

The Creation of Low-fi Prototypes

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I. Introduction

At Phocus, we solve one of most annoying problems gripping our digitized world: the over-usage of electronic gadgets. We have all seen that person, who sends text messages during dates, scrolling through news feeds every other minute, and totally ignores everything going around him or her. By enabling users to escape from technological distractions, our app helps them build up healthy usage habits over time. It achieves this by allowing people to join individual or group Phocus sessions. The users will publicize their focusing achievements and failures to their friends.

In summary, our mission is to allow people to be fully present in the moment--whether they are doing work alone or in a group or spending time with friends and family. Our value proposition is "**Time Well Spent.**"

II. Sketches

Concept Sketches:

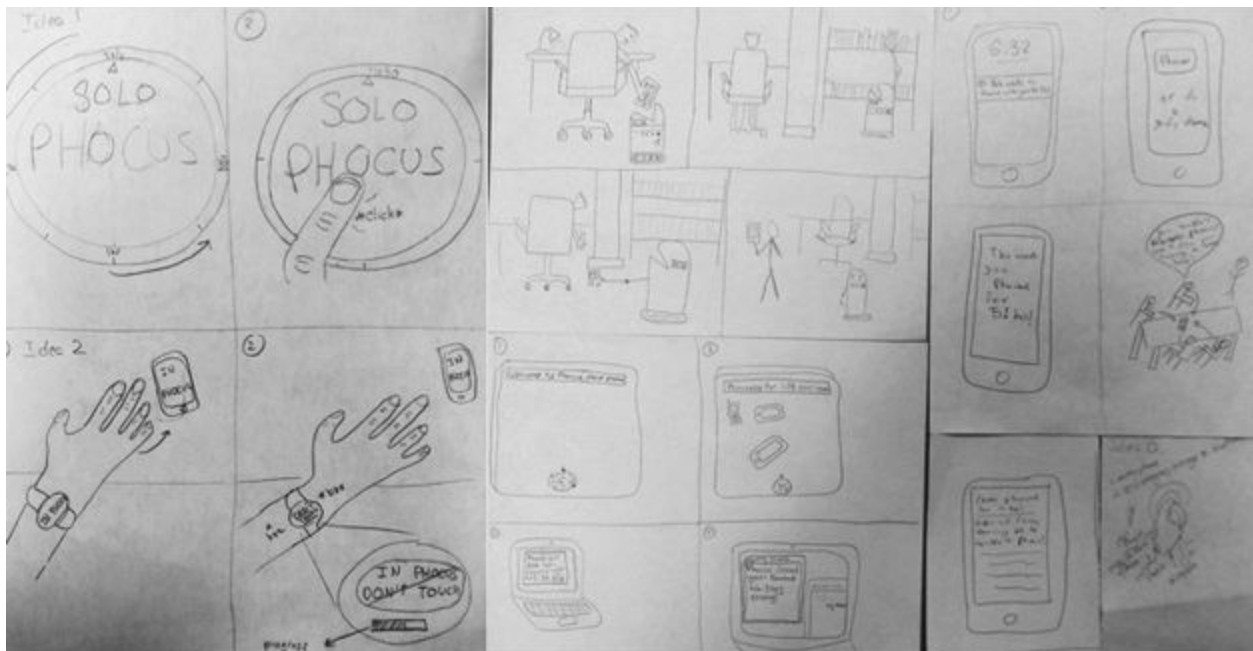


Image 1. Overview image for sketches. From left to right: Concept Sketches for the Phocus Button idea, the Phocus Watch idea, the PhocusBot idea, the Phocus Pad idea, and Phocus mobile app idea.

Our first idea, the Phocus Button would serve as a combination of egg timer and the Easy button that would be synced to the user's phone. It would allow individuals to set a Phocus time and start their session at the same time in a visually appealing way.

The PhocusBot takes your phone from you and anyone else in the Phocus session and places it somewhere safe, but random and hidden and does not bring it back until the Phocus session is over.

The Phocus Pad is a pad that can be placed on any surface which recognizes the weight of phones, displays the punishment, and allows users to set the timer for their Phocus sessions. Users who pick up their phones automatically break the Phocus section.

Phocus Watch and Phocus mobile app will be introduced below.

UI Sketches:

We picked two sketch ideas: Phocus Watch and Phocus mobile app.

Phocus Mobile Application sketch (Image 2): the app enables users to create group Phocus (groups of people who want to Phocus) and individual Phocus sessions. In addition, a mobile application would enable users to videotape funny or embarrassing challenges in case they fail to Phocus and need to post information online.

