

BetterMeet

Low-fi Prototyping & Pilot Usability Testing



Team & Roles

Theodora C : user-testing
Derin D : development
Tommy F. : design
Liza G. : user-testing

Introduction

Mission Statement

At BetterMeet, our mission is to change the way people think about meetings and make meetings more purposeful.

Value Proposition

BetterMeet: Purposeful Meetings.

Problem-Solution Overview

Have you ever been in a meeting and wondered why you were there? Have you gathered people only to realize no one knows what the meeting's about? Let's face it: everyone hates meetings. BetterMeet is the solution to ineffective meetings: create an agenda, only invite people who are absolutely necessary, and ensure everyone's on the same page.

Sketches

Web Interface

This meeting will cost
24
man
hours
Are you
sure?

Title
Agenda
Invites
○ why?
○ why?

You've spent
1396
man hours in meetings this month.
Are you
sure?

Mobile Scanner

Scan in agendas
Import to group

Mobile Invites

SENT ✓
NOT RECEIVED
NOT
NOT
NOT ✓
NOT

MOBILE

MEETING
Agenda
Attendee
Follow

AGENDA
Info
Agenda
Attendee
Follow

Task-based

Organizer

- Sync sync with group

Participant

- RSVP to specific event with task bar

MOBILE

ATTENDEE

✓✓
✓✗
✗✓
✗✗

FOLLOW

✗✗
✗✗
✗✗

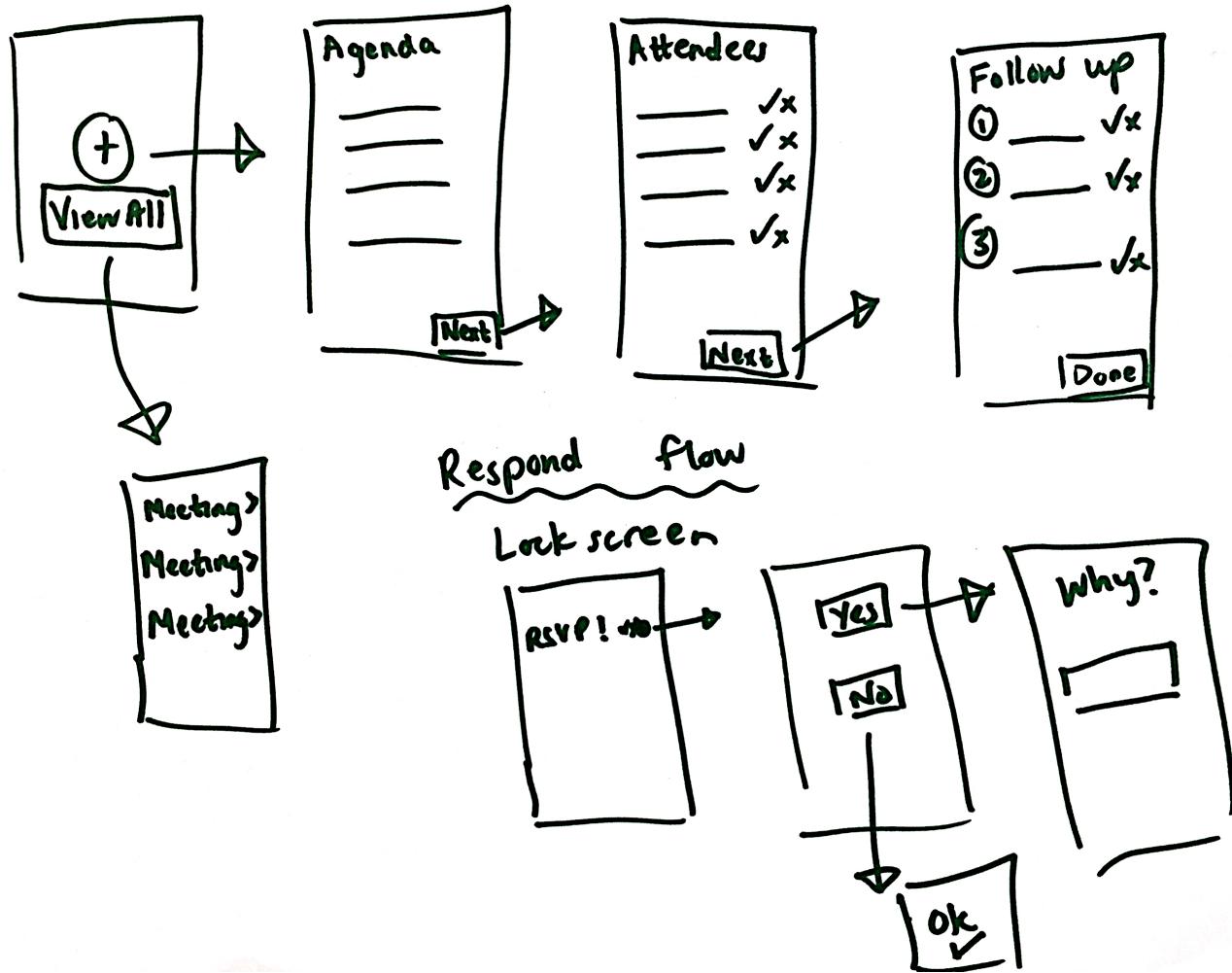
EMAIL FORMAT

DETAILS
AGENDA - events
ATTENDEE
Follow-up responses to email

Respond directly
Review
✓ ✗

MOBILE

ATTENDEE
Follow-up
Follow



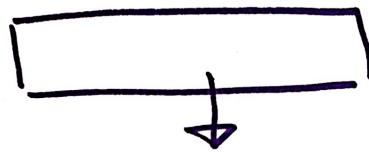
overview of sketches (figure-1)

first sketch storyboard (figure-2)

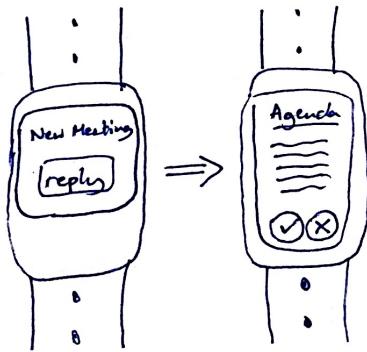
This storyboard explores a mobile interface for both the organizer and attendee. The organizer is in charge of setting the agenda, inviting the attendees, and following up after the meeting, while the attendees are responsible for RSVPing and indicating why they're needed. We chose this as one of our top two designs because it is very simplistic and straightforward.

organizer - WEB

Team/Organization:



Attendee - WATCH



24
man hours
used.
New Meeting +

Person Person Person Why
Person Person Person Why
Person Person Person Why

Action Items
x ✓
y ✓
z ✓
... . . .

