

Report on Interactive Prototype

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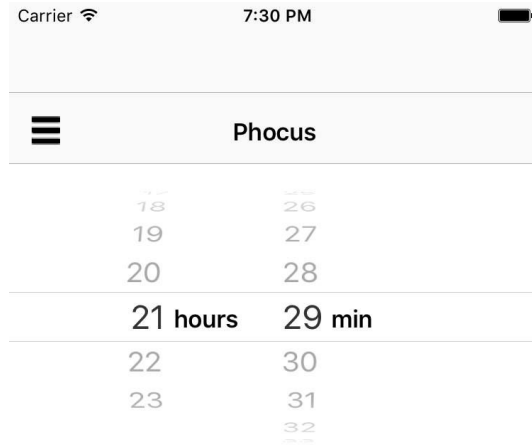


“Time Well Spent”

I. Problem and Solution Overview

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, scrolls 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 when they focusing individually or as a group. 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. Our value proposition is *“Time Well Spent.”*

Below is the main interface of our app:



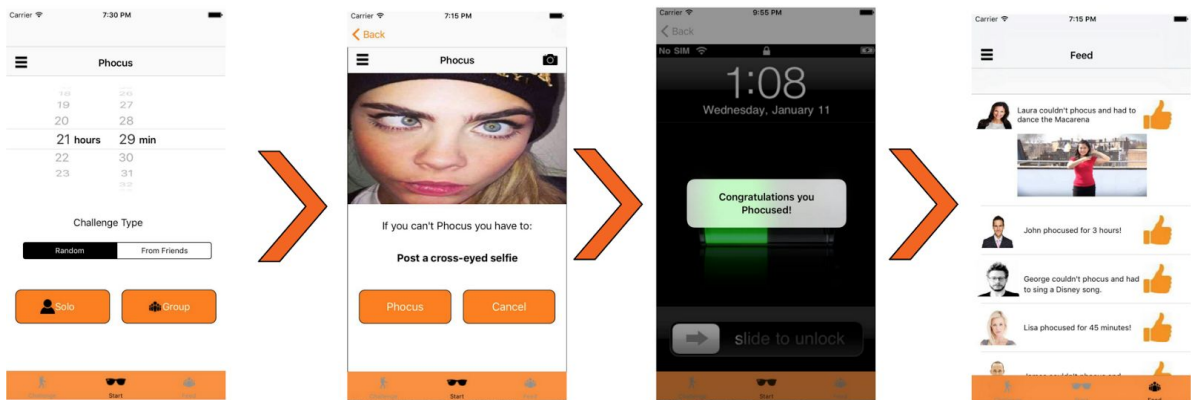
Challenge Type



II. Tasks & Final Interface Scenarios

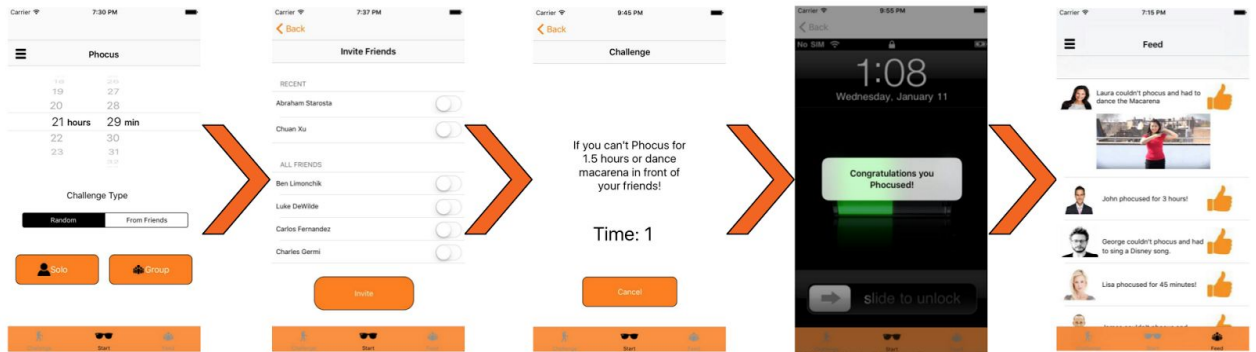
Simple Task: An individual completes a Phocus session

Rationale: When we are alone, we often want to focus on what we are doing and prevent distraction by our phones, hence this task.



