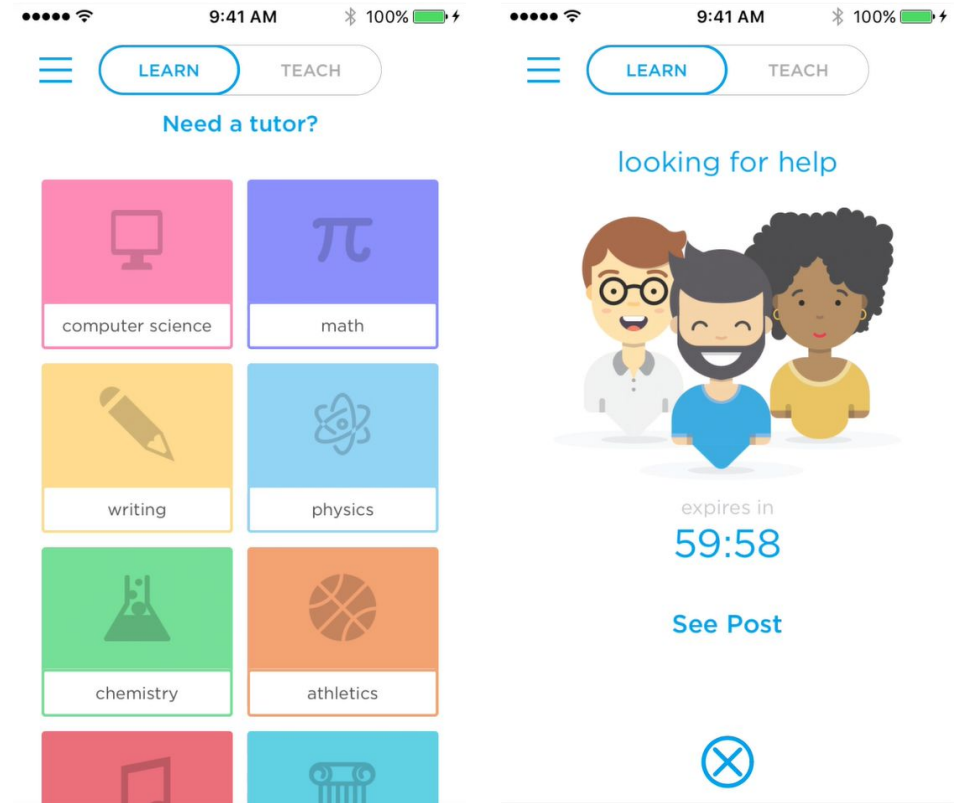


SkillSwap Field Usability Study

Brad R, Clay J, Crystal T, Dana M

Our System: SkillSwap

Swap skills with other people and get critical, quick, real-time, face-to-face feedback while learning



Purpose of Our Experiment

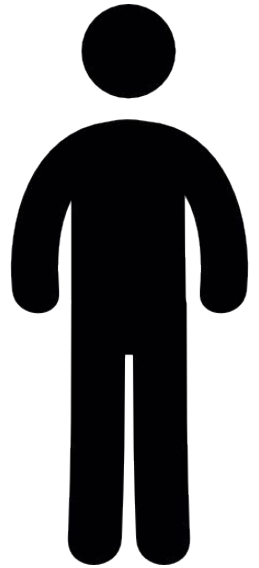
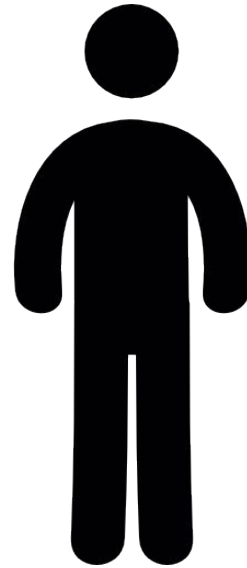
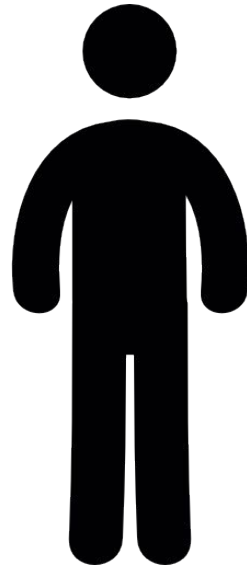
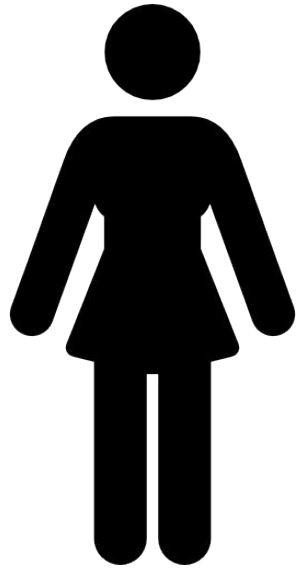
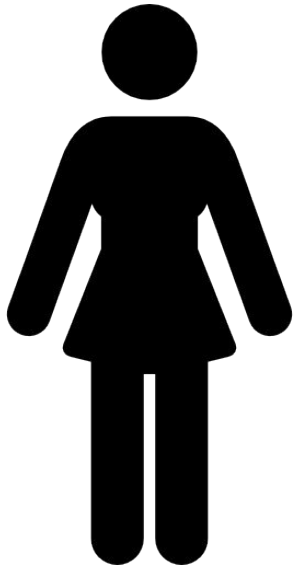
- See our new idea of swapping skills in action
- Evaluate effectiveness of meeting in public spaces
- Get feedback on shift in our UI
- Test new flow of our app
- See opinions of our Time Bank
- Observe the flow of switching between the app and the real-world meeting

