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Catherine B, Cindy L, Karen L, and Amy X

### **Problem domain**

Wellness in parents with small children

### **Initial POV**

We met Jiazhi and Eugenia.

We were amazed to realize that blogs and books about parenting advice make parents feel guilt.

It would be game-changing to:

- a. provide a repository of screw-ups so parents know they can mess up too and know how to recover.
- b. provide a community space for children of similar ages to spend time together.

### **Additional needfinding results**

1. Family counselor (interviewed by Karen)
  - a. Stanley, Marriage and Family Counselor  
Stanley, previously an engineer, recently went back to school to become a counselor. He has three sons in the high school and college age range.
  - b. The interview was over FaceTime and lasted around 40 minutes.
  - c. What we learned:  
One major lesson that Stanley learned while training to be a counselor is that emotion is an important part of our health. He believes that one thing parents don't do enough is pay attention to their kids' emotional needs and connect with them on an emotional level. One of the most emotionally challenging parts of parenting is when kids start to push you away and no longer welcome your advice. Parenting also affects one's marriage deeply, but communication is the key. There are existing counseling curricula to help parents prepare to have kids by working on communication and maintaining an emotional connection.

Significant quotes:

- i. "Parenting is really on-the-job training."
- ii. "When becoming a parent, your 2D relationship [as a couple] becomes a 3D relationship."
- iii. "Couples' relationships start breaking down because their emotions gradually detach."

This interview was valuable because Stanley has experience not only as a parent but also as someone who focuses on the mental and emotional health of kids and parents.

2. Pregnancy yoga professional (interviewed by Amy)



a.

Jeanna, Program Manager and Yoga Instructor at Blossom Birth  
3 kids (ages 14, 7, and 5 yo)

b. The interview was in person, inside the main lobby of Blossom Birth.  
20 min, audio recorded

c. What we learned:

Jeanna has a very different parenting philosophy than most of our other interviews. This may stem partly from having more parenting experience and older children (though her youngest is 5, she has a 17-year-old who she tends to focus on the most while answering questions), and partly from having a different philosophy on life (a focus on letting go and being in the moment, due to spiritual principles gained from yoga practice). In addition, she found it hard to think of times where she didn't know what to do, and didn't use many outside resources in her parenting, preferring to draw on her past experience and discussions with her husband.

Significant quotes:

- i. "Especially when the little ones were littler than they are now, it often meant that they were stuck in the car a really long time because of driving the older one."
- ii. "If something terrible happens to my kid, I'm not gonna lie, it's gonna make me feel awful, but I'm not gonna feel like it's my fault. Because I don't think parenting is an outcome-based thing."

- iii. “[On advice from a co-op early on] Something she shared that was just brilliance to me was, ‘It’s not your job to make your children happy.’ ...It actually took a weight off my shoulders.”

This interview was valuable for diversity of perspective, both in demographics and beliefs.

3. College student (interviewed by Cindy)

- a. Ingerid has 6 siblings (8, 11, 14, 18, 22 yo) and works at Peninsula Bible Church Nursery (2-3 yo).
- b. The interview was casual and in person, as Ingerid is a good friend of mine. I conducted the interview over breakfast at EAST house.
- c. What we learned:

Ingerid mostly commented on the positives of her mom’s child-raising strategies, including the way she told everyone they were her favorite, how she slowly trained her children to sleep without being explicitly told to, and how she utilized resources like “Math at the Kitchen Table” to intellectually engage her children in a creative way.

On the flip side, Ingerid also was able to observe multiple parents interacting with their 2-3-year-olds at the nursery, and says that most children are always ecstatic to see their parents. She also spoke about how really listening to children when you interact is the best way to engage them.

Significant quotes:

- i. “By the time my mom got to her third child, she said she knew that no matter what you do, they’ll turn out okay.”
- ii. “When you talk to children, one of the best things you could do is to get them to think.”
- iii. “You quickly learn that when you’re reading out loud to a child, you don’t really have to read the words in the book because they’re probably going to flip the page before you finish. You learn to just make it up.”

Overall, this interview was the perfect opportunity to discover how someone who closely interacted with, but did not actually have, young children viewed the parenting situation.

### Three Revised POVs

- 1. We met Jeanna, Steven, Jiazhi, and Eugenia.

We were amazed to realize how much information about parenting and inevitable opportunity costs made parents feel guilt.

It would be game changing to help parents accept and embrace imperfection.

- a. HMW help parents share their mistakes in parenting with one another?
- b. HMW reduce information overload in parenting resources?

- c. HMW help parents realize that there are many acceptable parenting styles?
  - d. HMW provide judgment-free ways for parents to ask for help?
  - e. HMW help parents find friends who have gone through specific problems they need advice for?
2. We met Mac and Eugenia.
- We were amazed to realize that they have only spent three evenings together away from their baby since the baby was born.
- It would be game-changing to provide the help that parents need in order to spend time with each other outside the context of parenting.
- a. HMW give parents ideas for meaningful dates that don't require too much time/travel/energy?
  - b. HMW remind parents to value their time with each other (without their children) more?
  - c. HMW help parents find trustworthy childcare?
  - d. HMW make parents feel secure enough to leave their kids?
  - e. HMW make children enjoy spending time away from their parents, but not in a detrimental way?
3. We met Ingerid, Mac and Eugenia, Rachel, Jeanna, and Steven.
- We were amazed by how much having access or not having access to a community of other parents with similar-aged children and similar values and needs made a difference in a parent's positive sense of self.
- It would be game-changing to bring together parents who have similar immediate objectives and connect them in person.
- a. HMW foster both an online and real-life community?
  - b. HMW help parents find other parents with similar values and childraising goals?
  - c. HMW make parents feel safe about connecting with families they don't know?
  - d. HMW sustain connections after initial contact?
  - e. HMW organize parents' connections by categories like age of children, etc.?