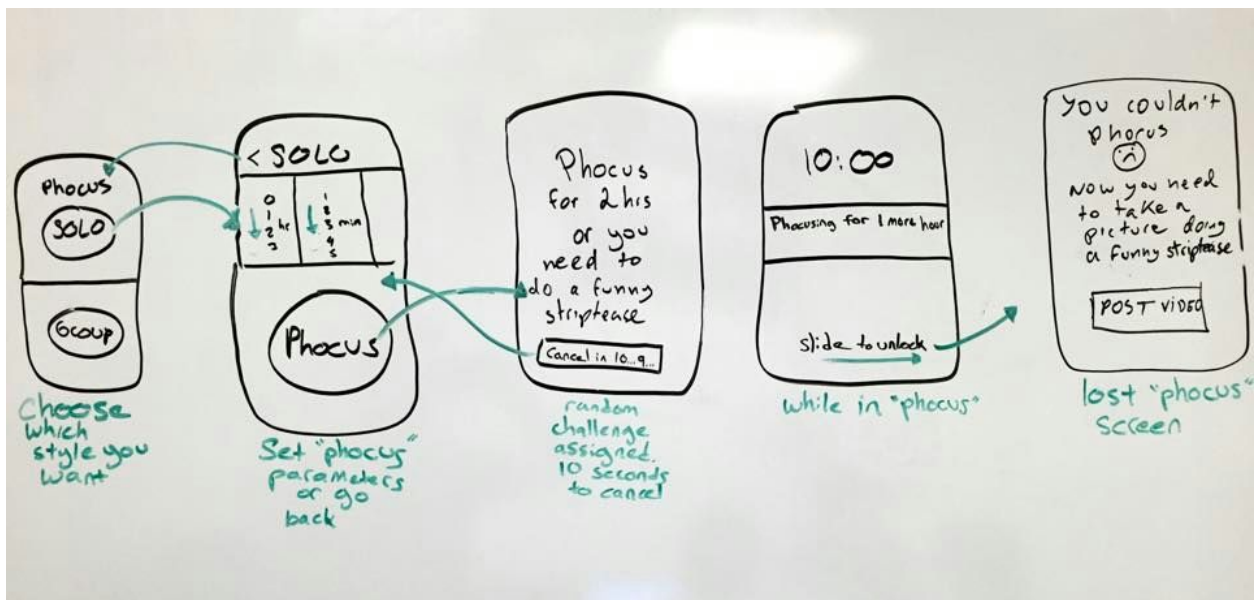


Image 2. UI Sketch of the App Idea

Phocus Watch mobile app sketch (Image 3): Phocus Watch would have a button in the middle of its screen. If the user clicks it, a focus session will be created and the phone will be muted. If the Phocus Watch approaches the phone any time during the focus session, the Watch will vibrate on the user's wrist and warn the user not to use the phone.

