

Hiya App Onboarding Usability Testing

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Table of Contents

Executive Summary	3
Performance	3
Finding & Recommendations Overview	3
Study Objective	4
Method	4
Session Flow	4
Participants	5
Findings & Recommendations	5
What Users Like	5
SUS Scale	6
Severity Scale	7
Finding 1: Users Don't Really Read The Instructions Because They Look Too Wordy	7
Finding 2: Even When Users Try To Read, The Instructions Are Confusing	8
Finding 3: Users Don't Understand App Features And Are Concerned About Reliability	13
Finding 4: Participants Don't Know If Task Is Completed Or If It's Functioning	14
Finding 5: Users Complained About Having Too Many Steps	14
Finding 6: Too Much Back & Forth Between Settings And The App	15
Finding 7: Users Don't Want To Give Access Due To Privacy Concerns	15
Next Steps	16
Appendix	17

Executive Summary

Performance

On average, participants spent ~3-5 minutes going through the entire onboarding process (from the “Get Started” screen to the “Activation Complete” screen) which may have been longer than usual as participants were instructed to verbalize their thoughts during the testing sessions.

Out of the eight participants, three did not successfully activate one or more settings (Silence Unknown Callers, Full Incoming Screen Calls) during the onboarding process. Among these three, one participant failed to activate both settings. However, all three participants experienced various challenges with the Full Incoming Screen Calls setting, which resulted in unintentional activation failures.

Finding & Recommendations Overview

Overall, although some users thought the onboarding process was fast and straightforward, the System Usability Scale (SUS) score across all eight participants averaged 61.6 for the current onboarding process, which falls below the industry average of 68, indicating an opportunity for further improvement. Our usability research has uncovered seven areas of improvement for the Hiya Mobile onboarding process with severity ratings ranging from 2-4 (with 4 being the most severe). Below is a list of the top five major findings with a severity rating of 3 and above.

Major Findings	Recommendations
Users don't really read the instructions because they look too wordy. (Severity 4)	Use concise instructions and add more visual cues to keep the reading interesting.
Even when users try to read, the instructions are confusing. (Severity 4)	Show only the necessary information users need to finish the onboarding process with clear and precise phrasing and visual cues.
Users don't understand app features and are concerned about reliability. (Severity 4)	Provide real-life scenarios and visual aids to help users understand with confidence how the system works and what will happen for the caller and recipient of a screened/forwarded call.
Users don't know if a task is completed or if it's functioning. (Severity 4)	Present immediate feedback and error messages to users, as well as shortcuts to resolve the error.
There was too much back & forth between settings and the app. (Severity 3)	Reduce the need for switching between iPhone settings and the app.

Study Objective

Our team conducted a usability study on the Hiya Mobile app's onboarding experience to identify and address critical usability issues. We also gathered attitudinal feedback from the participants towards the onboarding process. The objectives are listed below.

The main purposes of this usability study are:

1. To assess the overall ease of use and usability of the onboarding process of the Hiya app.
2. To assess user satisfaction with the onboarding process.
3. To assess users' perceived trustworthiness of the Hiya app based on the onboarding experience.
4. To identify obstacles to completing key onboarding tasks.

To achieve those purposes, our research questions are:

1. How easily do users go through the onboarding process?
2. How clearly do users understand the onboarding instructions?
3. How satisfied do users feel about the onboarding process?
4. How successful is the onboarding process in building trust among users toward the app?
5. What is the level of understanding users have toward the app features after completing the onboarding process?
6. What obstacles prevent users from completing the onboarding process?

Method

Our team conducted eight in-person usability testing sessions with the participants. In the sessions, the participants were asked to think aloud while going through the onboarding process (participants vocalizing their intentions, expectations, and reactions as they perform the task). We also video-recorded the hand movements and interviews with the users to gather data on their interactions and thoughts towards the Hiya app.

Session Flow

All sessions were conducted in person, with one participant, one moderator, and one note-taker for each session. Each session lasted for about 40 minutes and include three sub-sessions:

1. Onboarding Process Experience (20 minutes)
The participant fills out the consent form and then experiences the Hiya app onboarding process on their own phone. The moderator sits in front of the participant and guides them through the study protocol. The moderator may only provide hints if necessary. The

note-taker sits next to the participant and takes notes on their overall performance. This session is recorded with two cameras.