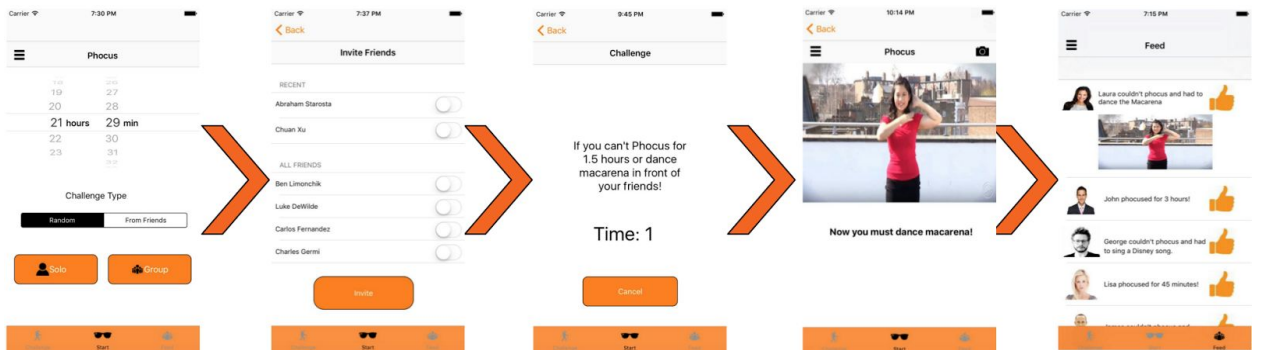
Medium Task: An individual creates a group Phocus session

Rationale: When we are together for some purpose, we often want to focus on what we are doing (e.g., a dinner, a meeting, and etc.) and prevent distraction by our phones, hence this task.



Complex Task: An individual has failed to focus and has to post something in the Feed

Rationale: If, as a result of someone's failure to focus, he/she has to post something in the Feed, this will serve as an incentive for focusing. This feature also enables us to socialize focusing, thereby making it more fun.