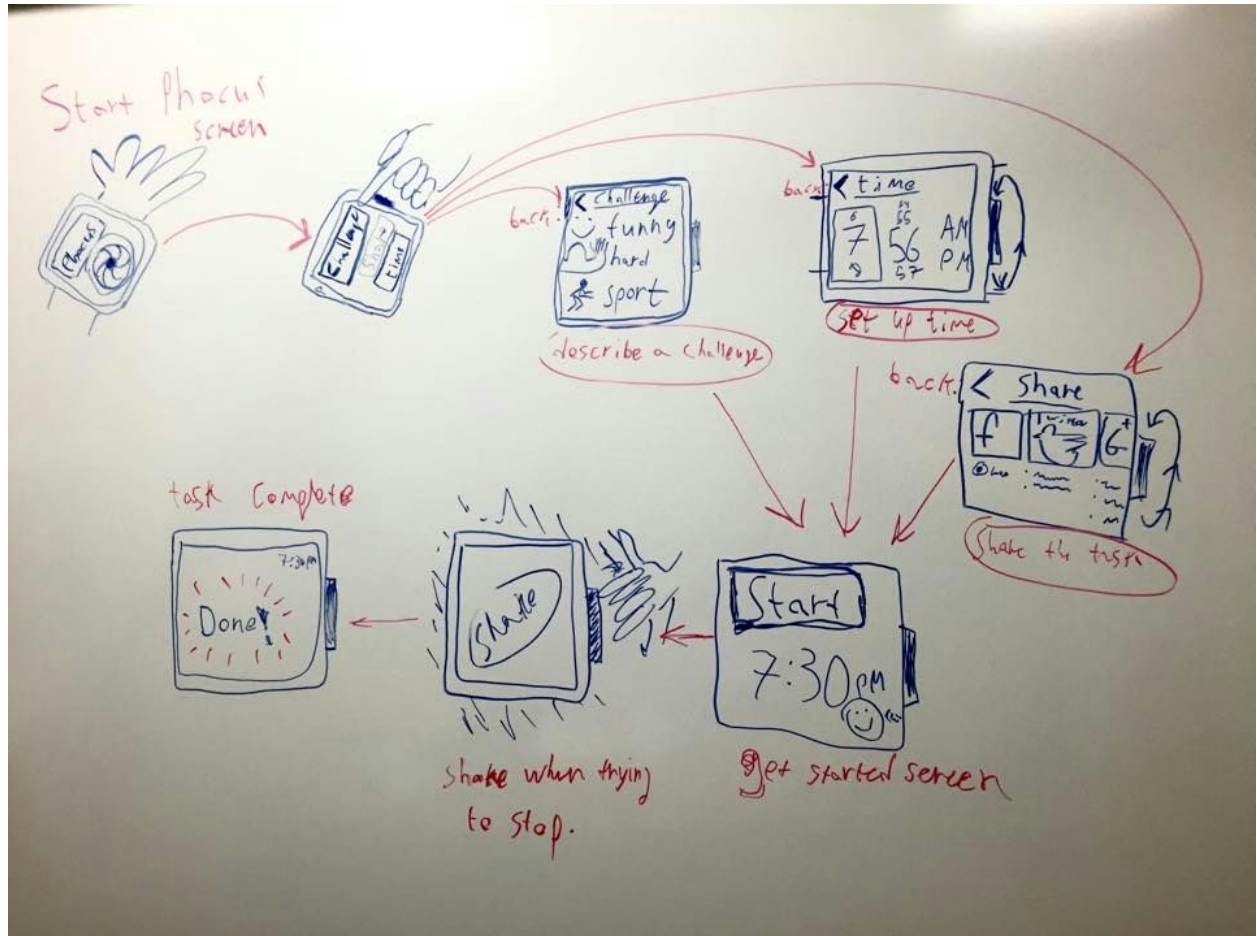


Image 3. UI Sketch of the PhocusWatch Idea

III. Selected Interface Design

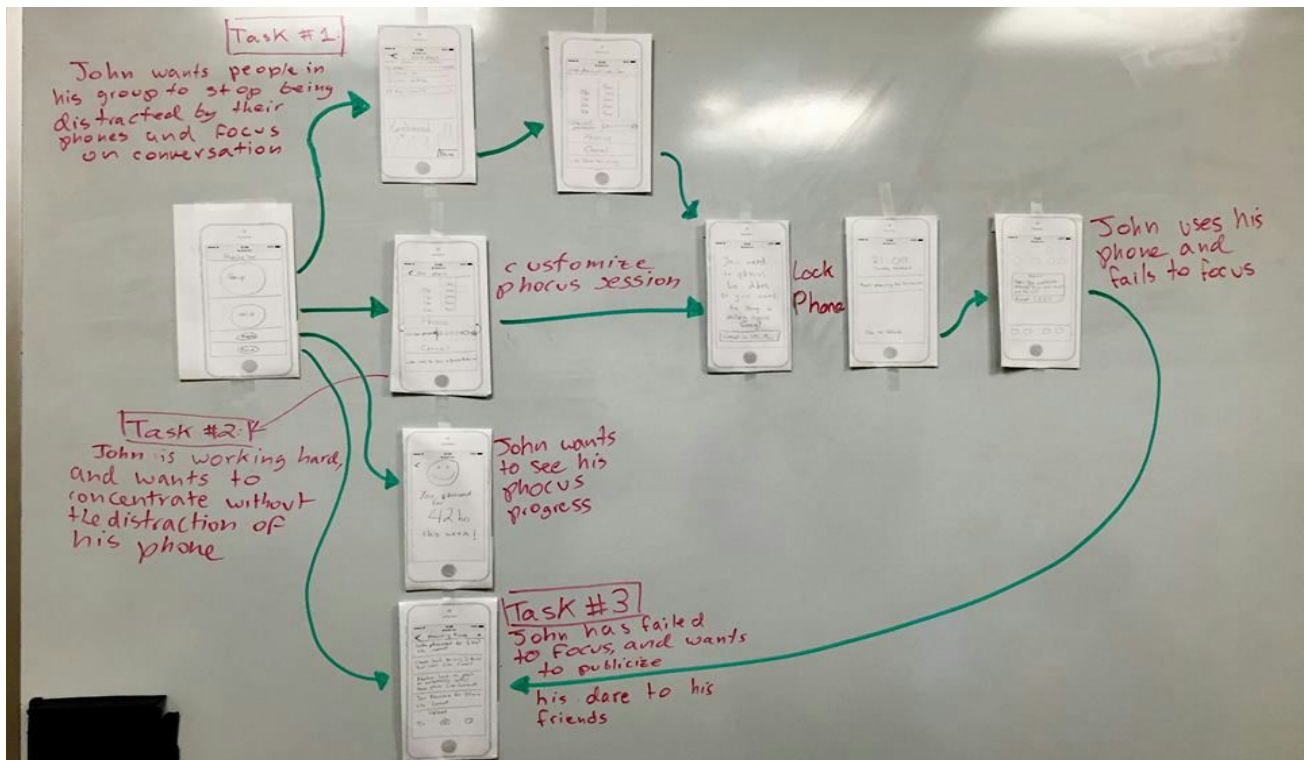


Image 4. UI Storyboard for Selected Interface

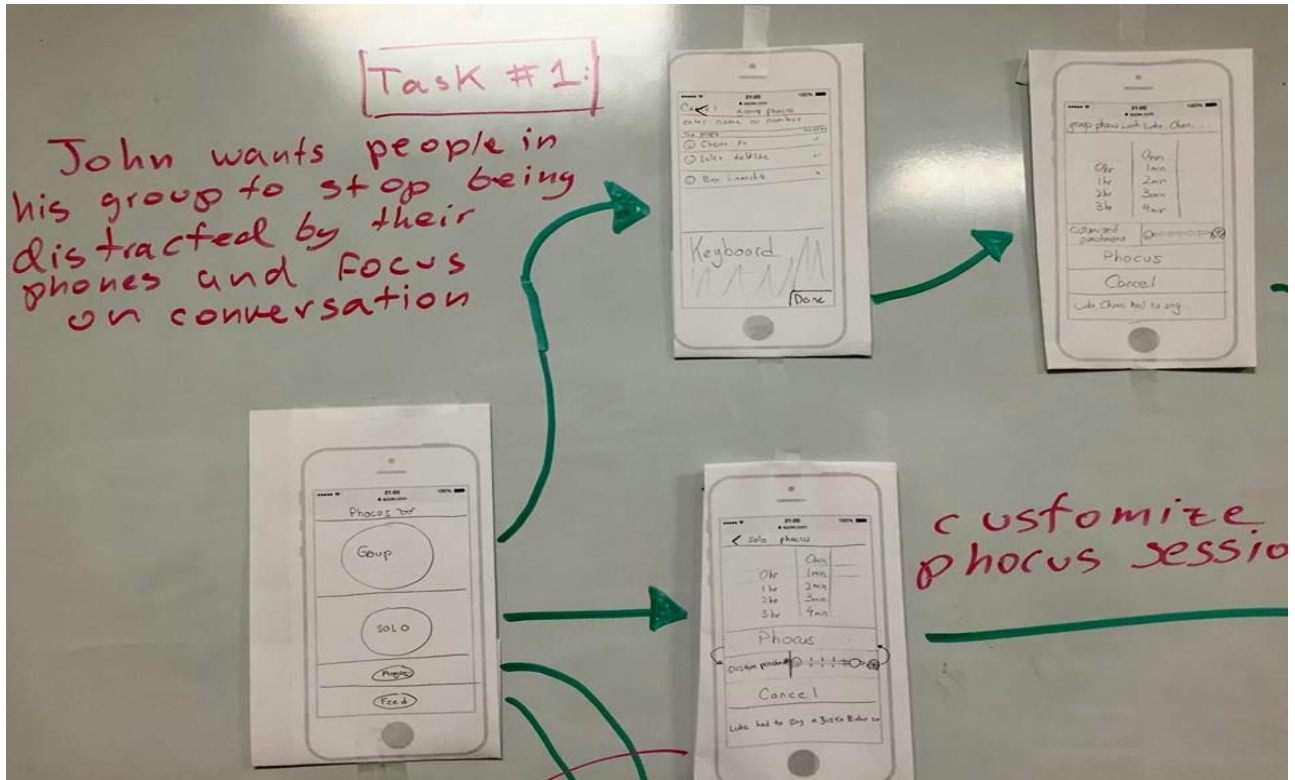