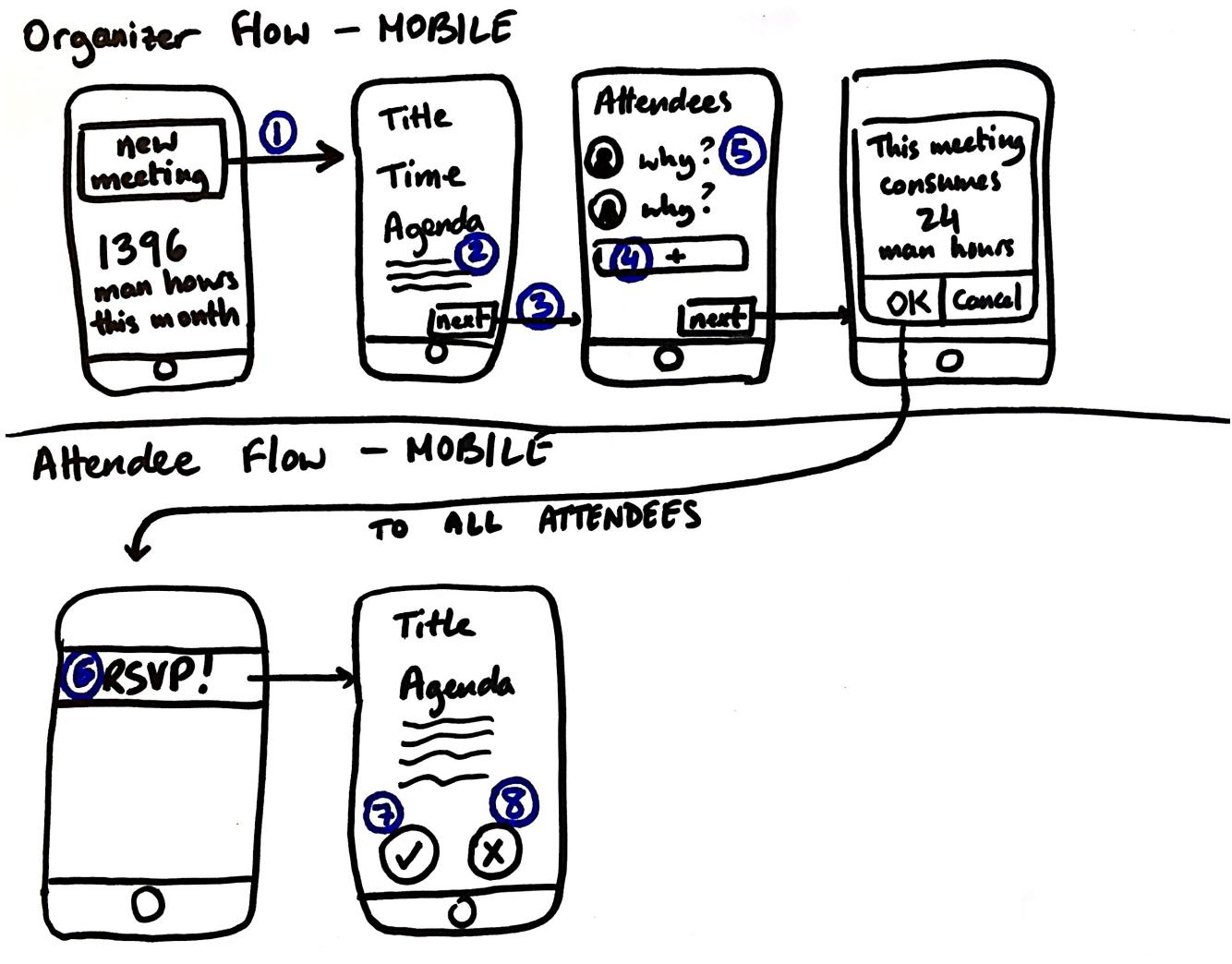
Notes
... . . .

second sketch storyboard (figure-3)

The organizer uses a web interface to choose a team, see how many “man hours” that team has spent in meetings, invite people and specify why, and set action items and notes that then get formatted as an agenda. Invitees use a watch interface to get meeting notifications, read the agenda, and RSVP. We chose this as one of our top two designs because it adds more viewer and technology flexibility. Furthermore, the approach of showing “man hours” would change meeting mentality and behavior.

Selected Interface Design

Selection



selected interface design (figure-4)

Reasoning for Selection

We decided on a compromise of sketches for our selected interface design (see figure 4). Our final design is similar to our first sketch storyboard (see figure 2), but also takes components from the second (see figure 3). We've decided on an all-mobile interface. For attendees, we needed convenience, but also utility, which the watch didn't provide. One of our main priorities is to avoid fragmentation, and attendee flow is smoothest on one device, rather than splitting into web/mobile.

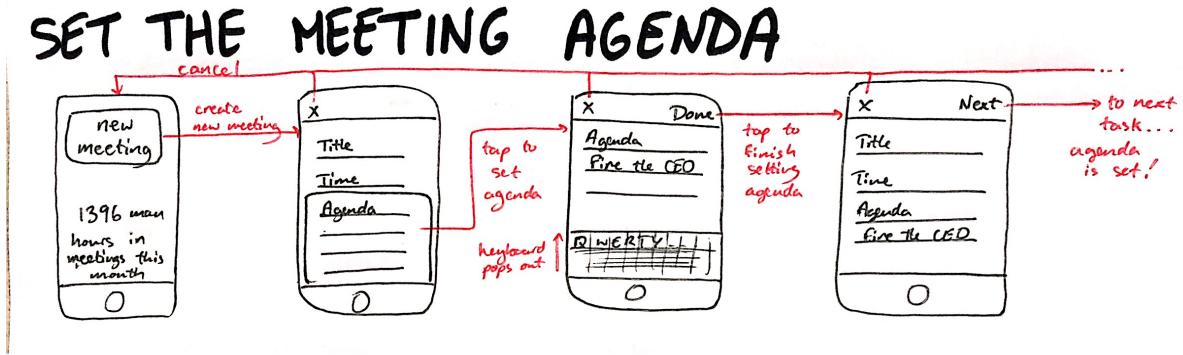
In selecting our interface design, we chose to implement several productive roadblocks to ensure purposeful meetings. We decided that the reasons for inviting each person should

be the organizer's responsibility, with attendees simply "confirming". Additionally, we decided to keep the "man hours" idea from the second storyboard, show in our final selection. Extending on this idea, a running tally of "man hours" will be kept for the most recent month. By forcing the organizer to second-guess their choices and see the impact scheduling the meeting has on others' productivity, we hope to change meeting invite behaviors.