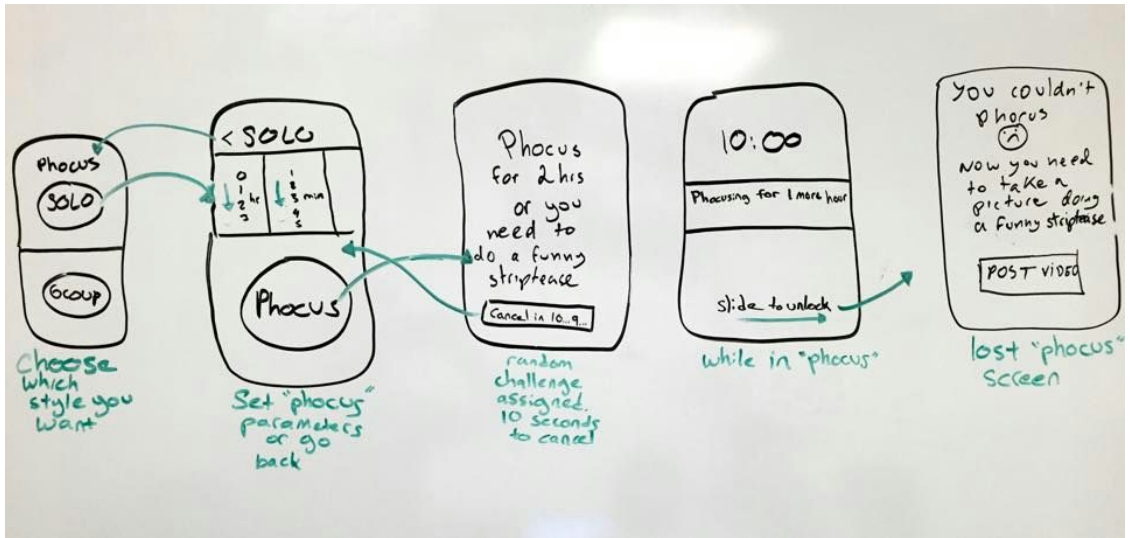


III. Design Evolution

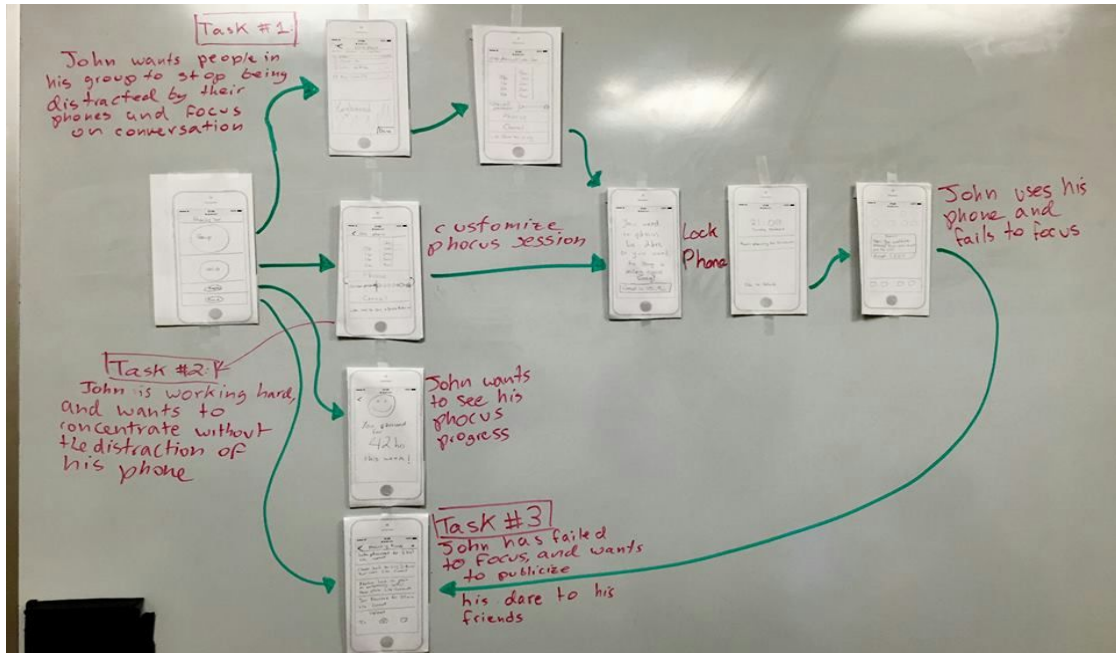
Initial Sketches:



UI Sketch:



Initial Task Flows & Low-Fi Prototype:

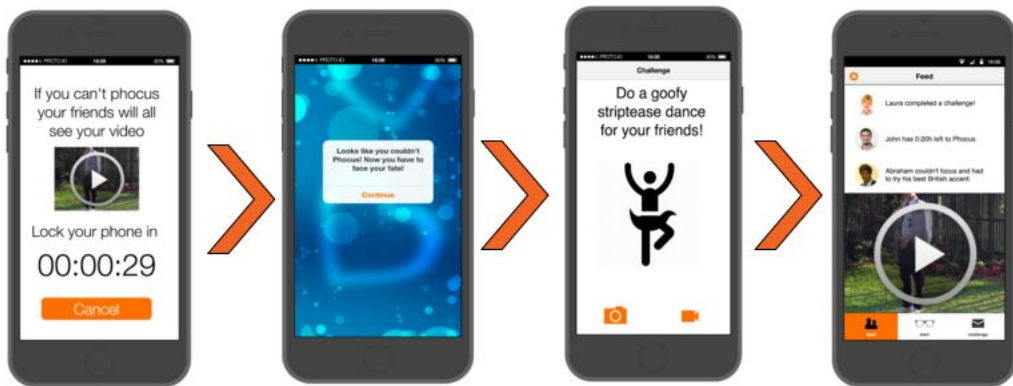
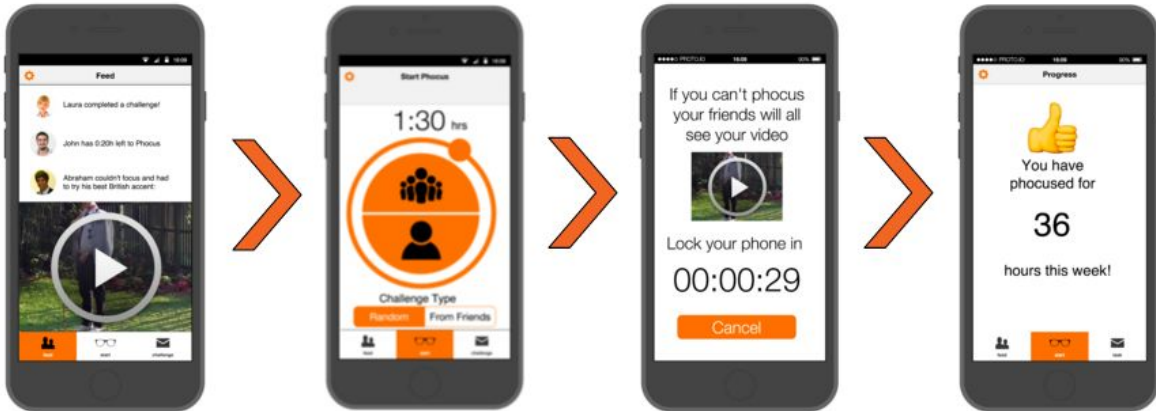