Image 5. Part of UI Storyboard for Selected Interface

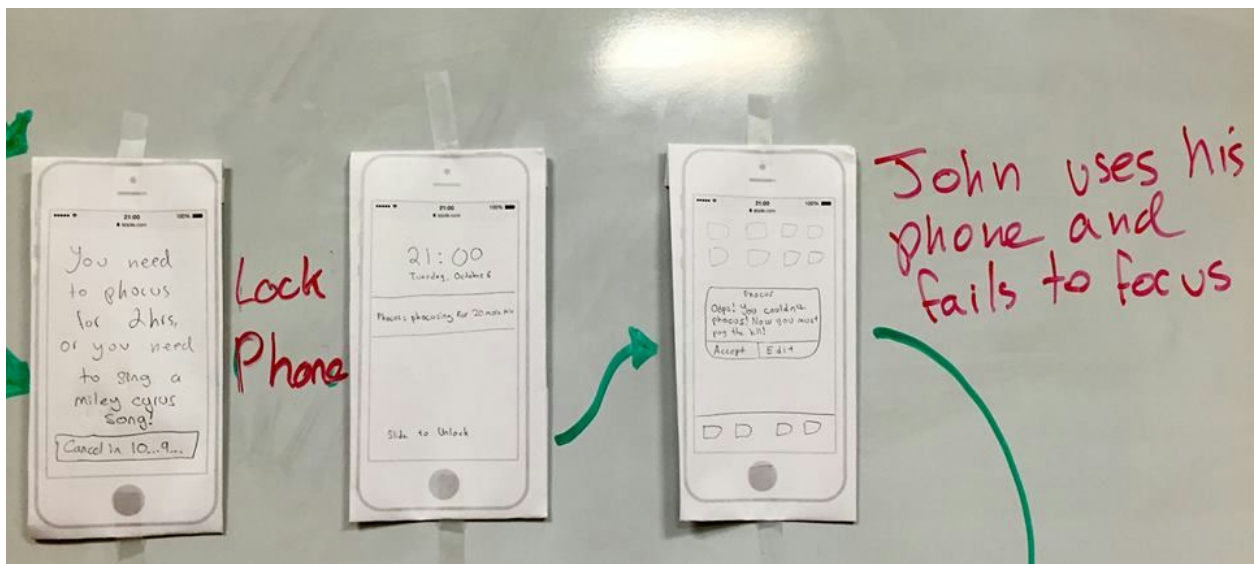


Image 6. Part of UI Storyboard for Selected Interface

Rationale for Selection

We selected the Phocus App idea for three reasons: easier adoption, greater ease of use, and greater social functionality.