### **Three Best HMWs**

1. HMW help parents share their mistakes in parenting with one another?  
(first POV)
2. HMW remind parents to value their time with each other (without their children) more?  
(second POV)
3. HMW foster both an online and real-life community that help parents find other parents with similar values and childraising goals?  
(third POV)

### **Three Experience Prototypes**

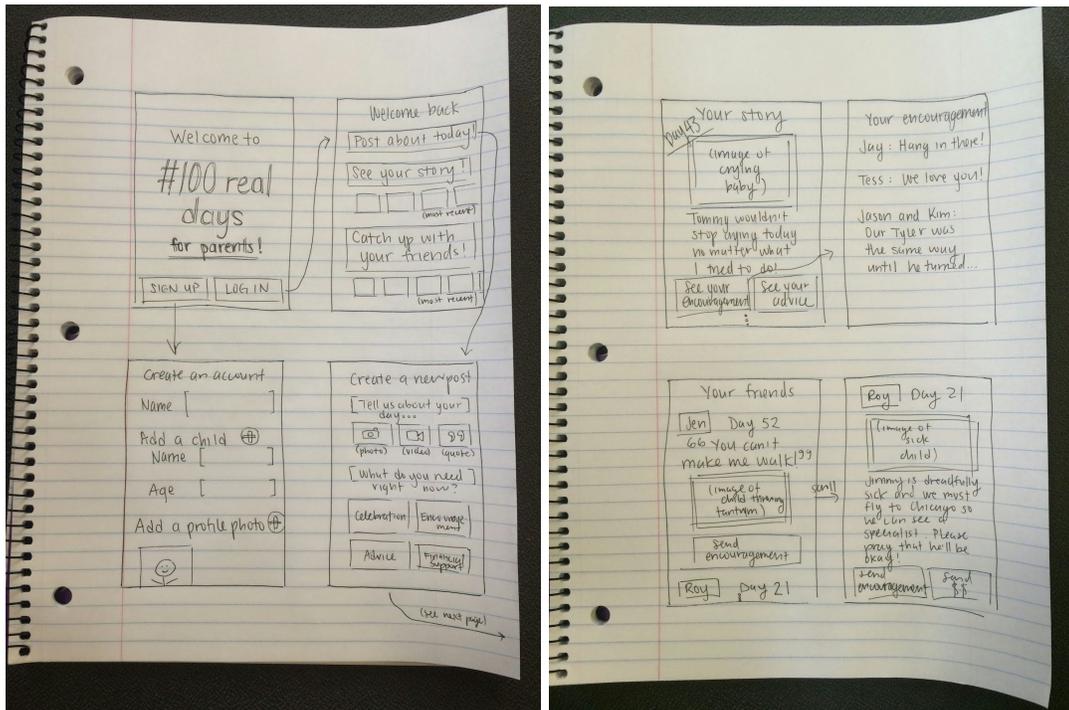
**Solution 1** (Social media platform for parents to share honestly about their parenting experiences)

1. *Assumptions:* Parents want to feel that they aren't the only people who find parenting challenging. They want a place to vent frustration and share their struggles, free from judgment or guilt. They would be encouraged by a community of friends who are also parents.

2. *How we made:*

Our idea was inspired by the hashtag #100happydays, which appeared on Instagram a while back. People posted reasons they were happy 100 days in a row. While this was meant to be an encouraging activity, it often felt forced and did not encourage emotional honesty. We wanted to create an app prototype so parents could post about their lives without being pressured to post the cleaned-up version of their lives.

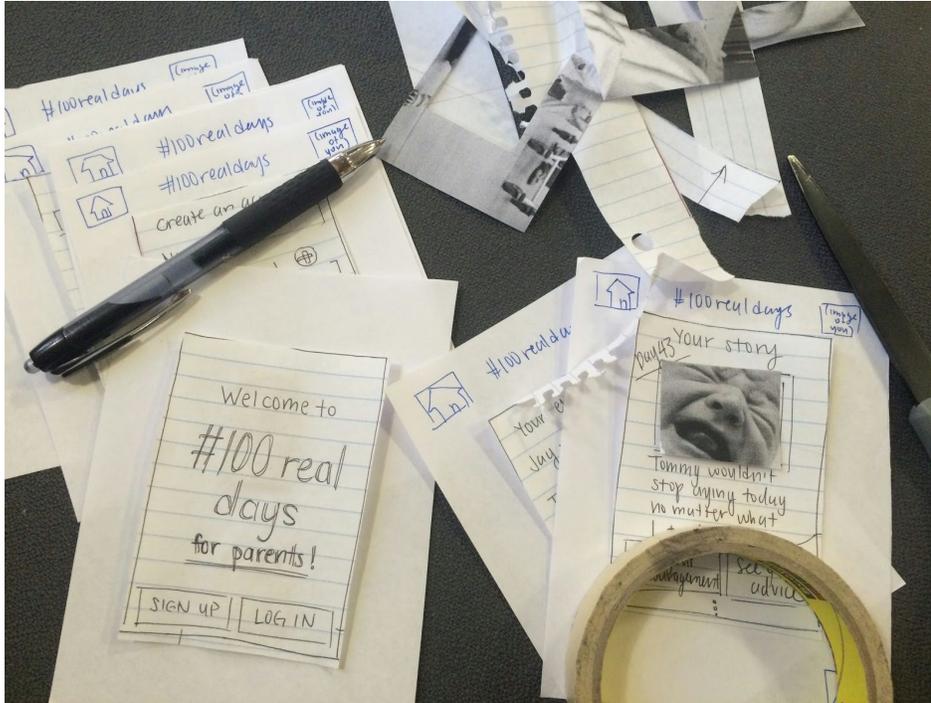
We started out by brainstorming ideas (e.g. allow posting photo/video, categorize posts by emotion, allow friends to offer encouragement). We then drew out some example screenshots on paper, as shown below.



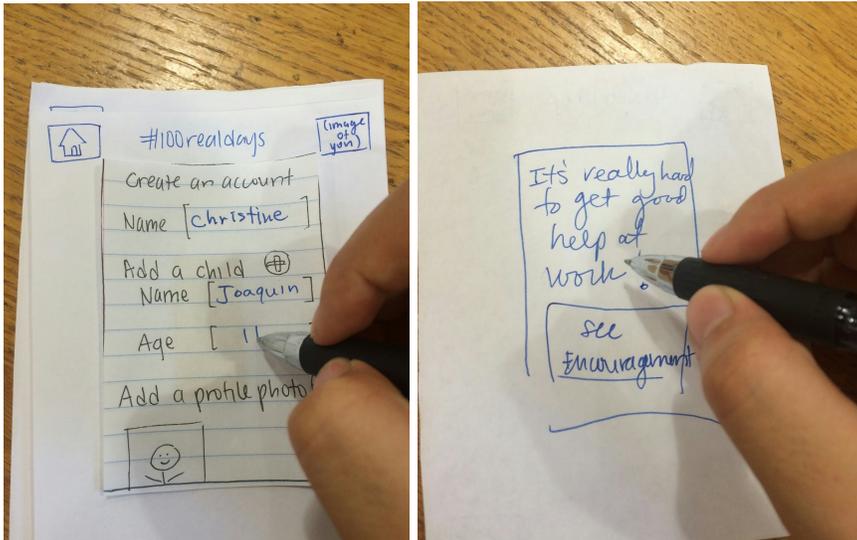
Lastly, we cut and mounted the paper "screenshots" to use in user testing.