Medium-Fi Prototypes (from the Simple Task to the Complex Task):

For the medium-fi prototypes, we implemented some innovative design features, such as the wheel on the Home screen. We also incorporated some changes on our low-fi prototype based on our user-testing. These changes are summarized by the following:

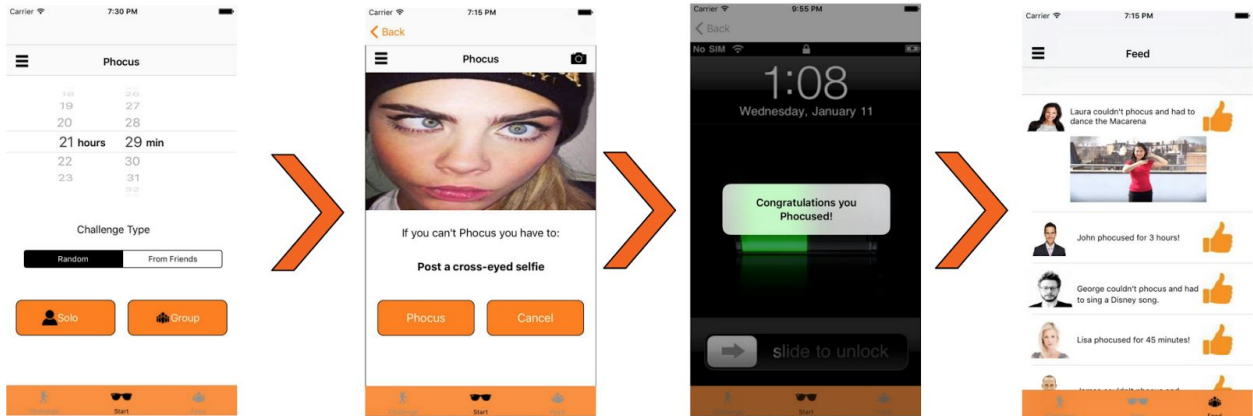
- **Pre-Phocus recording:** We believe that in a Solo focus setting, it is likely that a user will choose to not do their challenge after failing. To address this problem, we can change our design in solo sessions by recording the challenge (either a video or a photograph) before starting the session. The material will be automatically posted if the user fails to focus.
- **Taskflow change:** Since all participants found it confusing to first pick the group (Image 8 in the photo below), 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.

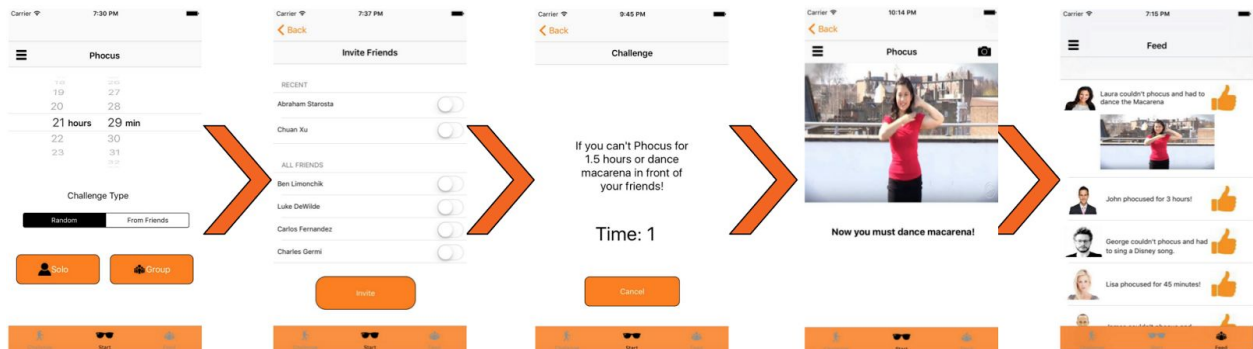


High-fi Prototypes (from the Simple Task to the Complex Task):