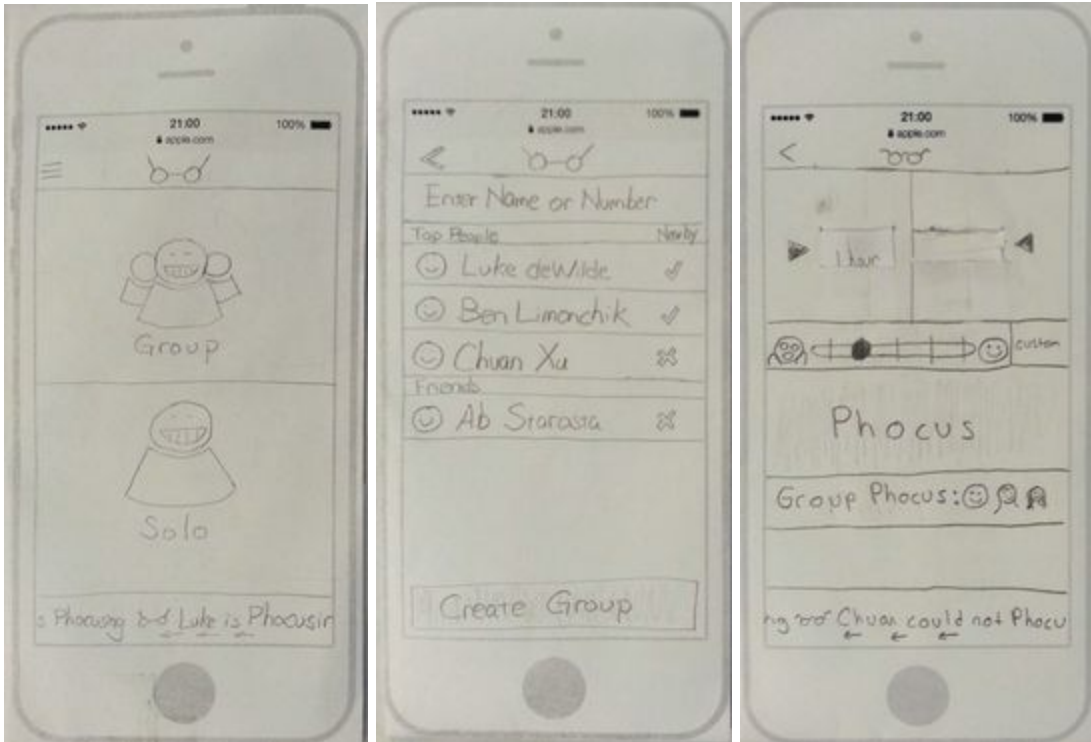
We were very excited for the originality and simplicity of the Phocus Watch and the Phocus Button. However, given that both the Watch and the Button had very few functions beyond making users focus, user adoption may be problematic. A mobile app, in contrast, is easier to adopt.

Secondly, we believe that the Phocus App is easier to use. For the Watch and the Button, the user has to set up the hardware by connecting it with the phone. Making this connection takes time and knowledge that the Phocus App does not require.

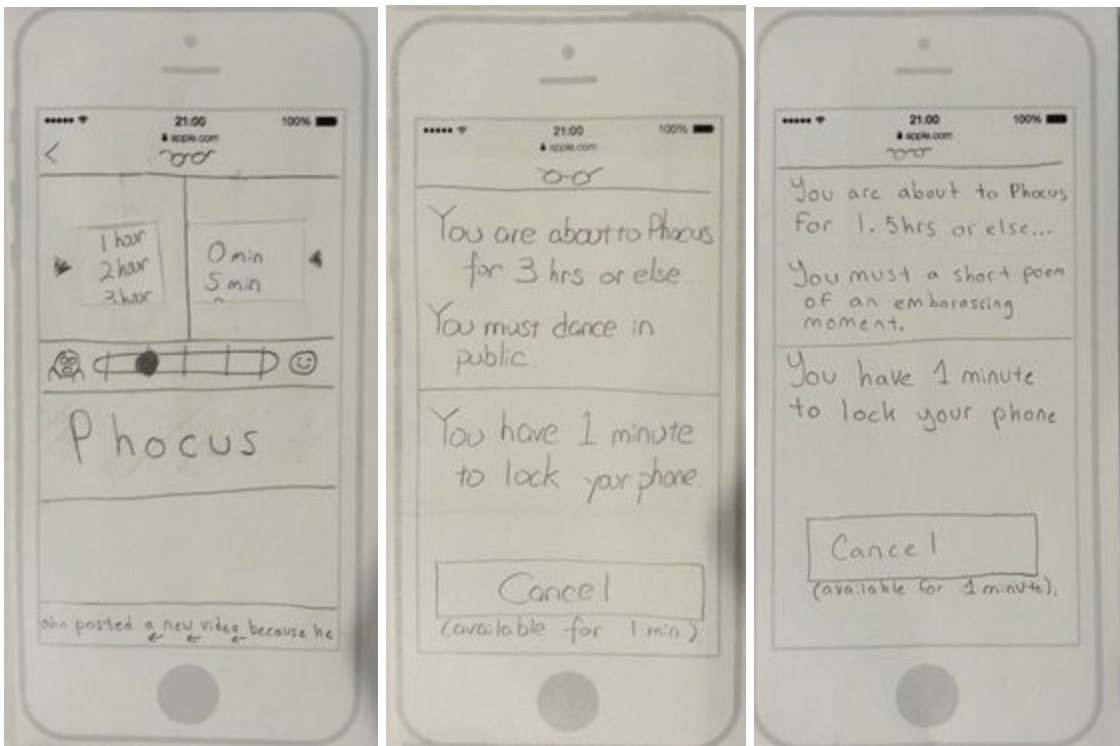
Thirdly, the Phocus mobile app enables users to take pictures and videos of other who have failed to focus. The Watch and the Button do not have such functionalities. Since socialization is a critical component of our product concept, we believe the Phocus app is a better medium.

IV. Prototype Description

Our app allows individuals or groups of people to create customized focus sessions and publicize their attempts to focus in a Facebook-like social platform. Users interact with the app through touch, scrolling, and textual inputs.