2. After-Task Questionnaire (5 minutes)

Once the moderator and note-taker exit the room, all cameras stop recording. The participant completes a short questionnaire evaluating their perceived ease of use, satisfaction, and understanding of the onboarding process.

3. Interview (15 minutes)

The moderator asks the participant about their onboarding experience. The note-taker takes notes on the participant's responses. After the interview, note-takers also document the participant's phone type, iOS system version, and mobile carrier. This session is recorded with one camera.

Participants

In this study, a total number of eight participants were recruited from online postings; a group of participants representing varying levels of technological capacities and varying degrees of experience with call screening tools. Based on discussions with the Hiya team, we decided to conduct the study on iOS users with Verizon, AT&T, or T-mobile carriers.

All eight participants dislike spam calls. Six out of eight participants had never used call screening tools before (other than iPhone's default screening), one of the other two participants (P5) was a Verizon call screener user.

All participants met the following qualifications:

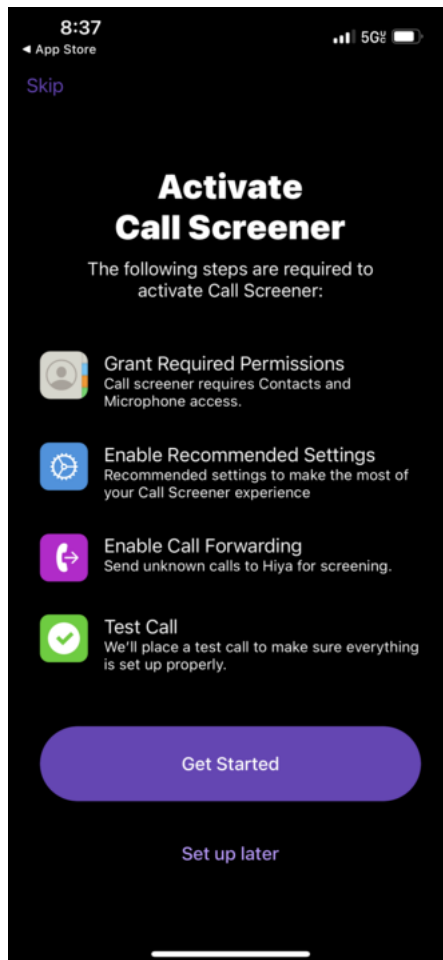
- iOS user, have a US-based number
- Device only has one phone line
- Mobile carrier is Verizon, AT&T, or T-mobile
- No prior experience with Hiya
- 18 years old or above
- Located in the Greater Seattle area
- Have adequate English proficiency to respond to the instructions

Findings & Recommendations

What Users Like

- Test call
 - Helps users to ensure that the app is working correctly and that they are familiar with how it works before making any commitments.
- UI and the design style of the button and icon