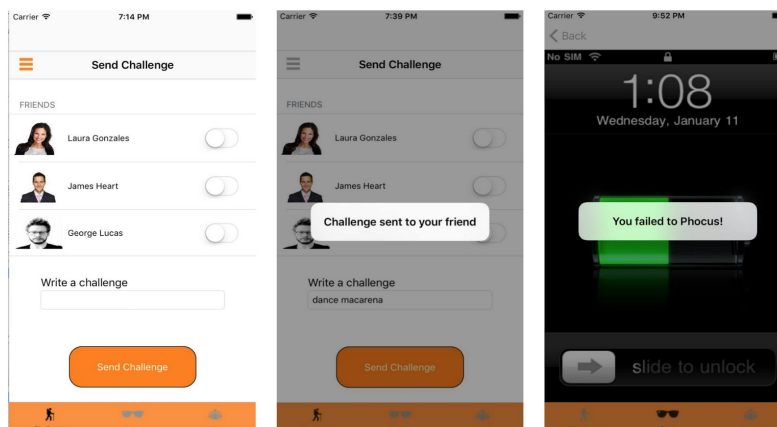
Task One: An individual completes a Phocus session:



Task Two/Three: An individual creates a group Phocus session, he or she fails and posts a challenge to the Feed:



Other screens: Send Challenge Screens, Phocus failure screen:



IV. Major Usability Problems Addressed

[H2-4 Consistency and standards] [Severity: 5] [Found by: A] It's not intuitive how to set the time. If you hadn't told us in class to use the circle with the dot on it as a wheel, I likely never would have turned it. On the iOS platform, users are used to setting the time by using a certain kind of time selection (see the Timer screen of the default Clock app). Switch to a more conventional time setting method.

- Switched the home screen to reflect the standard iPhone timer for session length setting (see home screen image above).

[H2-1 Visibility of system status] [Severity: 4] [Found by: A, C] After clicking on the "Group" button, we're brought to some screen with a checklist. It's not obvious what we're doing here. Keep the user informed about what's going on by providing a title for the screen.

- Labeled the new group invite screen "Invite Friends", changed the button on the bottom to say "Invite".

[H2-5 Error prevention] [Severity: 4] [Found by: A, C] On the group invite screen, no one can be invited, but one can still click "Phocus." Either display some kind of warning if no one is invited or don't allow the button to be clicked until at least one other person is invited.

- Tried to fix this but we ultimately unable to change this feature in the high-fi prototype.

[H2-3 User control and freedom] [Severity: 5] [Found by: A, B, C] There's no back button once you click on the group challenge button from the home screen. There is an option to cancel in the next screen if they click Phocus, but back button functionality should be supported throughout. If a user is trying to do the first task and focus on their own work but accidentally clicked on the group button, they should be able to go back. Support undo by adding a back button.

- Added back or cancel buttons to every appropriate place in the app.

[H2-1 Visibility of system status] [Severity: 5] [Found by: A, B, D] Whenever you click on settings, the currently selected tab changes. This is confusing to the user. Keep the same tab selected when the settings button is clicked.

- A problem with proto.io. We were unable to implement a settings feature, only suggesting it with the three bar icon at the top left, which among other things would include a settings tab. It was not part of our task and we did not have time to implement it.

[H2-2 Match between system and the real world] [Severity: 5] [Found by: A, B, C, D] Clicking the "About" button should not bring you to the scoreboard. This is illogical. Make the "About" button go to an "About" screen.

- Not part of our tasks, did not have anything in the “more” tab so the about screen was not implemented.

[H2-3 User control and freedom] [Severity: 5] [Found by: A, B, C, D] There’s no back button once you click on the single challenge button from the home screen. The problem is exacerbated by the fact that there are also no tabs to click on. I know you may have implemented this in order to force users to do their dare as part of your third task, but what if someone accidentally clicks on the single user button? They should have some way of cancelling without taking a photo or video of themselves. Support undo by adding a back button.