Selected Interface Functionality Table

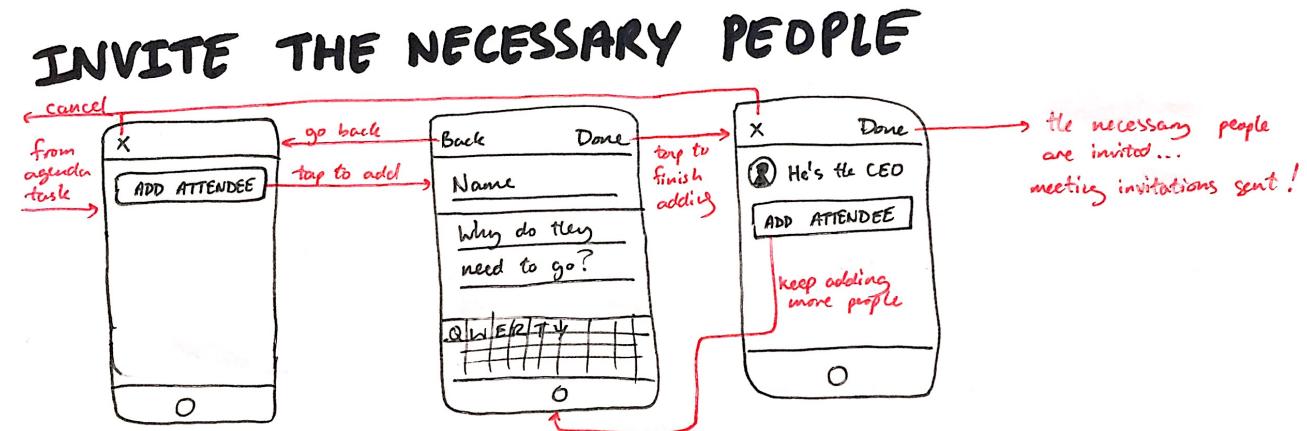
Task 1: Set the Meeting Agenda	Tap to create a new meeting (1) and then tap on the agenda (2) to reveal a pop-up keyboard. Then type out the agenda.
Task 2: Invite the Necessary People	After the title, time, and agenda have been set, tap next (3) to bring up the attendees screen. Tap the + button (4) to add attendees and tap why? (5) to give a reason they're necessary.
Task 3: Attendee RSVP	Receive a push notification to RSVP (6) and tap it to bring up the RSVP screen. Read the agenda and RSVP by tapping "check" (7) or X (8).

UI Storyboard for Task 1: Set the Meeting Agenda



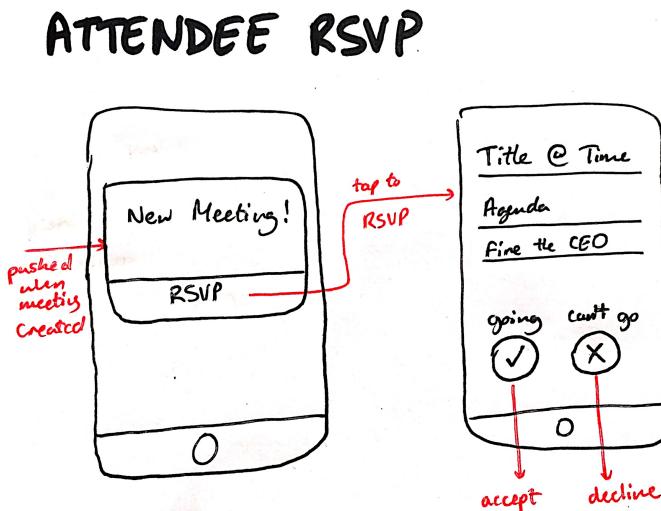
UI Storyboard for Task 1 (figure 5)

UI Storyboard for Task 2: Invite the Necessary People



UI Storyboard for Task 2 (figure 6)

UI Storyboard for Task 3: Attendee RSVP



UI Storyboard for Task 3 (figure 7)