Images 7-9. The Home Screen, the Friends Selection Screen, the Phocus Settings Screen (for group)



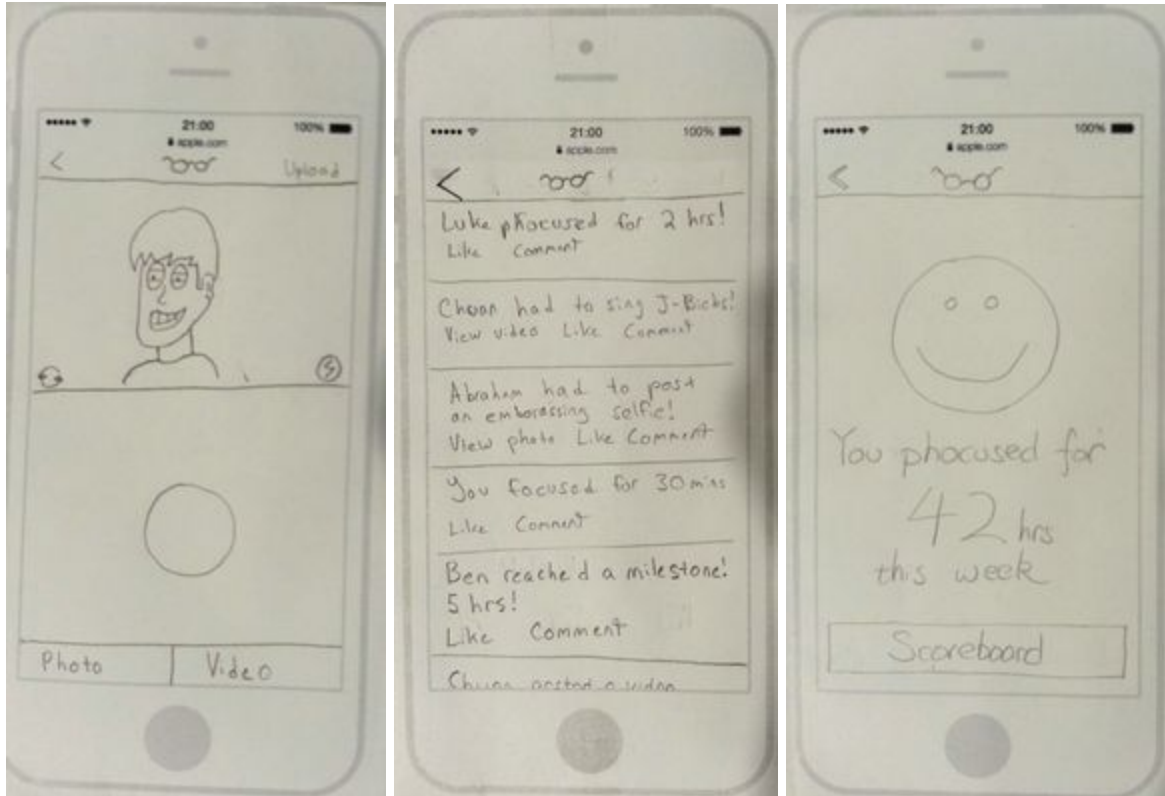
Images 10-12. The Phocus Settings Screen (for solo), and two types of Phocus Session Summary Screen.

The home screen (Image 7) allows users to choose whether to create a group session or a solo session. If they want to create a group session, they will select those who should join the session from the friends list (Image 8). After they choose the type of their preferred session, they will set the duration and the “dare” challenge type (through the Punishment Scale, which allows users to choose “dare” challenge type on a scale from “Embarrassing” on the left to “Funny” on the right) in the next interface and click the “Phocus” button (Images 9-10). Then, the next screen (Images 11-12) will summarize the information of the focus session and which “dare” challenge the users must finish if they fail to focus; it will also remind the users to lock the phone within 1 minute.



Images 13-15. *The Push Notification Screen, the Failure Reminder Screen, and the Dare Screen.*

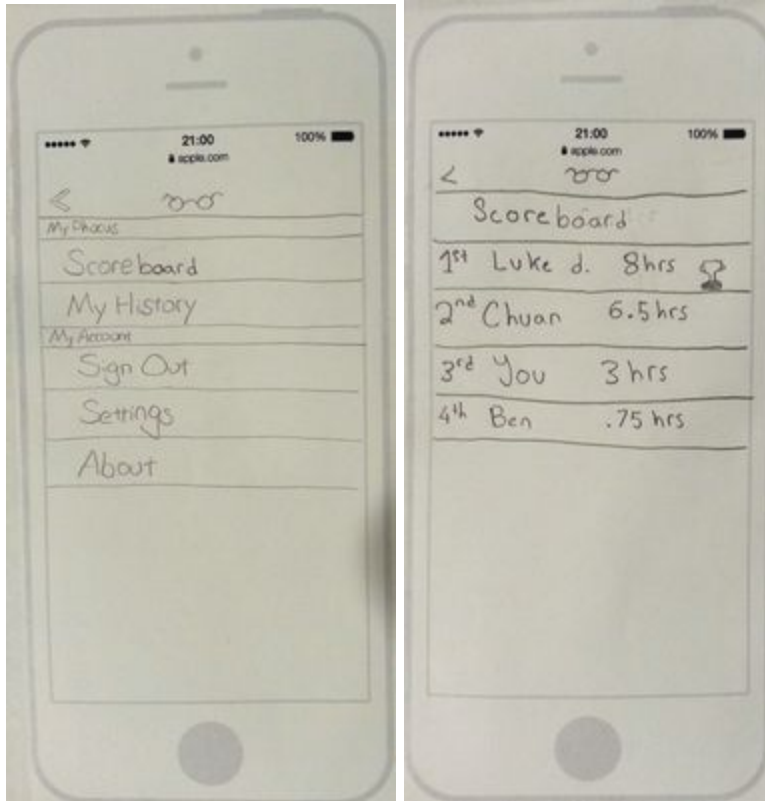
During the focus session, if the user unlocks the phone, the app will remind the user that he/she has failed to focus (Image 14). Once the users click “Accept”, the next interface will remind them of their “dare” challenge (Image 15) and allow them to upload photograph or a video in the next screen (Image 16). After they post their “dare” challenge, it will show up in the news feed (Image 17).