Outline

- Method
- Test Measures
- Results
- Discussion and Implications
- Summary

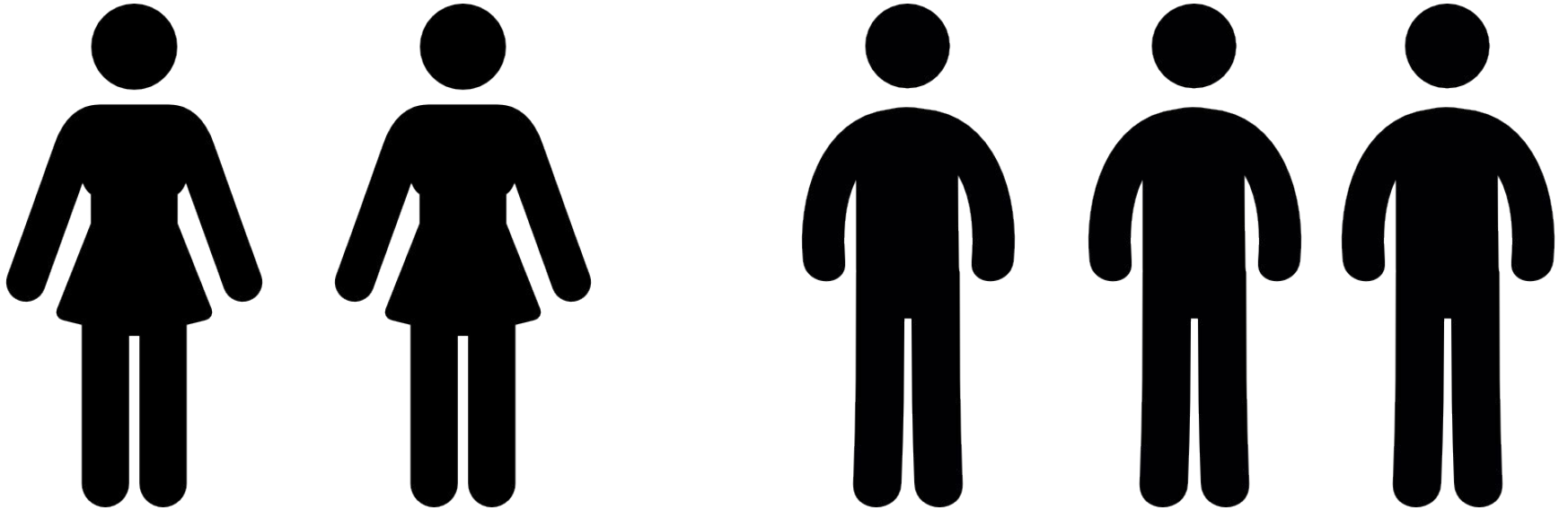
Participants

5 Stanford students between the ages of 19-22



Participants

Recruiting: Old Union, second floor and Axe and Palm
Compensation: a moderately priced snack at Axe and Palm