Prototype

Screens

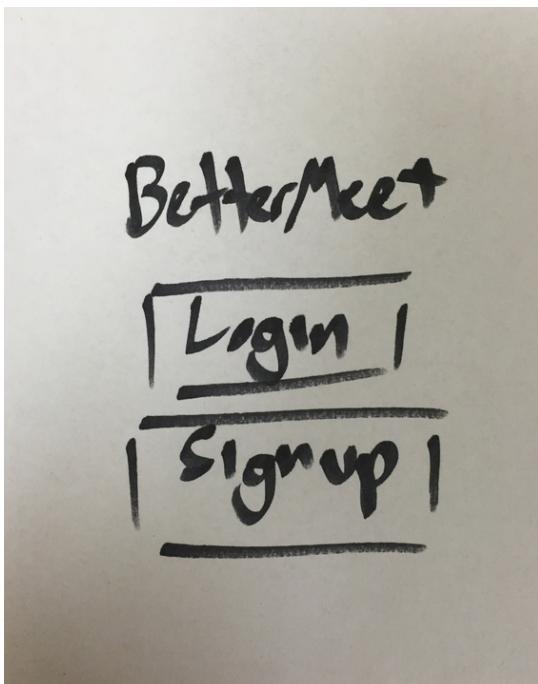


figure 8

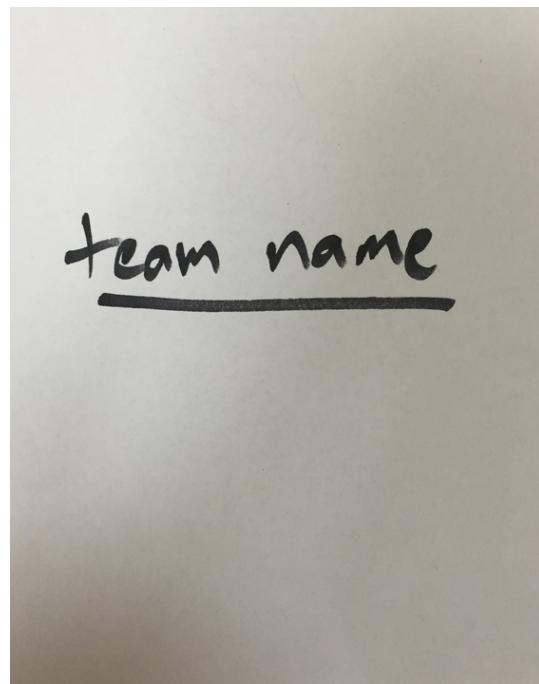


figure 9

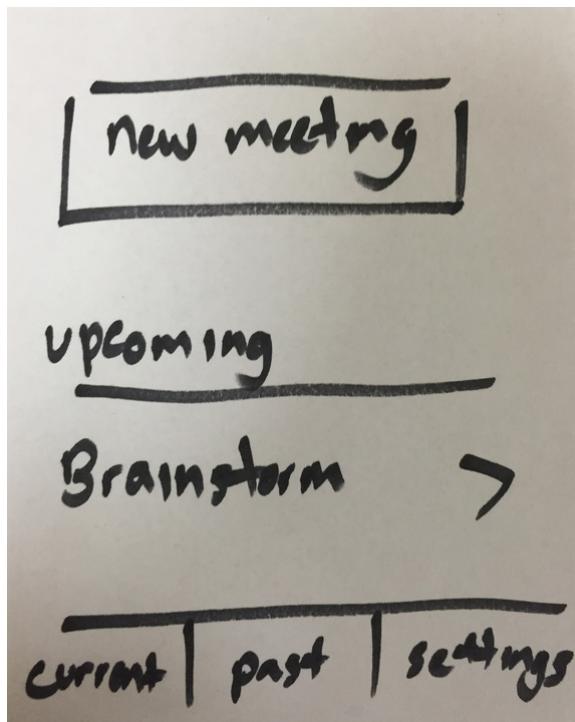


figure 10

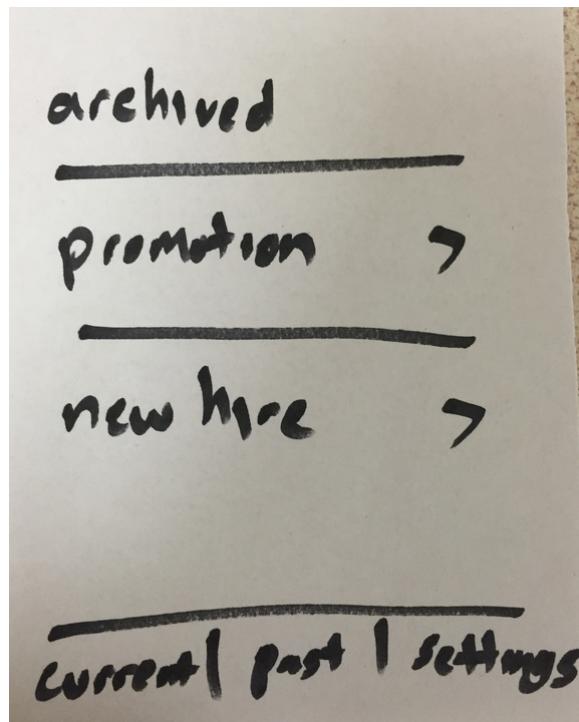


figure 11

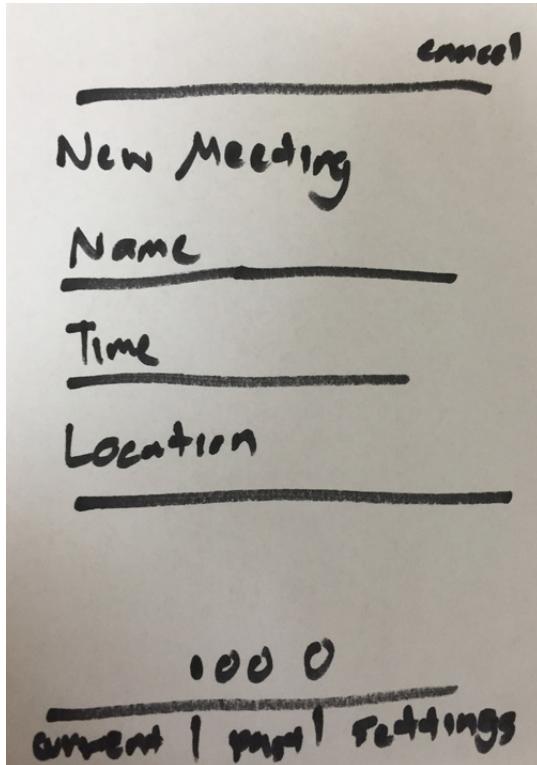


figure 12

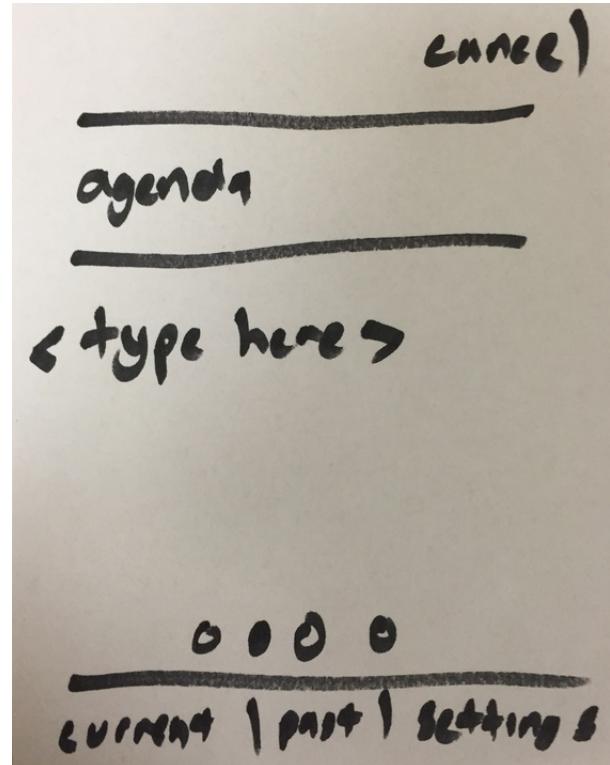


figure 13

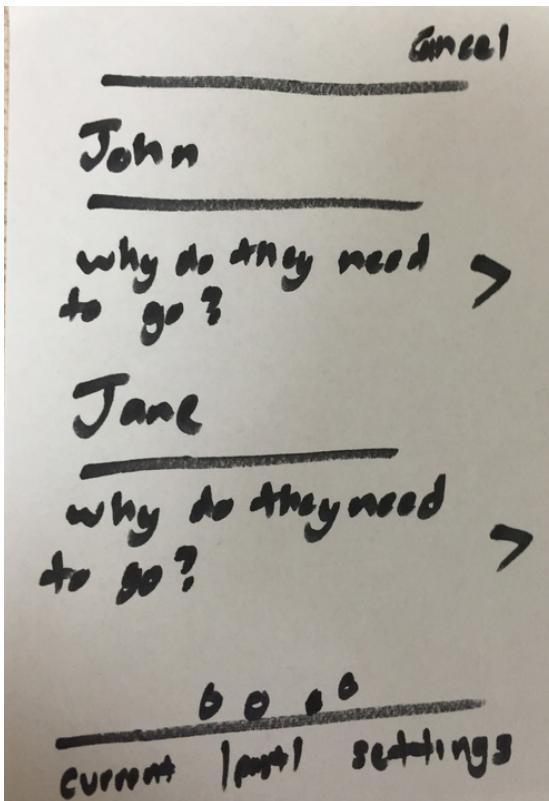


figure 14

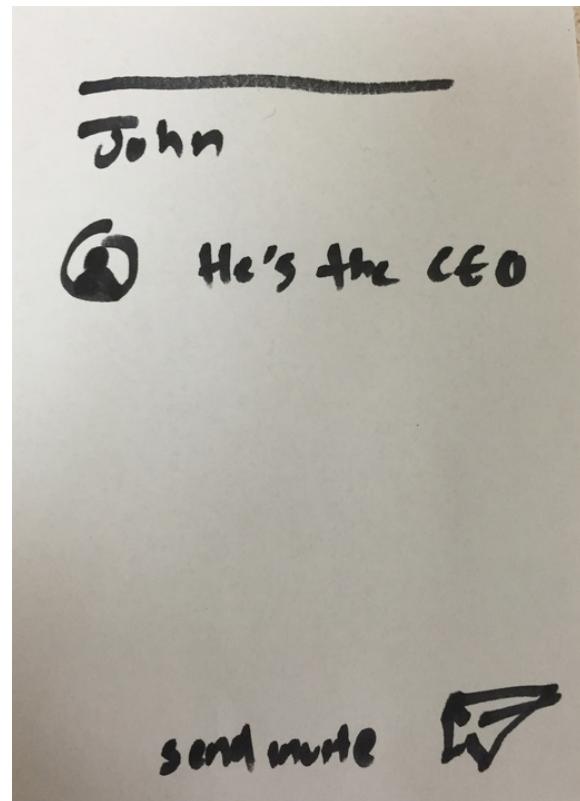


figure 15

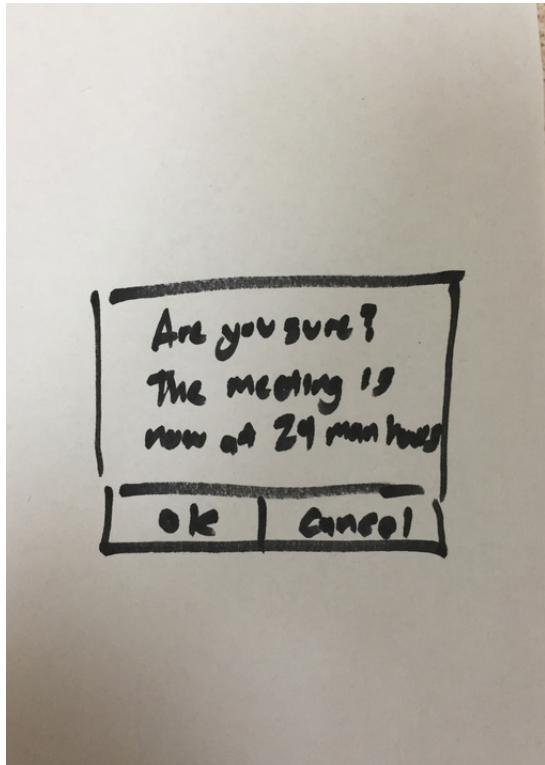


figure 16

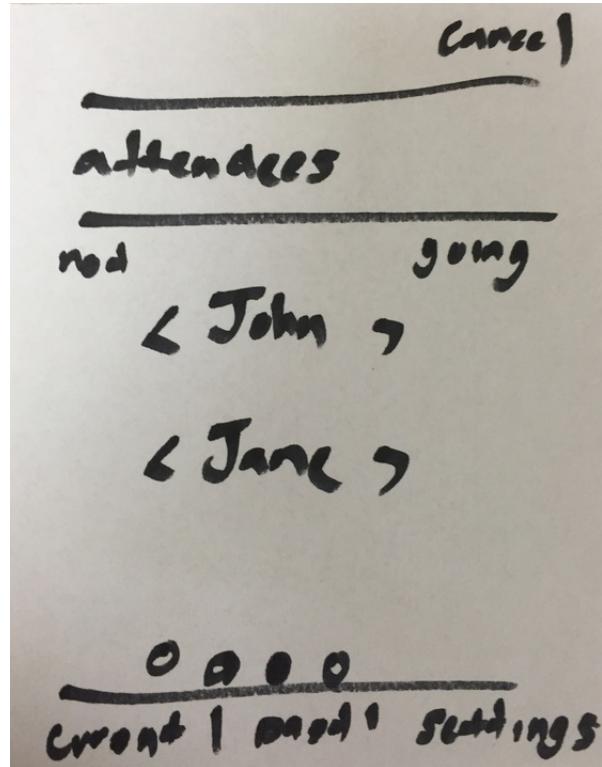


figure 17



figure 18

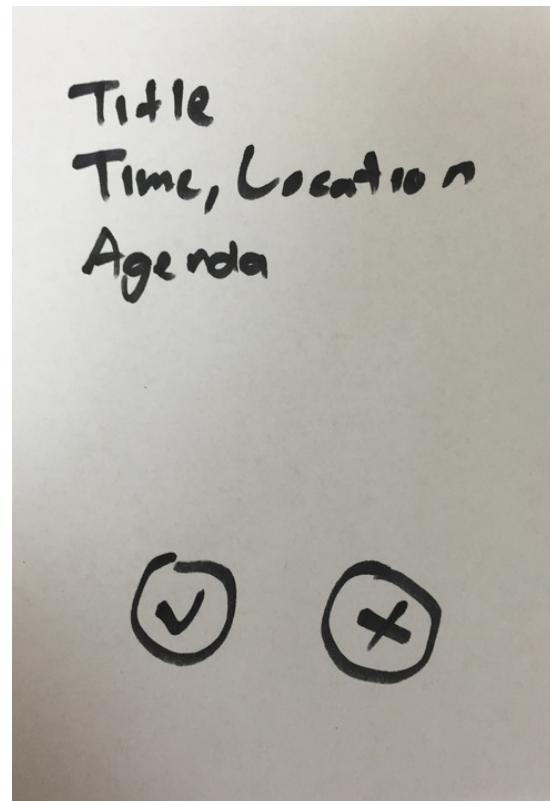
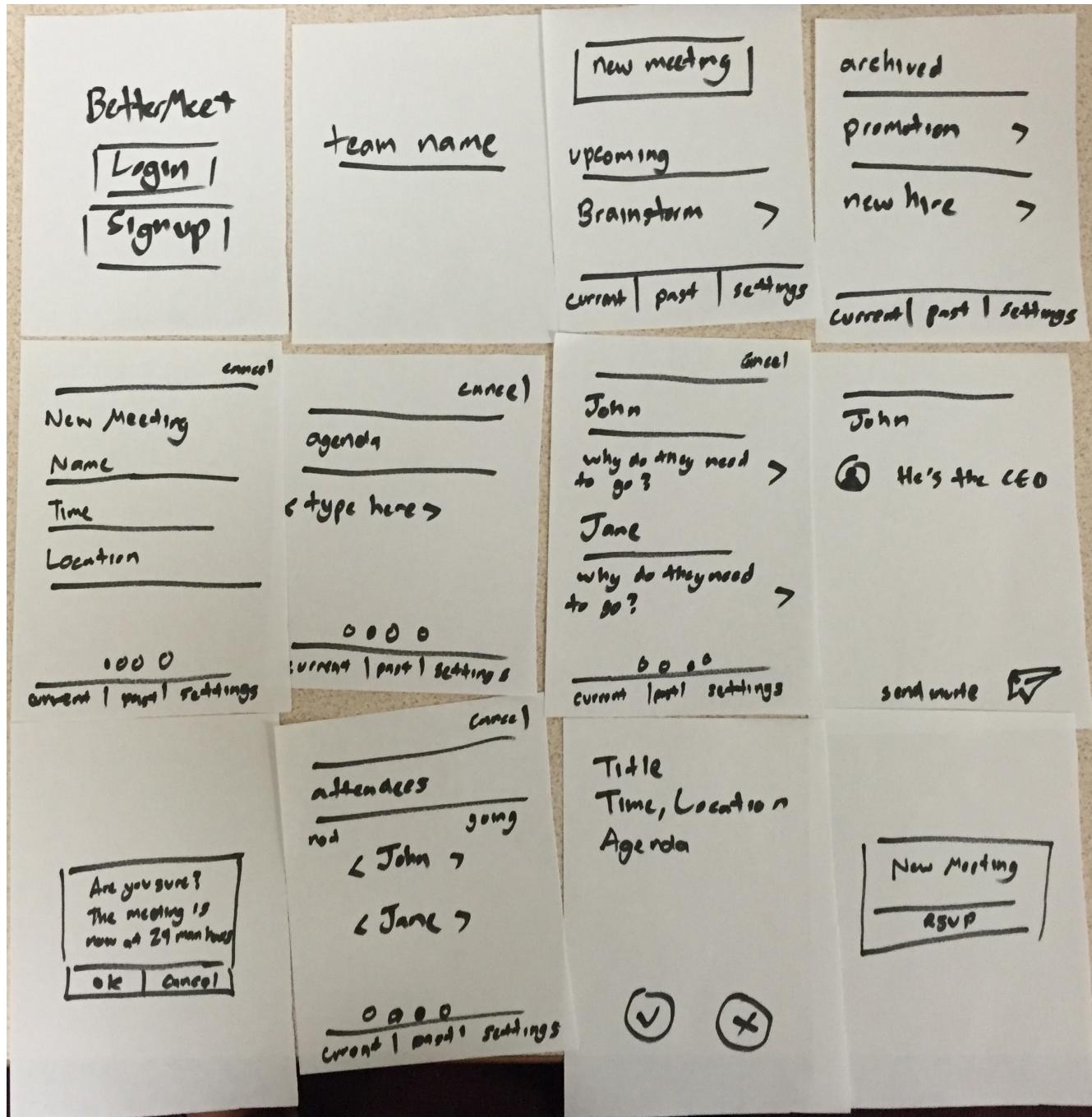


figure 19

Entire System



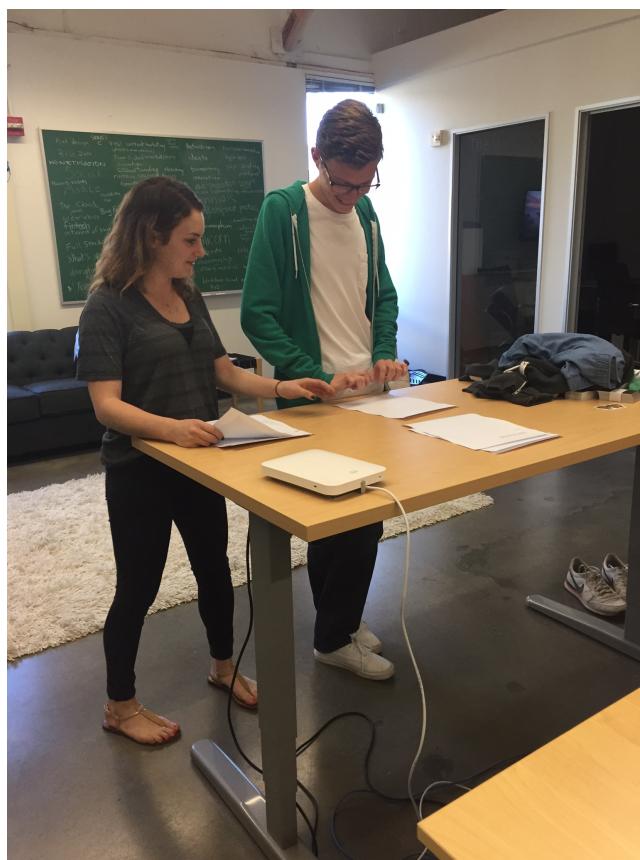
entire prototype system (figure 20)

Description