Images 16-18. *The Filming Screen, the Newsfeeds, and the My History Screen.*

The newsfeeds can be also accessed from the ticker at the bottom of the home screen (Image 7). The users' successes or failures in focusing will be automatically posted as textual notifications in the newsfeeds, and if they have failed, a photograph or a video will be posted along with the notification (e.g., "John failed to focus and had to sing in public"). The newsfeeds allow people to "Like" or "Comment".

Users can also view their hours Phocused (Image 18), which can be accessed either through Settings (Image 19) by clicking the "My History" button. Clicking the "Scoreboard" button at the bottom leads to the Scoreboard screen (Image 20).



Images 19-20. *The Settings Screen and the Scoreboard.*

To go back to the home screen anywhere in the app, the user simply has to click the Phocus logo at the top.

V. Methods

To test our prototype we went to Philz Coffee in Palo Alto and looked for customers to test the initial design of our app. We chose Philz Coffee since we wanted to target younger adults. To compensate the participants for their time we offered to pay for their coffee.

Initially, a team member approached people and asked them whether they would like to participate in the experiment. Once a person agreed to participate, we sit down next to a table in order to make the user experience as close to everyday use of a mobile phone. Three other teammates would then join the table; two of them were to record any comments and feedback from the user and the other one was responsible for holding all the paper images of the application and would replace the card in front of the user depending on the button clicked.

Things we were looking for:

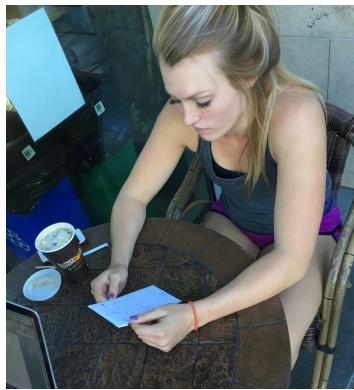
- 1) We were interested in seeing whether the user would get confused by any of the screens on our app. Furthermore, we wanted to distinguish confusion as a result of poor UI design (e.g. back button is located in a non-intuitive location) versus confusion about the functionality of different parts (e.g. what is the slide button used for?)
- 2) We wanted to look closely for their facial expressions in order to see whether they were frustrated / entertained / annoyed as they went through the different screens. One person was tasked to look for these facial expressions while the other focused on verbal feedback.

Participants:

- 1) Participant 1 is 23 years old. She moved to the U.S. a year ago and she is currently working as a full time babysitter for two kids. For this interview, Chuan is the computer, Abraham is the facilitator, and Ben and Luke are observers.
- 2) Participant 2 is a Sophomore at Menlo College; she is 19 years old. For this interview, Chuan is the computer, Luke is the facilitator, and Ben and Abraham are observers.
- 3) Participant 3 is the CEO of a startup based in New York, and he is in Palo Alto for a few days for fundraising; he is 26. For this interview, Chuan is the computer, Luke is the facilitator, and Ben and Abraham are observers.



Participant 1



Participant 2



Participant 3

VI. Results

Our application design is generally intuitive: even for our most complicated tasks such as creating a group Phocus session and recording others who have failed to focus, our interviewees functioned well. However, there were some design details to improve:

- Participants 1 and 2 thought the Friends Selection Screen (Image 8) was confusing. The “Nearby” feature on the right, which shows which friend is nearby, is not straightforward because the interviewees thought the “✓” symbol means the friends who have been selected for the group rather than friends who are nearby.
- All participants had problems with the Phocus Settings screen (Image 9-10). They did not know what to do with the Punishment Scale. Some were confused whether the big Phocus button was actually a button because it occupied a large part of the screen. Participant 1 mentioned that the white space below the Phocus button is confusing.
- Participant 1 also mentioned that she might choose not to do her challenge if she has failed to focus.
- Participant 2 said she would be afraid that some of the tasks would be irrelevant for certain users and, therefore, some users would not want to use the app anymore in case they were assigned tasks they didn’t like.
- When creating a group phocus session, all participants found it confusing to first pick the group (friends that will join the session), and then customize the phocus session’s time length and punishment scale.
- Participant 3 smiled and was very pleased with our idea of giving 1 minute for the user to cancel the focus session.
- Participant 3 clicked the “back” button 3 times to get back to the home screen
- Participant 3 laughed about having an “intensity” meter for the challenge punishments.
- Participant 1 expressed that she really liked the idea of publishing people’s punishments online.
- Participant 3 was very excited about the big “Phocus” button.
- It might have been a good idea to add color, or at least more contrast to our prototype in order to make more clear the functions of each button and slider.
- Results:

	most confusing feature	most confusing screen	most enjoyable screen
Participant 1	Punishment Scale	Home Screen (Image 7)	Dare Screen (Image 15)
Participant 2	Punishment Scale	Phocus Settings Screen (Image 9-10)	Dare Screen (Image 15)
Participant 3	Punishment Scale	Phocus Settings Screen (Image 9-10)	Session Summary Screen (Image 12)
Most common	Punishment Scale	Phocus Settings Screen (Image 9-10)	Dare Screen