- Added back or cancel buttons to every appropriate place in the app.

[H2-2 Match between system and the real world] [Severity: 5] [Found by: A, B, C] Clicking the “Cancel” button on the single lock screen signals that the user has lost phocus. This is not what “Cancel” normally means. Make the “Cancel” button cancel the action.

- The cancel button now brings the user to the beginning instead of announcing that they couldn’t Phocus.

[H2-4 Consistency and standards] [Severity: 5] [Found by: A, C, D] The “Cancel” button on the group lock screen brings the user back, but the same button on the single lock screen signals that the user has lost phocus. Make the two screens consistent by making the button cancel on both screens.

- Addressed in the issue above.

[H2-2 Match between system and the real world] [Severity: 5] [Found by: A, B, C, D] It doesn’t make sense to have “Scoreboard,” “Progress Screen,” “Sign Out,” and “About” all under “Settings.” This information does not appear in a natural logical order. To fix this problem, either create a “More” tab with this information and put actual settings in the “Settings” screen.

- Created a more tab, but did not have time to implement the features.

[H2-7 Flexibility and efficiency of use] [Severity: 4] [Found by: A, B] On the group invite screen, the checklist buttons are very small and hard to click. It’s inefficient to force the user to click on such a small button. This is especially problematic for someone with large fingers on a smaller touch screen. To fix this problem, make the entire row clickable. As a cool extra feature, it may also be helpful to pre-check people in a very close vicinity by using GPS.

- Added larger, standard iPhone on/off swipe buttons, we were unable to feasibly implement the GPS feature given our lack of iOS knowledge and time. In Xcode
- we also couldn’t tap into a specific phone’s GPS to make that feature possible.

[H2-2: Match Between the System and the Real World] [Severity: 4] [Found by: C] The interface requires users eyes to move in an unfamiliar pattern on the start screen because you set the time on the dial move to the bottom to select the challenge type

then press in the middle to progress. It is natural for us to read top to bottom or left to right. Break out tasks into three screens or segment the primary screen so tasks progress top to bottom or left to right. (i.e. Set time, select challenge type, select group or individual).

- Re-engineered the home screen to reflect a more natural visual progression, top to bottom (see home screen image above).

[H2-2: Match Between the System and the Real World] [Severity: 4] [Found by: C]

The interface uses the metaphor of a timer dial to set time, but does not carry out the metaphor in a way that is intuitive for a user to latch onto. Without reading documentation I would not understand that moving the circle on the dial would adjust the Phocus time. Make the metaphor of a time dial a bit stronger possibly by adding clock hash marks.

- Repeat, solved in the first issue.

[H2-4: Consistency and Standards] [Severity: 4] [Found by: C]

The interface has a call to action to Phocus for the group focus session, but for the individual focus session it goes straight to the phocus session screen. User may be confused by this mismatch. Have a phocus button to start both types of sessions.

[H2-5: Error Prevention] [Severity: 4] [Found by: A, B, C] The interface makes it difficult for a user to understand how to progress forward from the start screen. The user may not understand where to click to interact with the app, which may lead them to a page they do not want to go to. If the single person, and group clip art is the call to action for setting up your Phocus session use affordances of a real world button to make it clear clicking here will begin your session.

- Added more obvious buttons and labeled them to make the app's front page more intuitive.

[H2-8: Aesthetic and Minimalist Design] [Severity: 4] [Found by: C]

The interface does not allow you to filter your Feed. This may give users too much information or information that is irrelevant to them. Allow users to filter by people that are their friends, just their posts, everyone, etc. (Venmo is an example of a platform that does this filtering well.)

- The Feed would only be of a user's friends. Since the specifics of the Feed were not part of the tasks, it was not enough of a priority given the fact that we only had 3 people to do assignment 8.

[H2-7: Flexibility and Efficiency of Use] [Severity: 5] [Found by: C, D]

The interface hides stats and progress in a settings menu. Some expert users may prefer to see their personal stats or rankings opposed to social Feed. Checking how much the user has phocused for the week takes at least two clicks (first on Settings icon then on 'Progress Screen'). Fix: Allow users to identify what is important to them. Make the individual summary more easily accessible, possibly from the home screen. A

consistent top nav bar that slides down and then out of the way quickly to view one's score could work well, for example.