Participants

% of the participants had formal teaching experience



Apparatus

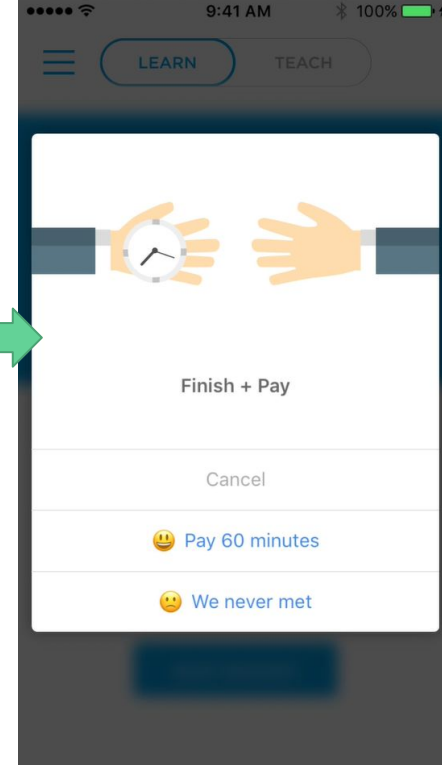
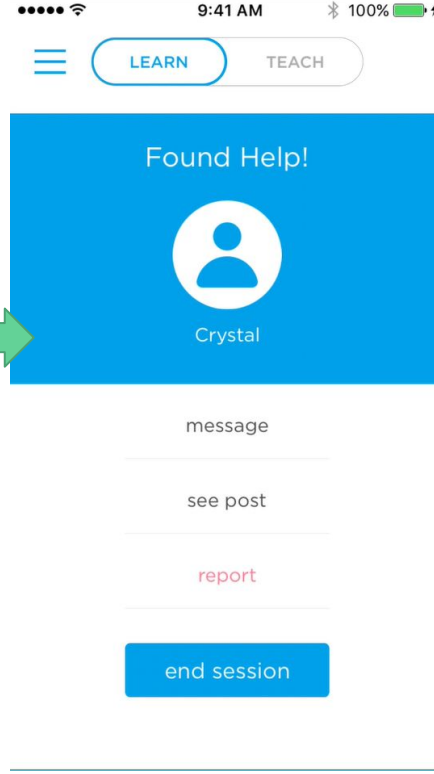
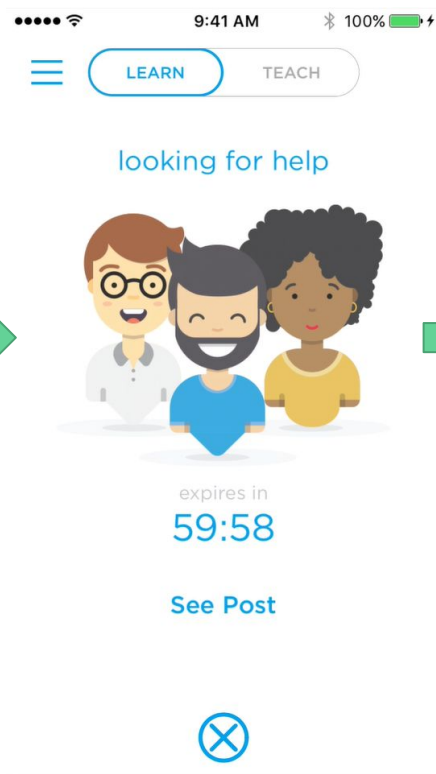
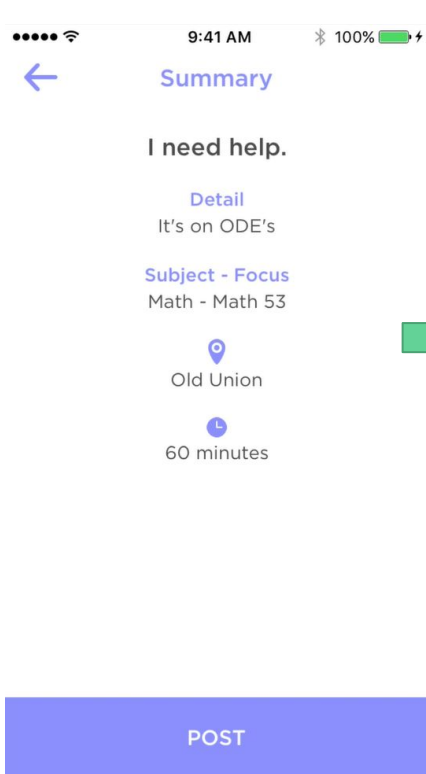
- Location: Public Space in Old Union
- 3 iPhones for Real-Time Interactions
- Two confederates
- Recording: Lookback, AZ Screen Recorder