- Similar to the design style of the iOS system

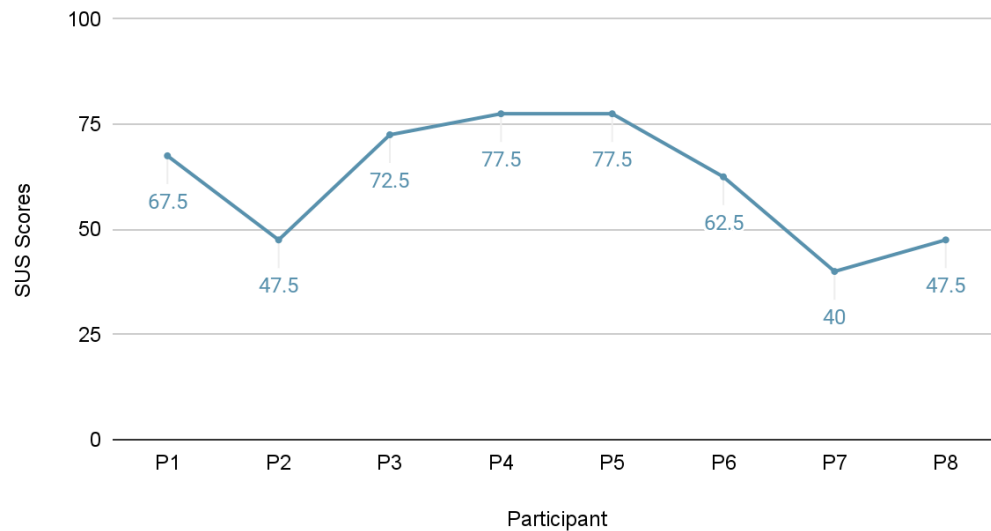


- 3-day free trial
 - Giving users the opportunity to test out the app and see if it meets their needs before committing to a subscription or purchase.

SUS Scale

The System Usability Scale (SUS) score across all eight participants averaged 61.6 for the current onboarding process. The highest score is 77.5, whereas the lowest score is 40.

SUS Scores



Severity Scale

Severity 0	Severity 1	Severity 2	Severity 3	Severity 4
I don't agree that this is a usability problem at all	Cosmetic problem only: need not be fixed unless extra time is available on project	Minor usability problem: fixing this should be given low priority	Major usability problem: important to fix, so should be given high priority	Usability catastrophe: imperative to fix this before product can be released

Finding 1: Users Don't Really Read The Instructions Because They Look Too Wordy

Severity: 4

Description:

- Users want to finish the whole onboarding process as quickly as possible, so they skip reading if they find the instructions to be too wordy.
- Wordy instructions increase the cognitive load for participants to memorize how to set up everything correctly, which makes the user think that the onboarding is difficult and the app might be hard to use, too.

Supportive Evidence:

- 5 out of the total 8 participants mentioned or were observed to skip instructions and had to go back to the instruction screens to confirm the set up information.
- 3 out of the total 8 participants explicitly mentioned that the onboarding process contained too many words and sentences.
- *“I was probably confused because I didn’t really read the instructions. Like when I have to go to my setting and change the full screen call, I didn’t really read the instructions because I was trying to get it done fast.” - P8*
- *“Level of understanding of app features are not high, wasn’t paying too much attention with all the wording...” - P7*

Recommendations:

- Use concise and straightforward instructions.
- Add more visual cues to keep the reading interesting.

Finding 2: Even When Users Try To Read, The Instructions Are Confusing

Severity: 4

Description:

- This is an issue that varies more from user to user.
- With affinity modeling, we identified five main categories of confusing instructions:
 - Inconsistent Phrasing
 - Imprecise Description
 - Misleading Visual Cue
 - Unnecessary Info
 - Unnecessary Flow

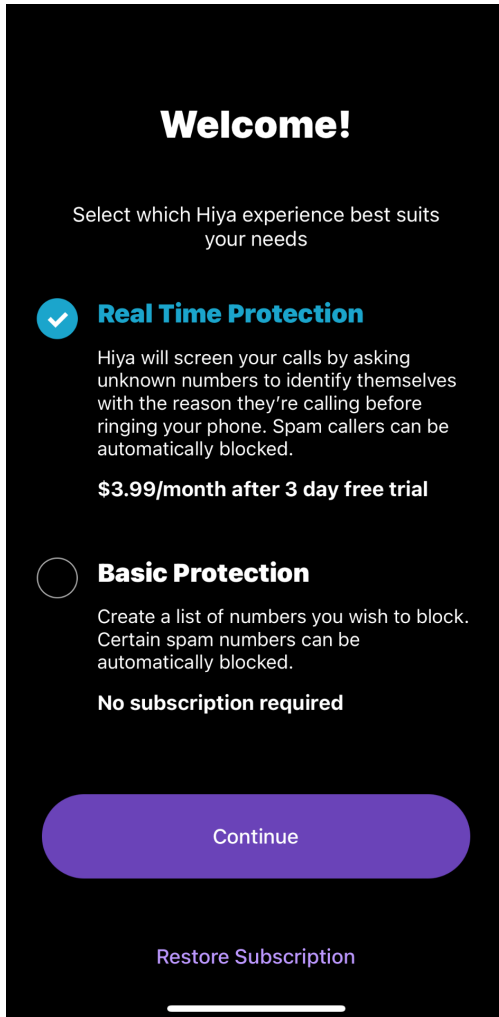
Overall Recommendation:

- Precisely show users the information they need to finish the onboarding with clear and precise phrasing and visual cues.