VII. Discussions

- Given the feedbacks, we obviously need to re-make the Phocus Settings Screen (Image 9-10). We want to make the Phocus button more intuitive by shading it orange. We also want to make the Punishment Scale more intuitive by adding explanatory icons.
- **Pre-Phocus recording:** We believe that in a Solo focus setting, it is likely that a user will choose to not do their challenge after failing. To address this problem, we can change our design in solo sessions by recording the challenge (either a video or a photograph) before starting the session. The material will be automatically posted if the user fails to focus.
- **Dare Center:** In response to Participant 2's concern with impersonal "dare" challenge, we came up with a new functionality--"Dare Center". "Dare center" will allow users to add tasks to his/her friends' task list. When a friend is using Phocus, the task he/she will get in case of failure would be suggested by his/her friends rather than the app developer. Participant 2 liked the idea and claimed that it would provide a very funny way to get her friends to perform tasks they wouldn't do otherwise (e.g. exercise, attend a concert, etc.)
- **Creative "Dare" Prompt:** In response to Participants 1 and 2's concerns with not posting challenges, we came up with a more entertaining way to phrase our "dare". Instead of saying "Post a video of you singing a Justin Bieber song", we might give a creativity-stimulating prompt: "Post a video of you dancing as if you were at a Justin Bieber concert".
- **Flow change:** Since all participants found it confusing to first pick the group (Image 8), and then customize the Phocus session's duration and Punishment Scale (Images 9-10), we have decided to reverse the order of those two screens. In our new design, we want users to first customize the Phocus session, and then invite their friends to join. We think this makes sense because the focus of the app is to create Phocus sessions, while the people who join the session is an attribute of the session. Thus, it makes sense to first create the "session" and then add its attribute of "who's joining".
- **Home Button:** as shown by Participant 3, with our current design users need to click "back" many times to get to the Home screen. We agree in that a user should be able to navigate across the app as easily as possible, so we decided that for our Medium-fi design, we will fix this issue by adding a home button so that users can easily go back to Home.

VIII. Appendices

Consent form:

Consent Form

The Phocus 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 Phocus. 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 (Ben Limonchik, Abraham Starosta, Luke DeWild, Chuan Xu) 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 Phocus 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 _____

Participant Number _____

Date _____

Signature _____

Witness name _____

Witness signature _____

Participant 1:

took a few seconds to choose the group button
question: "what si solo option?"

What is this list? (she is looking at the friend list)
Pressed add list.

Oh this is how I choose how long to play (made sense)

Q: what is this scale? (the scale of difficulty of the task) She claimed that the sliding bar in the middle of the screen did not make sense

Cancel screens: She understood right away that there is a time limit to cancel

Accept.

Failed screen: she decided to write about it.

Q: After I am suppose to focus for 1:30 and fail what happens does it take me back to the home screen or I am I resuming the process?

The only thing I am wondering about is:

What if to start using the app you must have a ridiculous / awkward photo of yours and it is stored. If you fail it will be posted. That makes sure that people would not just click fail , take a random picture just to get across the locked screen.

Chuan: was a confusing interface?

comments by Chuan:

Switch the scale of difficulty to a slider (currently the slider is confusing)

The text option for uploading doesn't make any sense.

'Accept' page. What happens if she doesn't want to accept? what other ways to switch a screen does she have?

The button distinction between a group and solo is not very intuitive.

Participant 2:

Pressing Group:

So I am clicking on Luke.

I am kind of confused is this an Hour and ten minutes? I am not sure what the hour and minutes mean here? Luke showed her the slider and it made a little more sense.

She pressed Phocus (on the screen with the slider).

She successfully Phocused for an hour now she slides the bar to accept the challenge.

She fails and gets a challenge. She presses and uploads a video of a silly dance.

Second task: Solo Focus

She pressed the back button and she is in home screen.

She is in the settings screen. Set to 3:20min. Presses Phocus.

She locks the phone and successfully completes her task.

Smile!

Make the Phocus logo the home button.

Nearby signs not clear, redesign necessary.

Third task:

Already done

Post interview:

- She found the time settings a little confusing.
- What is the purpose of the slider (it indicates the difficulty)
- Q: was there a reason you didn't press create group?

A: she didn't even think about it.

Participant 3:

Very tech savvy man, he knows a lot about design since he is the CEO of his own startup and is very knowledgeable

He liked seeing nearby friends

He thinks checkmarks (to invite friends to a phocus session) should be radio buttons

He liked punishment scale slider (he was pretty excited about that)

He liked the big phocus button since that's the main action item for such screen

He liked having 1 minute to cancel the phocus session

He wasn't sure what the little camera in the bottom was "is it instagram?"

He really liked the scoreboard showing his progress compared to his friends

Word Count: 2315