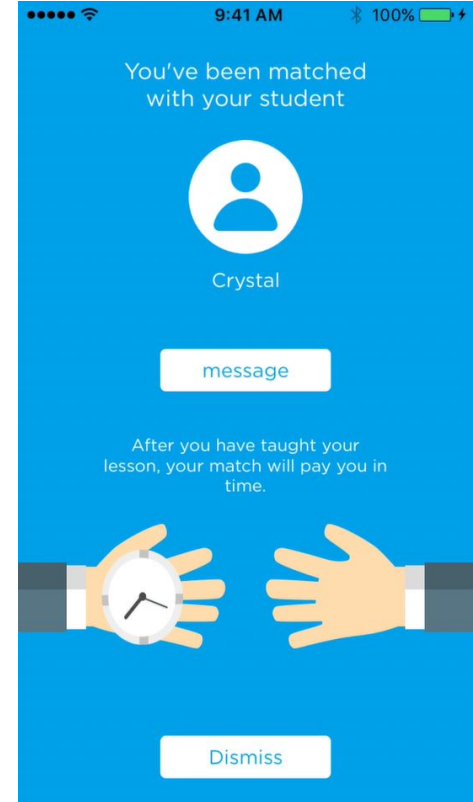
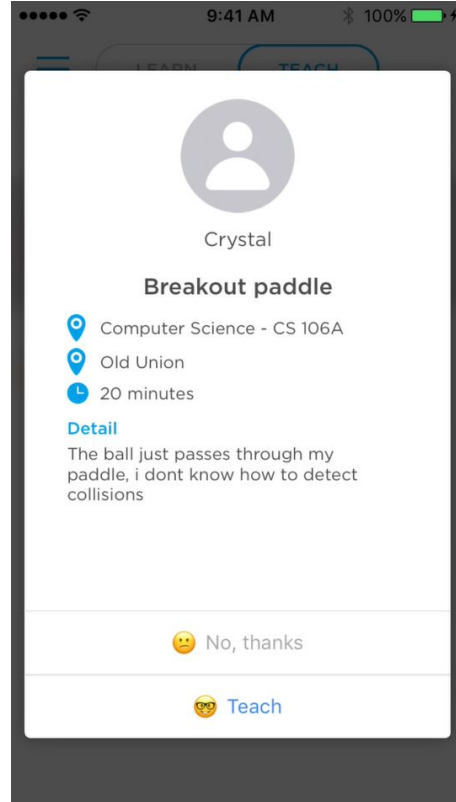
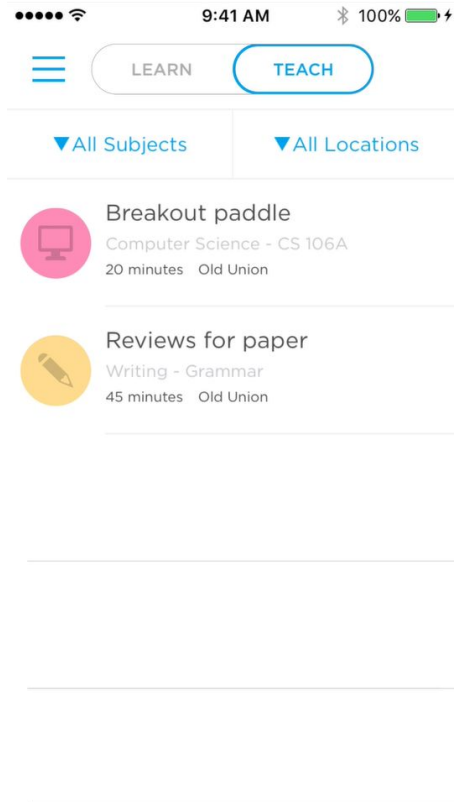
Task 1: Find a skill you want help with and send a request

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*all screens for this task at end of presentation



Task 2: Match with Someone and Teach a Skill



Task 3: Make Sure You Get Paid

The image shows a sequence of four mobile app screenshots illustrating a user's journey to find a tutor and contact them.