3. *How we tested:*

We tested this prototype on Christine, who works at Stanford and has two children, in her home. We presented her with the first paper screenshot and introduce



...d new pages depending on her actions. She was also able to write down some of her own posts on paper.



#### 4. Results

What worked: The general flow between pages, creating an account, writing a post.

What didn't work: Knowing how many buttons to press on each page, figuring out what was optional and what was required to proceed.

What we learned: We learned users want to learn more about the app before signing up. Parents often don't want to use real names or photos of kids online, so we should make all of the personal information optional. Parents may have other struggles (besides their kids) to post about. Also, even though our idea came from the idea of #100happydays,

posting 100 days in a row is in itself very stressful, so it would make more sense for the days to be non-consecutive, if numbered at all.

5. *Assumption analysis:*

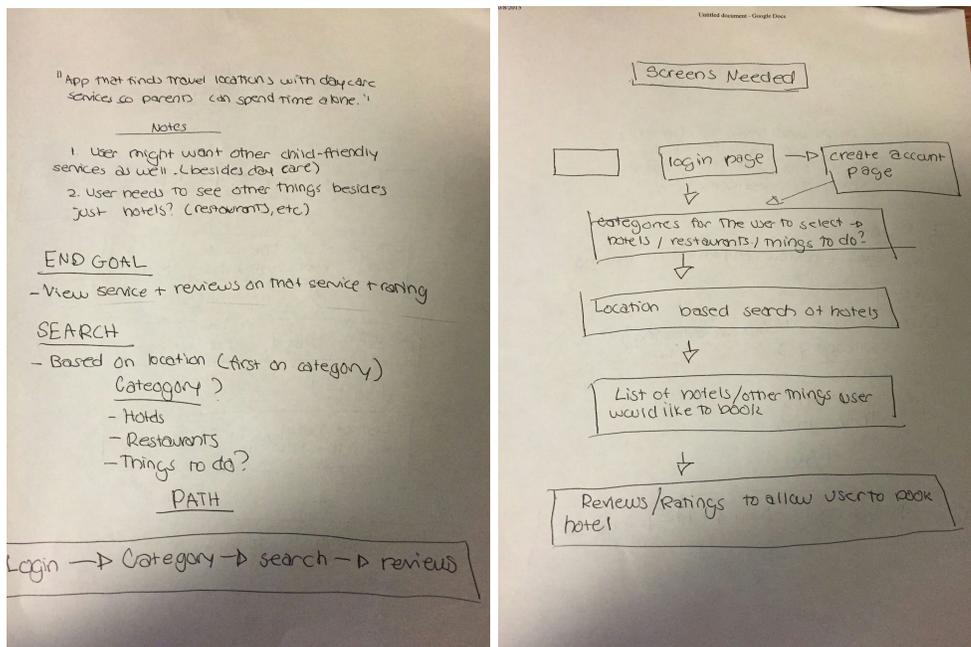
The assumption that parents wanted to avoid guilt in parenting was valid; however, we discovered that parents also feel guilty “complaining” about their kids. Thus, this platform may not help them.

**Solution 2** (Platform that finds travel locations with daycare services so that parents can spend time alone on vacation)

1. *Assumptions:* Parents would like to search for hotels/restaurants/things to do by location, and after that, they would like a list of options in that location, sorted by popularity. After that, all they needed to complete their decision would be reviews of the different places.

2. *How we made:*

The prototype was made on paper. The first step was brainstorming what the user would need in order to reach the end goal: an acceptable travel location to take their child. We determined that it was in the best way for the user to achieve this goal would be to compare reviews and ratings of each location that the user was considering. After that, it was about working backwards to figure out how the user would get there. After diagramming it, the prototype was transferred to paper.

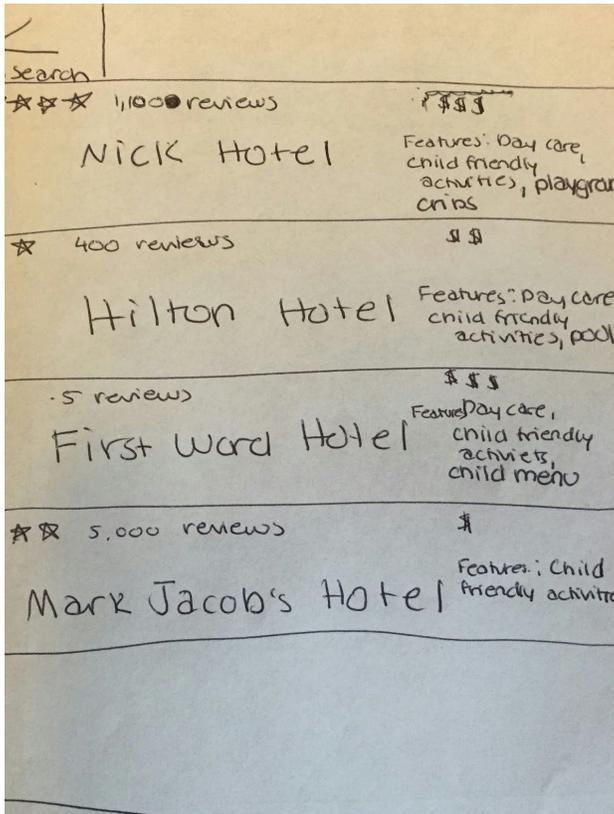


1. *How we tested:*

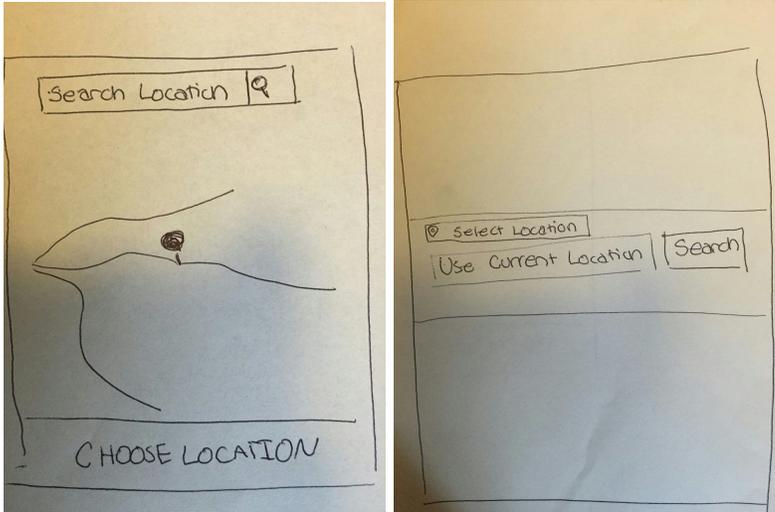
Due to time constraints, we had a student test out this app instead of a parent. We choose to test in a comfortable location, the user's home (their dorm room), because real parents would most likely plan their trips at home.