- We strongly disagreed that this could be considered a usability catastrophe. The scoreboard/stats functionality was not part of our tasks, and was an additional feature we added to the medium-fi prototype that we did not have the time to recreate in our high-fi prototype.

[H2-8: Aesthetic and Minimalist Design] [Severity: 4] [Found by: C] The interface requires the user to complete numerous tasks on the start screen, but does not provide strong cues as to which order they should be completed in. It may be overwhelming for the user to identify the information and functions that are relevant to the task he/she is trying to carry out. Either break three subtasks (setting time, picking challenge type, and identifying group or individual) into three screens of provide helpful cues as to which order these should be completed in.

- Addressed already, we re-engineered the home screen to function top down and provided visual cues as to how to set up a Phocus session.

[H2-5 Error Prevention] [Severity: 4] [Found by: D] After you've selected Phocus group members it is unclear what happens to the contacts selected once you press Phocus. Do they get an invite to join the Phocus group? Does the Phocus time start automatically, or does everyone have to join the group first? Fix: Using the term 'Invite to Phocus' may also be worth considering.

- We made the purpose of the screen more clear adding "Invite Friends" to the navigation bar and adding the text "Invite" to the button on the bottom of the screen. Since the task was to initiate a group Phocus session, we did not implement functionality to be invited to one, hence we did not address the first part of the issue.

[H2-2 Match Between System and the Real World] [Severity: 4] [Found by: D] The 'Continue' button on the page with the notification that reads, "Looks like you couldn't..." doesn't match the tone of the notification. This could be an opportunity to get the user excited (or anxious) about the challenge. Fix: Make language between notification and call to action consistent in tone.

- We eliminated that whole page

[H2-10: Help and Documentation] [Severity: 4] [Found by: B] It is a little unclear what the send a challenge page does. Do my friend or friends get this challenge immediately? What happens if a friend sends me a challenge? What if I send challenges that are too ridiculous to work? Some of the details of this are not clear to me as a user and a help or documentation button would be helpful to understand the details of this page's process.

- The feature was not part of our tasks so we did not spend time figuring out the full implementation, just provided the option on the front end that would be better explained if we were able to make it work.

V. **Prototype Implementation**

We built the program simply using Xcode. Xcode gave us far better control of the app in terms of aesthetics, and some back end logic, such as the time feature. It also made our app more dynamic and responsive. Coding in Swift for iOS proved to have a much steeper learning curve than Proto.io, so even as we have a finished high-fi prototype there are still many things we are not sure how to do. We also could not make the app actually interact with the phone itself (i.e. accessing a camera roll or connecting with Facebook to add real friends).

Our used two “Wizard of Oz” techniques. The first was the use of fake user content that would be uploaded in the event of a failure to focus since we were unable to access a user’s camera roll on Xcode. The second was the actual failure to Phocus itself. Since Xcode cannot allow the user to exit the app then track that they have come back in, let alone the period of time they left the app for, we assumed any click of the screen was a failure to complete the Phocus session.

Our hard-coded elements were the friends list, the Feed content, and the challenges, each of which would ordinarily be dependent on the user’s friends and self-uploaded content. We also were unable to use the user’s selected time in our challenge dialogues, which we would fix with more time for back-end support.

We were also hampered by the withdrawal of a valuable team member in the middle of our process, which meant that we were left with more work between the three of us than was feasible which led us to not implementing some of the features we would have otherwise had time to delve into more deeply. We also encountered a bug that didn’t allow us to add a task bar to our final feed screen and wouldn’t allow us to take it away from another screen.

In the future we would like to add back-end support, add settings, statistics, and social media support/connectivity.

VI. **Summary**

Developing Phocus has allowed us to explore each phase of the user interface design process. In our discovery and needfinding phase, we spoke

with individuals who related to behavioral change in vastly different ways. A common thread between many of them was a difficulty focusing on the things that were important to them. Our low-fi prototyping stage gave us a chance to test feedback on the solutions we developed for our “point of view” and “how might we” questions. We sketched out our initial design intuitions and got valuable feedback on the implementation of our ideas. We refined these ideas more specifically in our medium-fi prototype. Working out color choices, aesthetics and iterating on the contributors of our testers. Finally, after feedback from our heuristic evaluators, we took to Xcode to design the real thing. We are very excited about the prospects of Phocus and thoroughly enjoyed the design process!