- Screen 1:** The app's main menu. At the top, there are buttons for "LEARN" and "TEACH". Below them is the text "Need a tutor?". A red arrow points to a hamburger menu icon on the left. The screen displays a grid of subject tiles: computer science, math, writing, physics, chemistry, and athletics.
- Screen 2:** A screen showing a list of options: Home, Meetups, and Logout. A black redaction box covers the top part of the screen. A green arrow points from the "Meetups" option to the next screen.
- Screen 3:** The "Meetups" page. It shows a profile for "Crystal" with the text "Help with PWR essay - 25 min" and a "message" button. Below this is a "History" section. A green arrow points from the "message" button to the next screen.
- Screen 4:** An iMessage conversation. The header says "New iMessage" with a "Cancel" button. The recipient is "1 (310) 490-1291". A blue bubble contains the text: "Hello, Crystal It's your tutor from SkillSwap. Where can I meet you?". A grey bubble below it says "Oh I think I see you". The input field contains the text "Where my money" and a send button. A keyboard is visible at the bottom.

Procedure

1. Prepare data and confederates
2. Get consent form signed
3. Give context
4. Show how device works if they were unfamiliar with it
 - a. Only 1 participant did not own an iPhone
5. Follow the **script** - tell them task
6. Ask follow-up questions

Test Measures

- Quantitative

- Time spent on each task
- Number of mis-taps
- Number of backtracks
- Critical Instances

- Qualitative

- Content of Critical Instances
- Follow-up Questions
 - Feedback on UI/UX
 - Feedback on experience of meeting with a tutor/tutee

Quantitative Results

	Time spent (avg)	Mis-taps	Backtracks	Critical Instances	
Task 1	~2:41	8	5	+4	-4
Task 2	~0:33	1	2	+2	-1
Task 3	~0:40	2	1	+3	-2

Notable Quotes: Concept

- “I want more classes to choose”
- “I might hop on the bandwagon if there were a lot of users”
- “I’m glad that it isn’t real money”
- “I’m pretty anti-social. I already have my pset buddies”
- “It seems hard to reach the expected minutes”
- “An hour of debugging does not equal an hour of teaching”
- “Time doesn’t mean that much”
- “It’d be useful to know the qualifications of the tutor”

Notable Quote: User Interface

- “20 characters isn’t enough for a summary”
- “I feel like more accurate increments are appropriate”
- “Is there a way to report people?”
- “Change the unfilled areas in the login page to be brighter”
- “I was expecting a user information page”
- “It was a little awkward. I’d prefer something more automatic” - about Task 3

Changes for a Larger Study

- No confederates
- Use actual assignments/topics
- Larger time frame (see what happens to time economy)
 - Measure this data quantitatively
- Test effectiveness of push notifications
- Use all locations listed

Changes: UI

- Make a report flow
- Tweak login page
- Create a user/profile page
- Facilitate flow for learning
- Incorporate messaging system in-app
 - might not get to this one



Changes: High Level

- Add Karma System
- Incentives for superusers
- Add interesting or more comprehensive topics
- Do checking for users
 - Add push notifications to remind users about app



Pros and Cons of Field Study

Pros

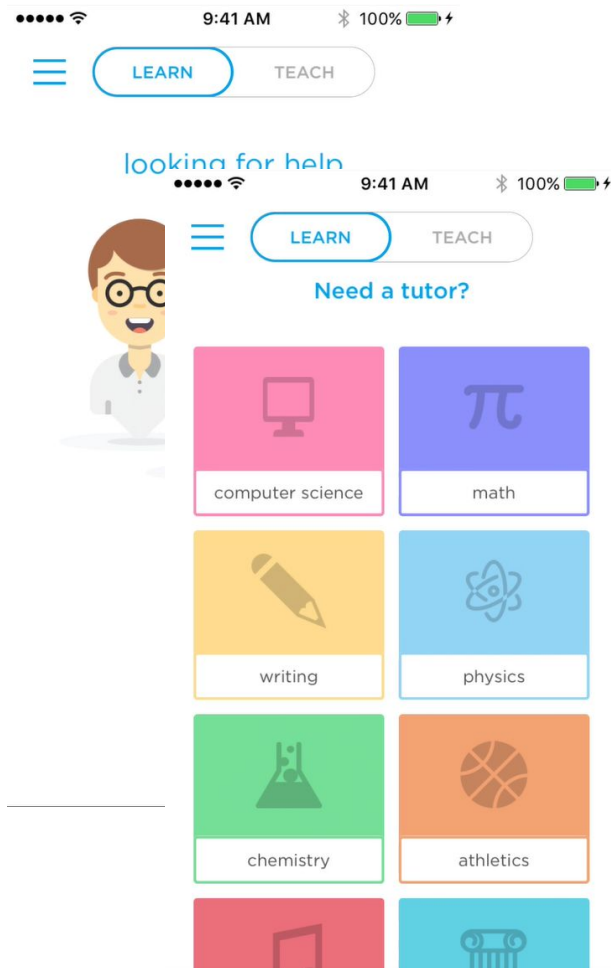
- See interaction between real-life and app
- See how users interact with other people using our app
- More accurate quantitative data