The user went through creating an account with an app, acting out what she would do in each scenario, typing in her username and password. She then decided to search for a hotel, and act as though her location popped up on the map. She then looked her different options, and made a decision based on the list of hotel reviews.

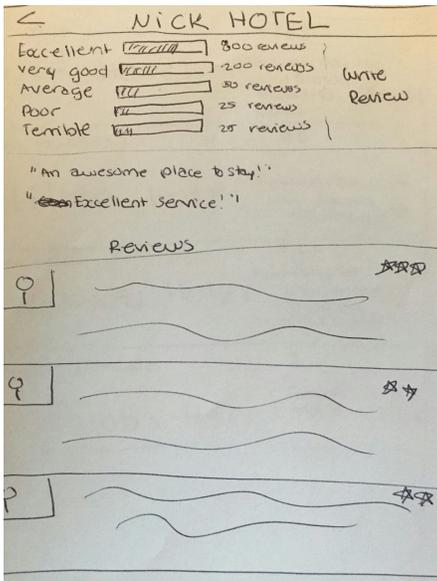
During the interview, the main indicator she used when selecting hotels was the number of stars the hotel had followed by the number of reviews. She appreciated that these were the main focus on the list of hotel results. She also looked through the different features of the hotels, (daycare, child friendly activities, pool), but she was surprised to find that an additional filtering option by feature was not present.



She found it confusing that the select location on a map feature was on a different page than the search page.



She also was searching for an additional option to book a hotel once she decided on one, and was confused that there was not one on the page.



She also tried to find options to view images of the hotel, but they were not present in the app.

## 2. Results:

Fundamentally, we learned that there were many features that we didn't consider the parent would need when booking a hotel, like images, filtering options, and being able to visit the hotel's website.

## 3. Assumption validity:

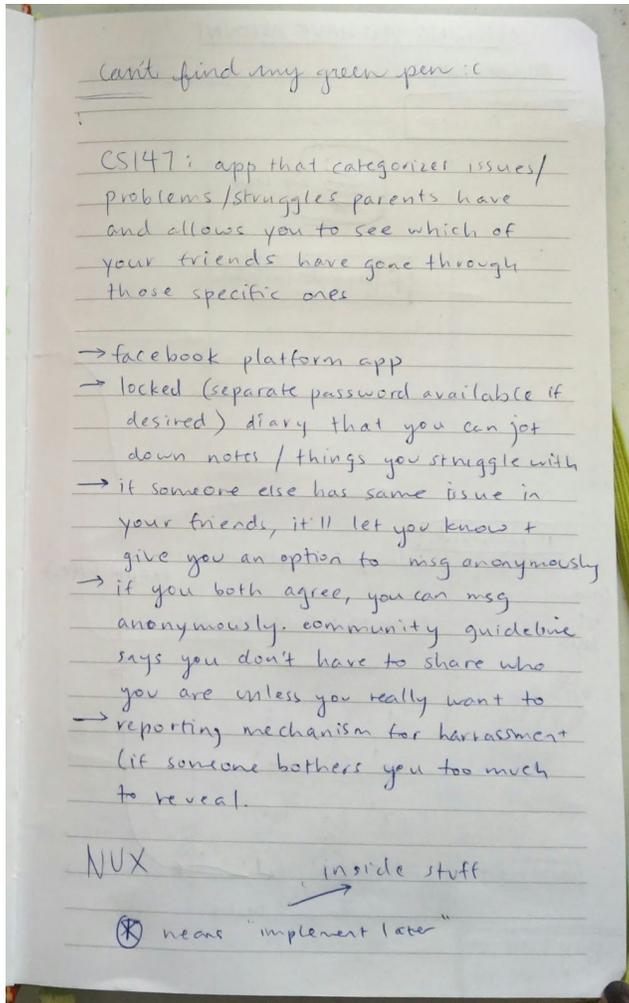
However, she agreed that it felt natural to search for hotels/restaurants/things to do by

location, so this assumption was valid.

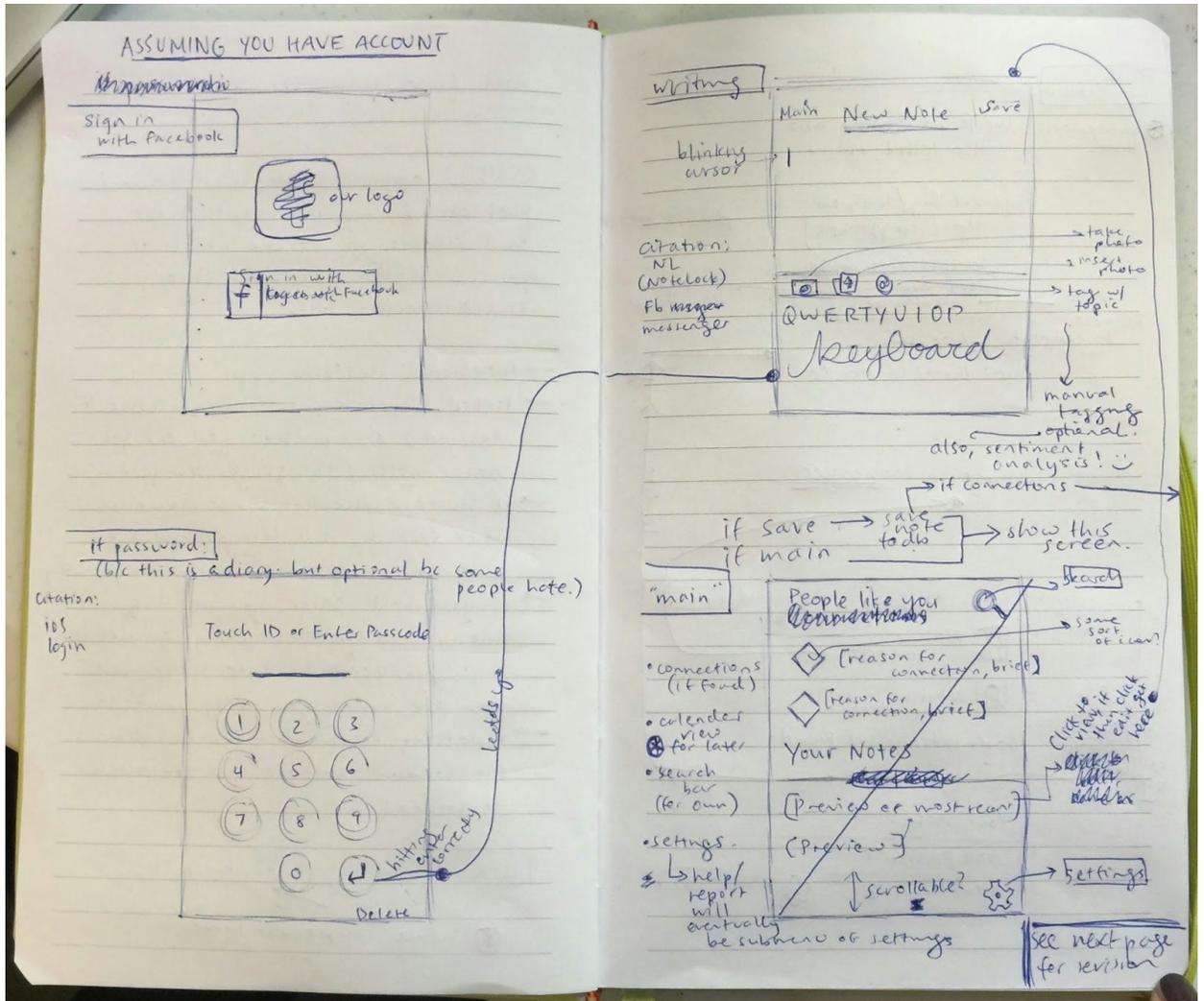
Solution 3 (App that categorizes issues/problems/struggles parents have and allows you to connect with your friends have gone through those specific ones)