Our prototype represents a smart phone screen. User touch input moves through the various visual screens. The meeting organizer starts at the login page (figure 8). They log in (will happen automatically if they've logged in before) and decide which team they want to create a meeting for (figure 9). On the home screen (figure 10), users can create new meetings or peruse upcoming and past meetings (figure 11). Once they click on "create meeting" they will be brought to a screen where they can set the title, times, and location of the meeting (figure 12). They then swipe right to a screen where they can set the agenda (figure 13). They then navigate to the invite screen where they can add attendees (figure 14). When adding an attendee, they are brought to a new screen where they have to briefly say why that attendee must be at the meeting (figure 15). Once they've selected all the attendees and tap next, they get a pop-up warning them of how many "man hours" the meeting will consume (figure 16). From this pop-up, they can navigate back to adjust attendees again, or finalize the meeting. Once the meeting is finalized, the attendees will get push notifications (figure 18) and the organizer can see everyone's RSVPs (figure 17). When they interact with the push notification, they will be brought to a screen where they can read the agenda and RSVP (figure 19).

Method

Participant #1



participant #1 (figure 21)

Jack is 21 years old and grew up in the Bay Area. He is currently a student at Santa Clara studying sociology with a concentration in group communication. We selected Jack because he self identifies as an “early adopter of new technology,” and enjoys interacting with early stage prototypes. Additionally, we felt he would provide an interesting prospective given our product’s relationship to his field of study. We compensated all participants with cookies.