Cons

- Harder to get participants
- Difficult to run without confederates
- Testing range of skills without easy access to experts in all fields

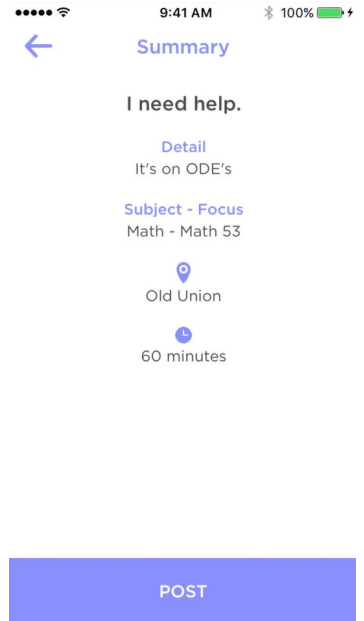
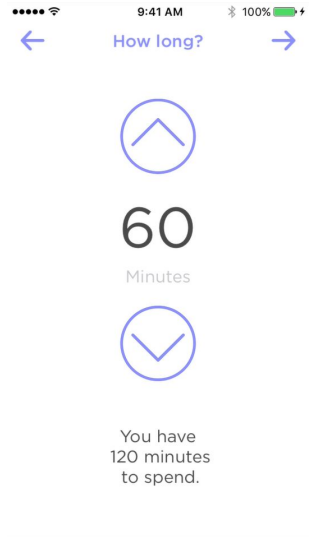
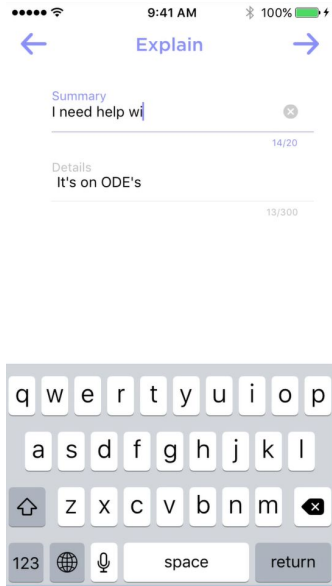
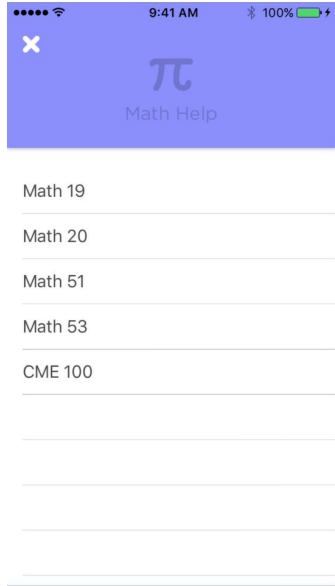
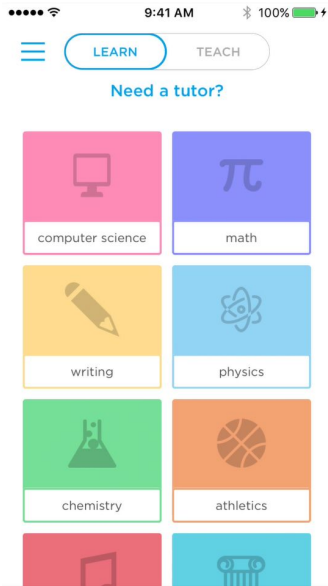
Summary

- Performed a field study on our prototype
 - Used confederate, went to Old Union
 - Users did all 3 tasks
- Measured mis-taps, backtracks, critical instances, time spent, and collected general comments
- Results
 - Quantitative: improve learning flow, create reporting system
 - Qualitative: add more incentives to teach, make users feel comfortable with their tutor
- Overall, field study was incredibly helpful in taking the next steps to improve SkillSwap



Thank you!

Task 1 Full Flow



Task 1 Full Flow -- continued