1. *Assumptions:* For this design, we assumed that parents would be willing to log into our app with Facebook if we guaranteed that it was private to everyone and gave them the opportunity to further lock their information with a lock screen. Also, we assumed that parents might be comfortable discussing some problems with their friends but not others. For this particular prototype, we assumed that the user already had an account (given more time, we would have prototyped a NUX, but we decided that at this point in the process it was most important to explore our core app).
2. *How we made:*  
At the beginning, we were working with this description from our brainstorming session: "App that categorizes issues/problems/struggles parents have and allows you to see which of your friends have gone through those specific ones."

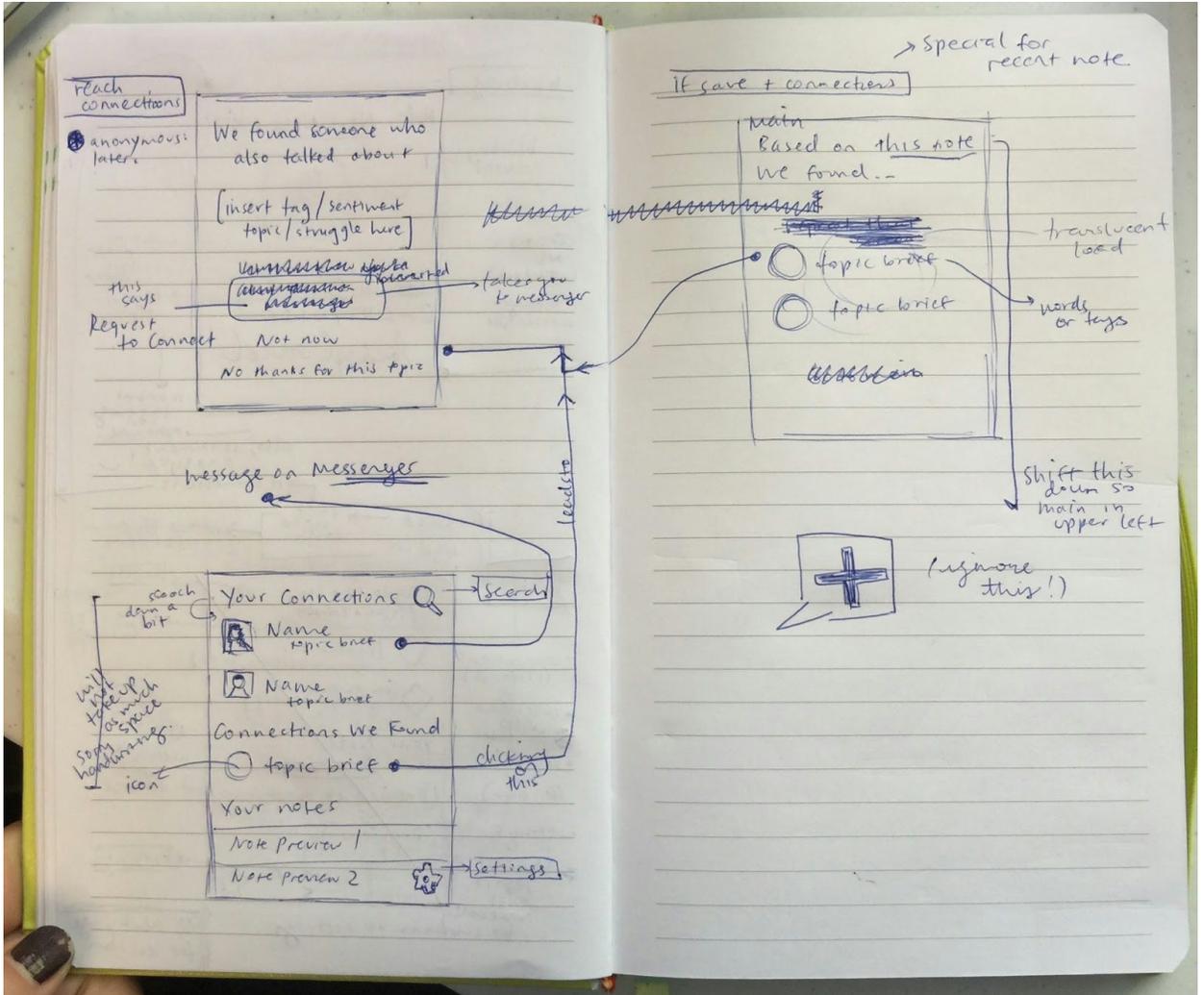
Since it was very general, our first step was to discuss and flesh out specifically what kind of mechanism our app would use. Here is our general written plan for the app:



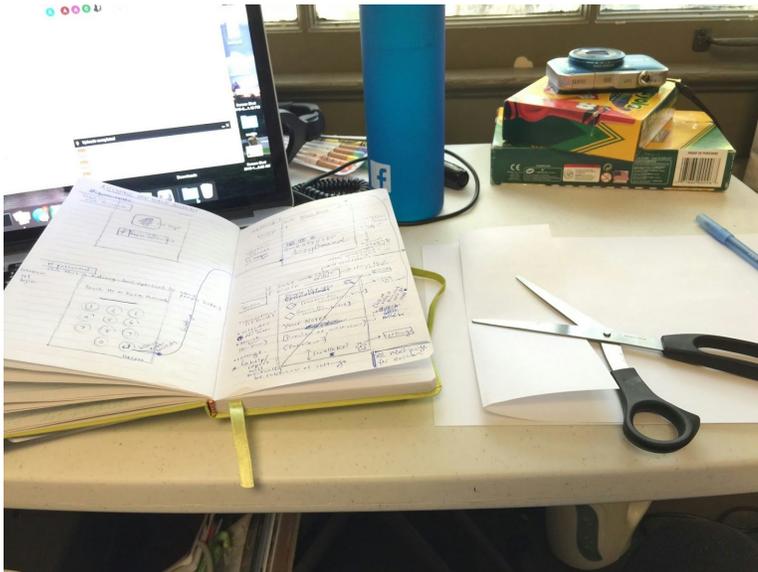
Next, we sketched out a possible wireframe on paper. Before each screen, we discussed what we wanted and didn't want on that screen. Sometimes, we had to set aside some of our initial ideas to avoid going too deeply into details or complicating the flow. In addition, we revised our Main screen after realizing that already-made connections and to-be-made connections should be treated differently. Here are our sketches:



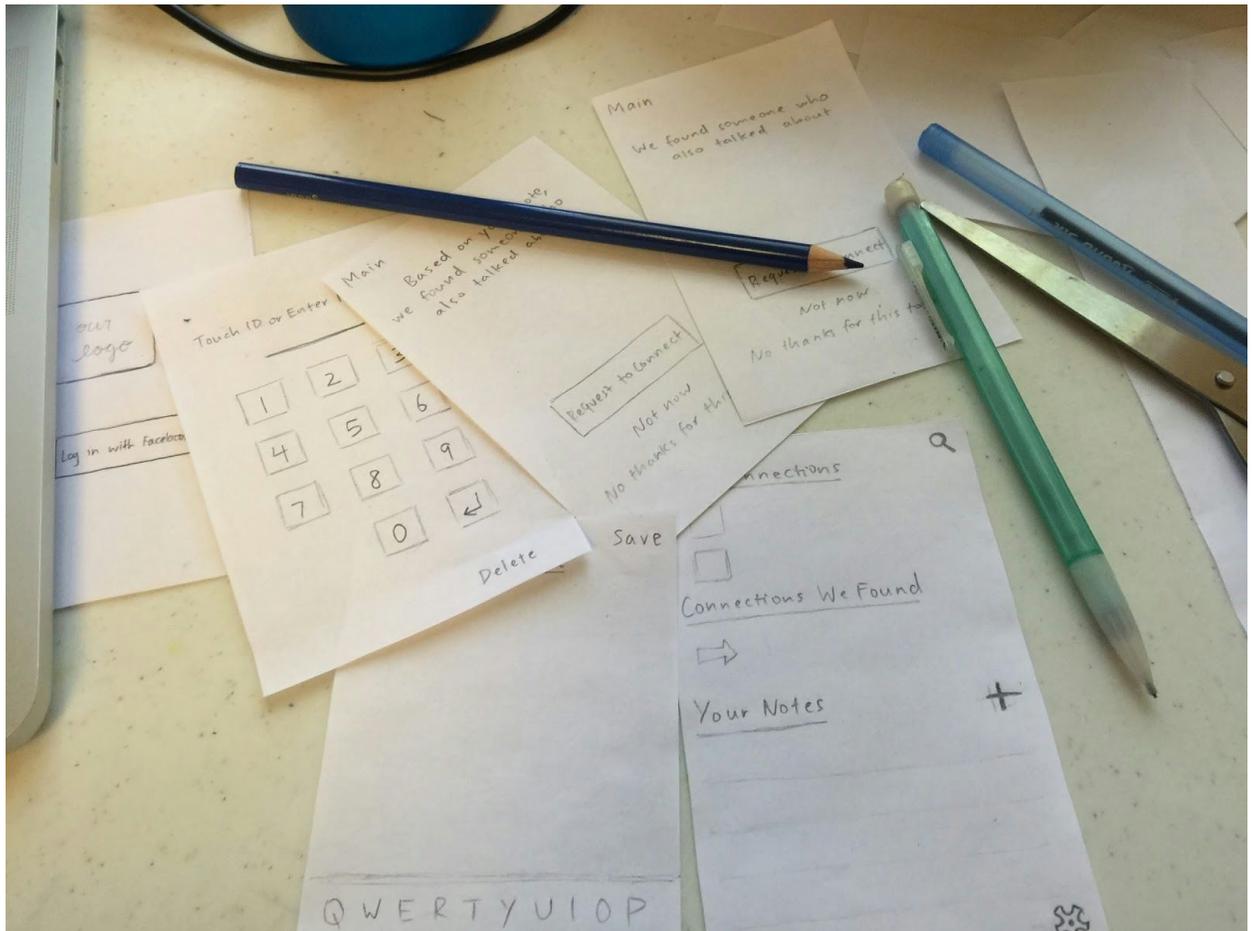
(continued below)



Next, we transferred our sketches into paper prototypes using scissors and a pencil:



We left blanks in the spaces for custom content in order to adjust our content to our test user's written responses:



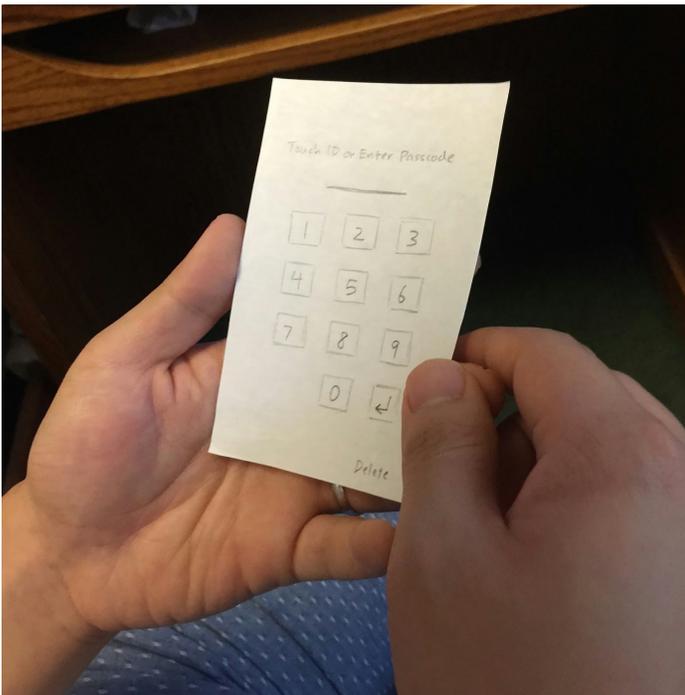
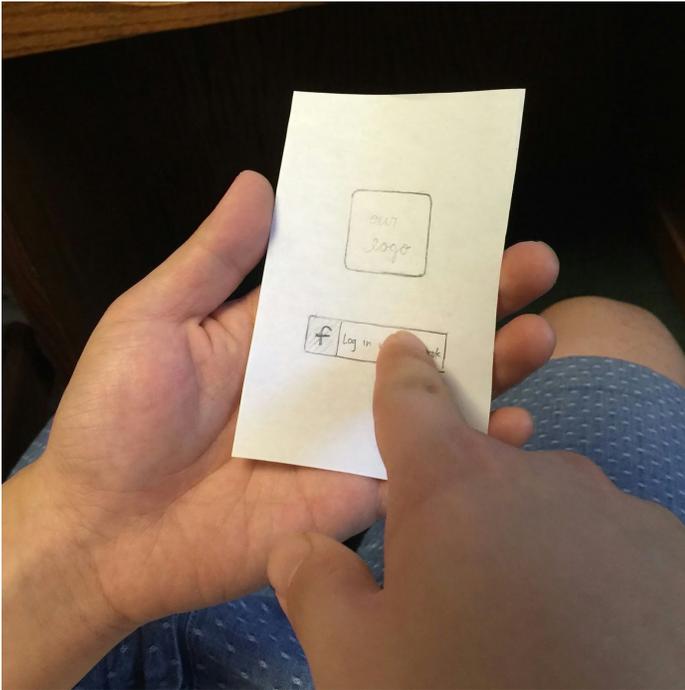
### 3. *How we tested:*

Due to time constraints, we tested our prototype on a Stanford student who had mobile design experience. Ideally, we would have asked one of our parent interviewees to test the prototype; however, since we didn't have time to go off campus this week and our on-campus interviewees were busy, we chose someone who could give us advice on app design.

We did the test in our test user's room, because our app is intended to be used at home.

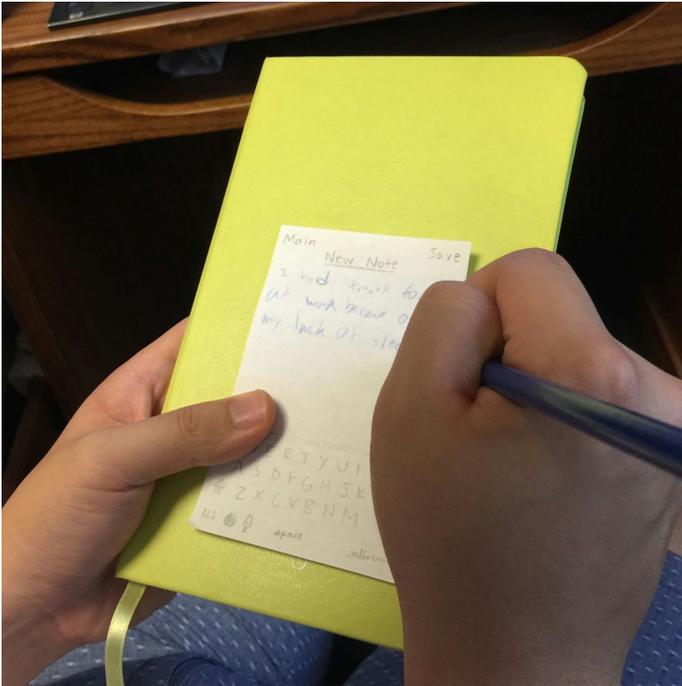
First, we introduced our test user to our project and app objective. We explained that this

prototype assumes the user already has an account on the app. Then, we sat behind him, passing him one paper screen at a time and observing his actions.

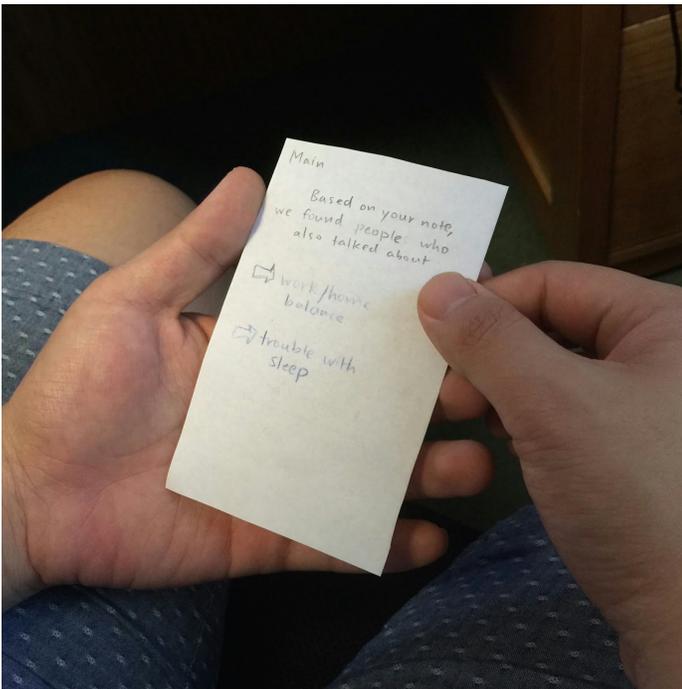


For text input screens, our test user wrote with a colored pencil (to differentiate custom

material from the base app for later analysis).