For this experiment, Theodora was the greeter, Tommy the facilitator, Liza the computer, and Derin the observer. We used full size paper to represent a mobile phone screen. Our testing was completed in a quiet environment. We began by telling Jack that he would be organizing a meeting. We went through the first three tasks which are creating a meeting, writing an agenda, and sending meeting invitations. Jack struggled with

understanding how to move from one task to another and was frustrated that there was not a cue for moving on when the task was complete. However, Jack did a good job understanding how to do the tasks themselves and after the walkthrough mentioned the importance of the agenda in impacting invitation behavior.

Jack was the slowest (see figure 25) and made two errors (see figure 26). We then told Jack to take a short break and get water. When he returned we explained that he had received a meeting request. He then completed the final task of accepting the meeting and sending his RSVP. This all went very well and only took about a minute.

Overall Jack did very well with the prototype. One thing we learned is we may need better cues as to what to do when a task is complete.

Participant #2



participant #2 (figure 22)

Stacy is from New York and is a senior at Stanford studying economics. We ran this experiment in a study room at Stanford with minimal distractions. For this experiment, Derin was the greeter, Theodora the facilitator, Tommy the computer, and Liza the observer.

We went through the same set of tasks with Stacy as we did with our previous participant, Jack. Stacy didn't have quite as easy of a time completing a few of the tasks. She seemed a bit frustrated and communicated that this may be unnecessary for setting up a meeting. She asked, "What if my meeting doesn't have an agenda?" All and all, she did a good job moving through the prototype. Stacy was second slowest, but still moved relatively quickly (see figure 25) and made three errors (see figure 26).

Stacy enjoyed the final task. She was quick to accept the meeting and then declined after seeing the notification that the meeting would take 24 man hours. She said, "This would give me an easy out - awesome!"

One of the key findings of Stacy's experiment is that people may have different feelings regarding using the app as an organizer vs. and acceptor. How do we design the experience to accommodate for those who rarely create meetings?

Participant #3



participant #3 (figure 23)

Sonia is 25 years old and graduated from Cornell with a degree in creative writing. She began working at Robinhood this week in user-experience research and design. Sonia was selected because she is a full-time employee and has no previous knowledge of our project. For this experiment, Theodora was the greeter, Derin the facilitator, Liza the computer, and Tommy the observer.

Sonia performed very well on all of the tasks with little confusion. She asked why there was a tab for past meetings commenting, “after a meeting I usually write my to-do items in a notebook and move on with it. The only times I see meeting notes to be helpful is when I miss a meeting or want information about a meeting I did not need to contribute to.”

Sonia was generally the second fastest out of all the participants (see figure 25) and made two errors (see figure 26). Sonia was put off by the “man hours screen”.

Participant #4



participant #4 (figure 24)

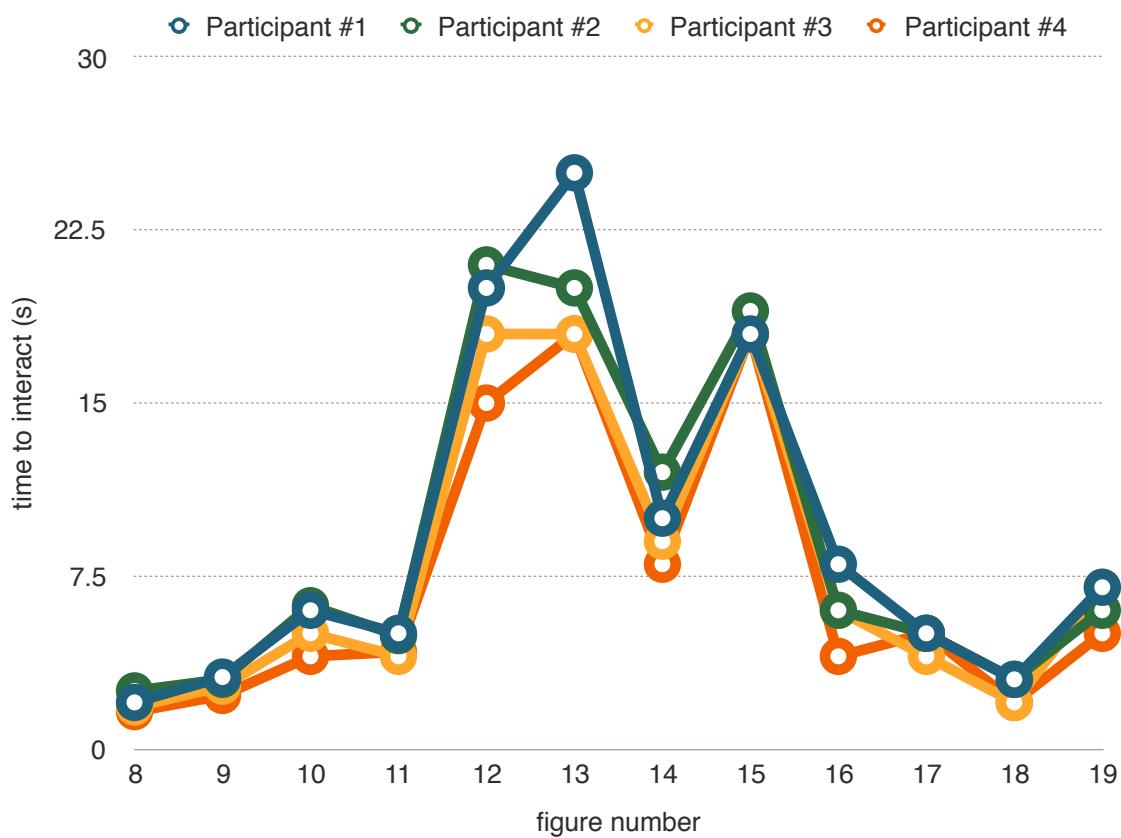
Shrey is 31 years old and was selected because he is an extreme user. Attending around 5 meetings a day, most of which he organizes. We performed this experiment while walking to see how the experience held up on the go. While juggling the papers was tough, the experiment worked well while walking. For this experiment, we decided to keep the same roles as the previous experiment. Theodora was the greeter, Derin the facilitator, Liza the computer, and Tommy the observer.

Shrey also performed well on all of our tasks. He was generally the lowest on all the time metrics (see figure 25) and made one error (see figure 26). Shrey commented that he couldn't see the people who report to him downloading this app just to track their RSVPs. It would be important that we integrated with calendar apps where all meetings are managed.