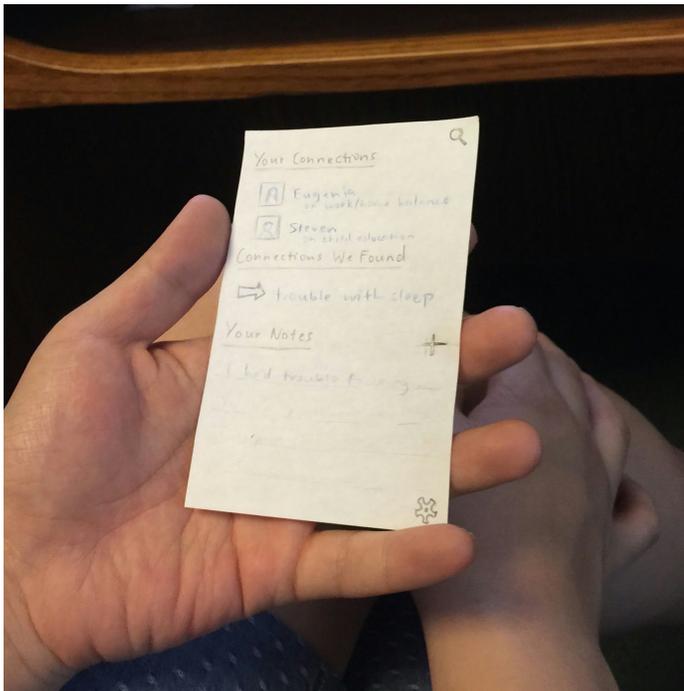
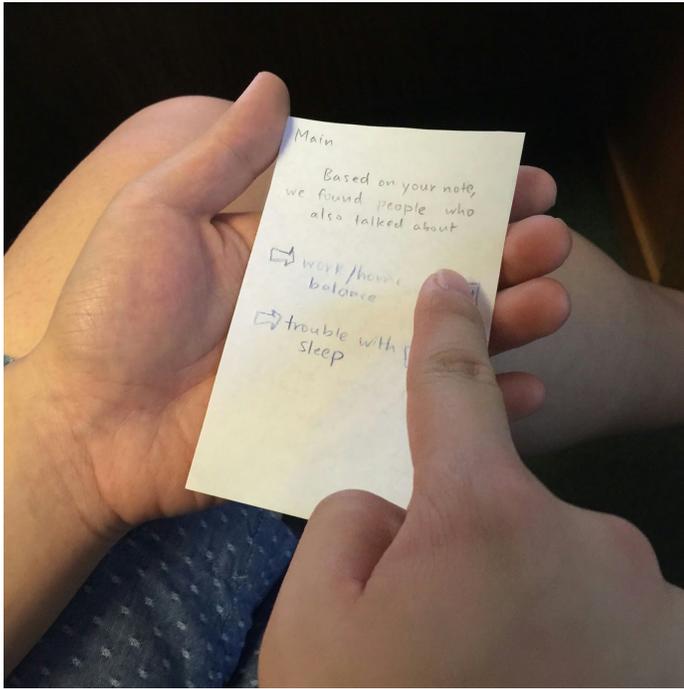
Based on our test user's input, we filled in custom content on the next screen:



At this screen, our user got stuck and asked us, "This just looks like information. Is something supposed to be clickable?"

We quickly added a Connect button to each option, because we believed in iterating quickly (and partly because we did not realize that explaining things to the test user

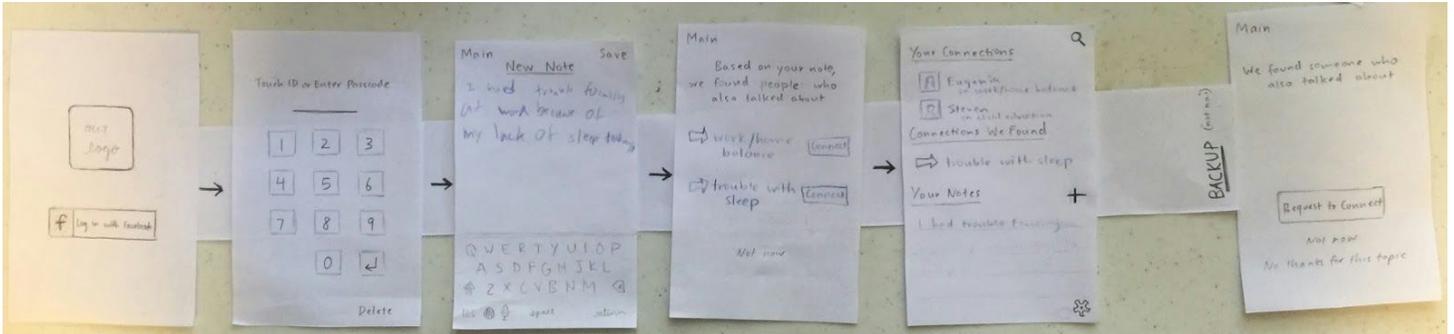
and/or changing the prototype during the test is not a good design practice. Our test user informed us of this later, so we learned how to improve not only our app but also our testing process / HCI+D chops).



After we worked our way through the app flow, we explained to the test user what we learned from watching him use our app. Then, we asked him for his thoughts on what worked and what didn't, both regarding our app and our process. Finally, we thanked

him for his time.

#### 4. Results:



This image shows the screen flow that was ultimately used for our test, based on what our user wrote and clicked on. We learned several things:

- On screen 1 and 2, our user knew exactly what to do.
  - On screen 3, our user was at first influenced by our verbal app description and wrote “I have trouble focusing...” etc. Then, when he realized it was a *New Note*, he changed it to “had.” We realized that our app was not clear at indicating what our users should write (ie. is it a diary? a note to self? a problem declaration?). This was probably because we drew a lot of inspiration from a secret diary app. To fix this, we need to iterate upon our wording and might add a gray disappear-when-typing hint message on the *New Note*.
  - On screen 4, arrows were not an effective way to say *click here*. Instead, we needed a clearer cue to the user that those elements were interactive (ie. a button).
  - After our user clicked *Connect* on screen 4, we realized that we needed a way to validate that their action had completed (ie. message at the top, separate validation screen, gray notification box in the center for a moment that disappears, etc). If we were to do further testing, we would need to experiment with different ways of confirming and responding to our user.
  - We also learned that our test user was open to try new things (ie. didn't press *Not now* or *Main* to cancel anything).
  - In retrospect, we should have asked our test user to continue after reaching the main menu to see what he would do.
5. *Was the assumption valid? Why or why not? Any new assumptions that emerged?*  
It was unclear whether our assumptions on anonymity and limited information were correct, because our test user became confused by the interaction design of the app. Additionally, our assumption to start without the NUX was proved wrong, since having a NUX would have fixed some user misunderstandings.

## **Conclusion**

Our third prototype, which helped parents find and eventually message friends who have experienced the same problems, was most successful in solving the problem of bringing together parents who have similar immediate objectives. It could also potentially connect them in person, since it targets people who are already acquaintances. The main flaws with the app were flow-related, rather than premise-related.

For our first prototype, the goal was to help parents accept and embrace imperfection, therefore relieving guilt. However, the prototype's premise of posting 100 "real days" appeared to create feelings of guilt in our test parent, which was not what we desired. We plan to incorporate the principles of its effective app flow and well thought-out NUX into our app.

The goal of the second prototype was to provide parents with the help they need to spend time with each other outside the context of parenting. Its location-based search would be very helpful for parents who are already planning a trip and want to find childcare and activities. However, it isn't as effective for parents who have not consciously thought about spending more time together without their kids. Furthermore, traveling can be stressful for parents.

In conclusion, our third prototype was most successful.