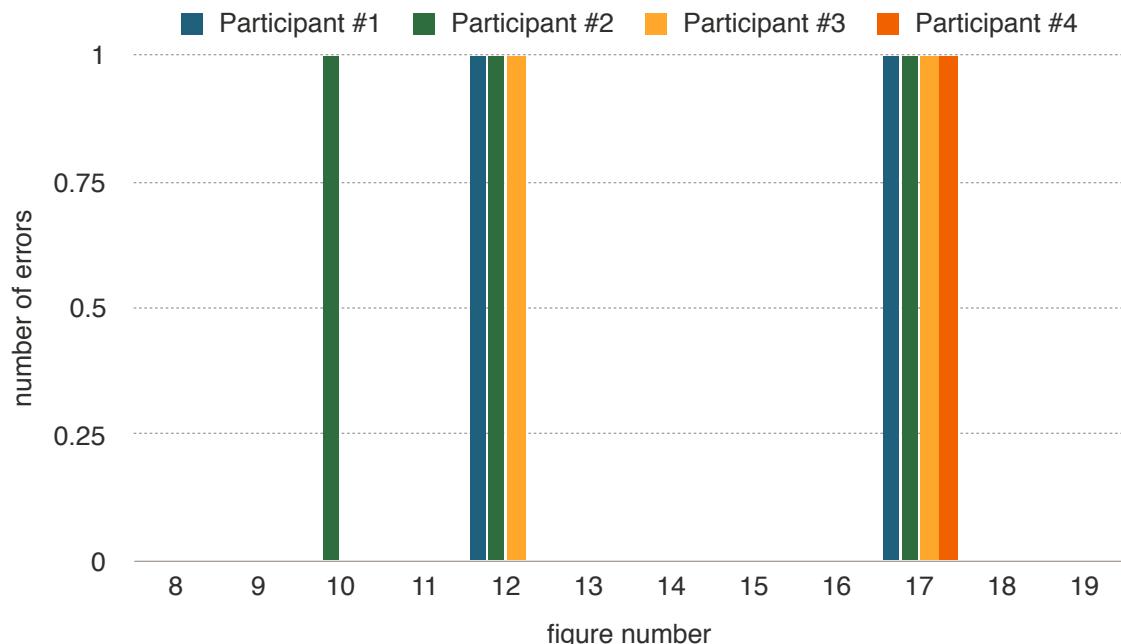
Similar to Sonia, Shrey commented on the past meetings tab. He mentioned that he likes to be able to see meeting notes from other teams in the org so he can understand what they are working on. He said, "I wish there was a social feed where I could browse meeting agendas and notes from meetings I was not invited to or weren't directly relevant to my team. I just like to know what's going on."

Results

Graph of Time to Interact vs. Figure Number (figure 25)



Graph of Errors vs. Figure Number (figure 26)



Discussion

In the process data we collected, we observed that people were able to navigate screens individually but often weren't sure how to move from screen to screen. This was especially problematic on screens 12 and 17, when almost all the participants did not fully understand the navigation UI and made errors (see figure 26). This may be due to the relatively small number of calls-to-action on the screens. To remedy this, we may want to do more research on how other applications let users know that they can move between screens - whether that is through a button or showing them that they can swipe the screen or even showing their progress of creating a meeting somewhere on the screen. Time to interact was low throughout (see figure 25), and we believe that by changing the navigation UI we can lower it even more.

We also had a participant mention that she doesn't always have agendas for meetings. Although forcing agendas may be an aspect of behavioral change, one possible way to improve user experience would be to allow participants to create chats where some screens, such as agenda setting, are optional. Alternatively, we could ask for purpose of a meeting, rather than agenda. This would allow for meetings that are meant for ideating and general discussion rather than just meetings where action is taken or decisions are made.

A majority of participants said that going through the various roadblocks did make them re-consider the length of the meeting. This was surprising to us as we originally thought of meetings in a more binary sense - whether a meeting is held at all. However, after looking at the man hours screen, two of our participants went back and changed the meeting's duration.

Our third participant said that she didn't foresee many people wanting to navigate to past meetings. Further iterations may experiment with a two tab layout, replacing the "past meetings" and "settings" tabs with a "more" tab that will have the past meetings and settings options in a row layout. Also suggested was adding more features to settings, which may be appropriate for a higher-fidelity prototype.

From the perspective of the attendee RSVP'ing, participants were initially confused as to how they would RSVP. Once told this was done in-app, however, all participants did comment on the ease of RSVP'ing. Possible extensions on the meeting participant side of the app may include adding features to promote "saying no" to meetings, as the app setup right now is a direct invitation from the meeting organizer, rather than an optional RSVP. One

participant also mentioned that he wasn't sure how to cancel or reverse an RSVP after making it. Exploring a combined UX, we may want to change the "past meetings" screen to an "all meetings" screen where users can see meetings they've been invited to or have created and be able to tap on a meeting to then view the meeting details and/or change their RSVP.

Although we gained many insights on the direct usage of the app, missing from this experiment is insight as to whether people would independently use this product to schedule meetings since user testing forced usage of the app. One participant who was using the app from the "attendee" side of the app commented that they would be unlikely to download the app just to RSVP and would prefer other layouts - for future iterations, we may switch to either email or text alerts for participants to view and respond to.

Overall, we gained many insights on the app and felt that our app did seem to achieve the goal of reducing meetings and meeting attendees. Participants were generally receptive to the idea and could see the need for a tool like BetterMeet. We hope to incorporate the feedback and insights we've gained from this week to redesign and improve user flow and experience in our next prototype.

Appendix

BetterMeet Consent Form

The BetterMeet application is being produced as part of the coursework for Computer Science course CS 147 at Stanford University. Participants in experimental evaluation of the application provide data that is used to evaluate and modify the interface of BetterMeet. Data will be collected by interview, observation and questionnaire.

Participation in this experiment is voluntary. Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers Liza, Tommy, Theo, Derin or with Professor James Landay, the instructor of CS 147:

James A. Landay
CS Department
Stanford University
650-498-8215
landay at cs.stanford.edu

Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the student researchers and their supervisors/teaching staff.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the BetterMeet experiment. I also give permission for images/video of me using the application to be used in presentations or publications as long as I am not personally identifiable in the images/video. I understand I may withdraw my permission at any time

Name: Jack Randall

Participant Number: 1

Date: 10/20/15

Signature: 

Witness name: Liza Gurtin

Witness signature: 

consent form for participant #1 (figure 27)

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Name: Stacy Chun

Participant Number: 2

Date: 10/20/15

Signature: 

Witness name: Liza Gurtin

Witness signature: 

consent form for participant #2 (figure 28)

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Name: Sonia Fuller

Participant Number: 3

Date: 10/20/15

Signature: 

Witness name: Liza Gurtin

Witness signature: 

consent form for participant #3 (figure 29)

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Name: Shrey Bhatt

Participant Number: 4

Date: 10/20/15

Signature: 

Witness name: Liza Gurtin

Witness signature: 

consent form for participant #4 (figure 30)