Inconsistent Phrasing

Supportive Evidence:

- Four participants were confused whether Real-Time Protection equals Premium Plan.



"Not sure if real-time is premium..." - P1

"Am I doing the upgraded plan?" - P8

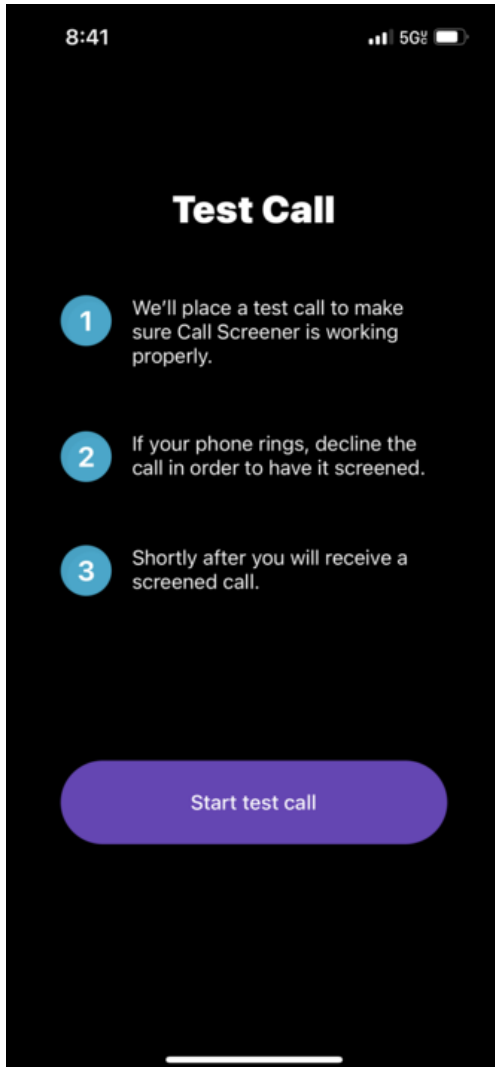
Specific Recommendation:

- Unify the phrasing throughout the app.

Imprecise Description

Supportive Evidence:

- Three participants mentioned that they did not know there were two calls (test call and screened call) and when to decline or answer.



(Declined the first call) "So that's what happens, you decline..." (Second call came) "Oh..and then answer or decline?" - P6

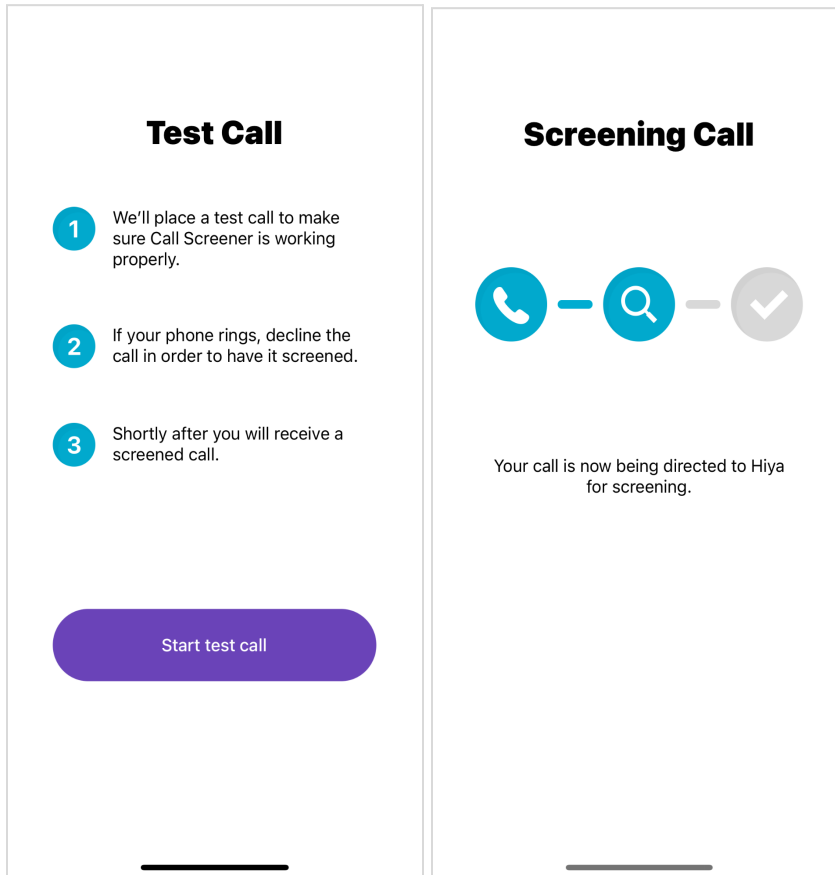
Specific Recommendation:

- Describe the process and what users need to do more clearly and comprehensively.

Misleading Visual Cue

Supportive Evidence:

- Two participants mentioned that viewing the process bar of the test call, they were not sure whether they needed to decline the call or the app would do it for them.



“The test call part was confusing. Not sure if i should decline the call or the app is doing it on itself.” - P3

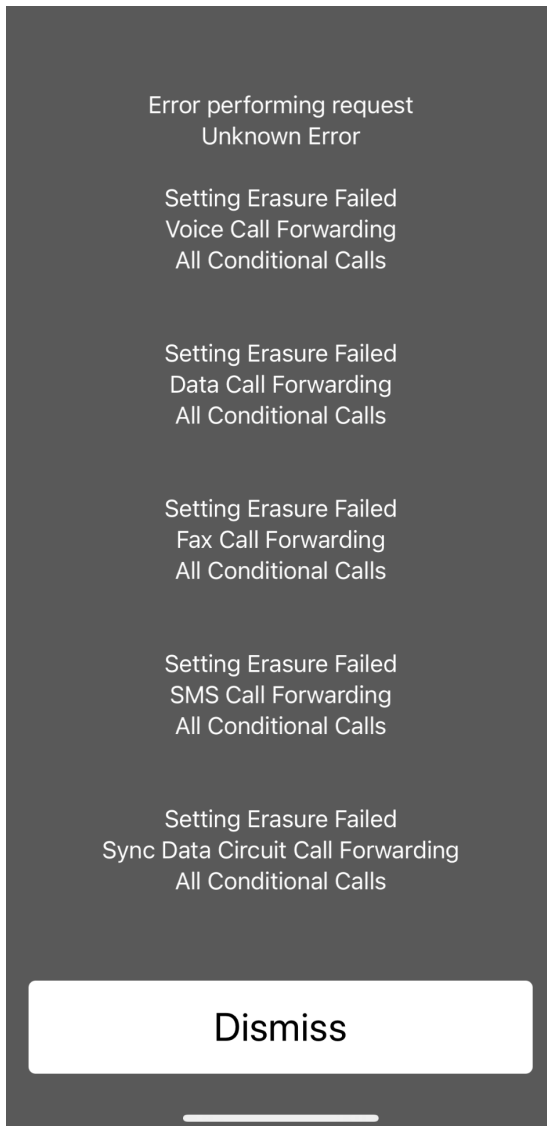
Specific Recommendation:

- Keep the implications of visual cues and word instructions consistent.

Unnecessary Info

Supportive Evidence:

- Two participants mentioned that the onboarding process showed interactions between the app and the back-end system which confused them.
- *“As a user, I don’t want to get involved in the interaction between the Hiya app and the system, but I had to confirm every step.” - P2*



“That page should be clear for people to understand...” - P4

Specific Recommendation:

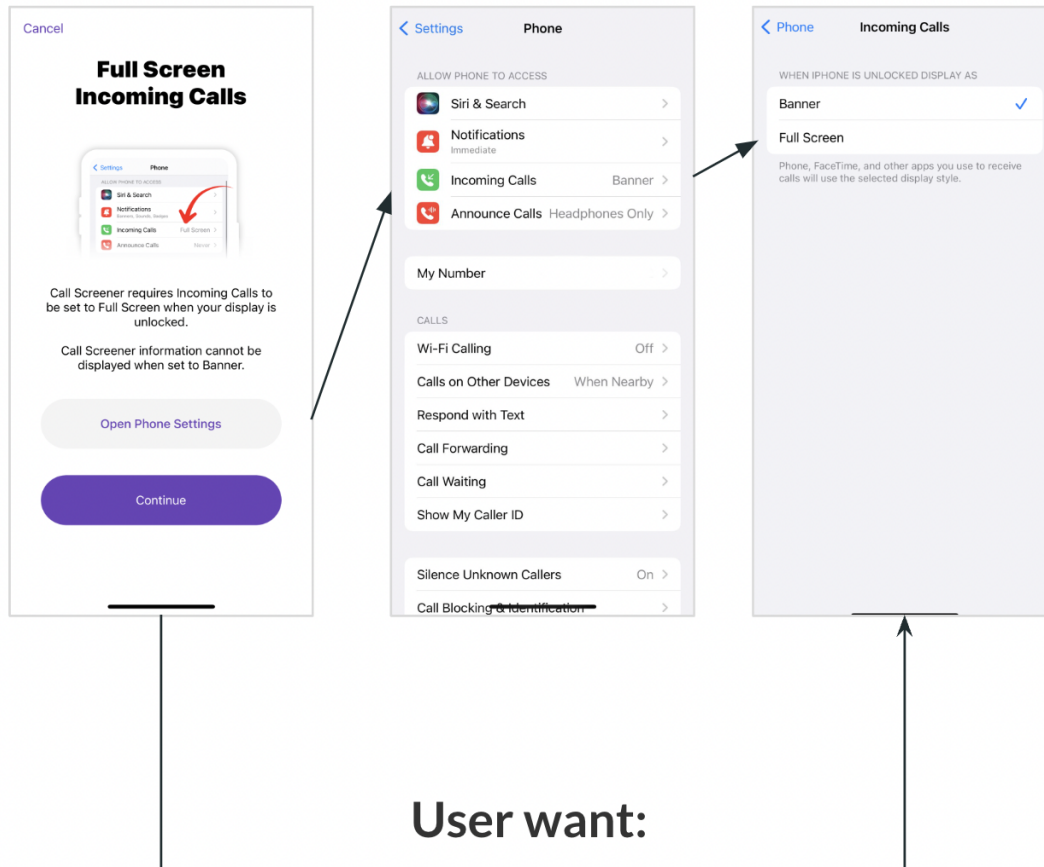
- Hide unnecessary interactions between the app and the system from users.

Unnecessary Flow

Supportive Evidence:

- One participant mentioned that it was confusing that the app did not land on the precise phone setting page.

Current:



Specific Recommendation:

- Always direct users to the precise phone setting page where they need to complete the step.

Finding 3: Users Don't Understand App Features And Are Concerned About Reliability

Severity: 4

Supportive evidence:

- Three participants were not clear on how the features work after the onboarding, resulting in doubts about Hiya's reliability.
- Two of them also didn't understand what would happen on the caller's end and the recipient's end in real life.

- *“I don’t think I will use this app after today’s session because I don’t really understand what this app is really for after the onboarding process.” - P8*
- *“What literally will happen if I get a phone call from an unknown number? I’m not clear.” - P1*

Recommendation:

- Provide real-life scenarios and visual aids to help users understand with confidence how the system works and what will happen for the caller and recipient of a screened/forwarded call.

Finding 4: Participants Don’t Know If Task Is Completed Or If It’s Functioning

Severity rating: 4

Supportive evidence:

- The app assumed that the task was completed when the participants switched from the iPhone setting back to the app without changing settings. This led to three participants not successfully activating full screen but thinking that they did. Two out of three were unsure if they did everything correctly and did not know how to test that.
- The system did not provide clear status, so the participant had to check on their own to make sure they did the steps correctly.
- *“Few screens where I would click through and be unaware, it’d almost skip that step. I wasn’t sure if I did that right. This makes me want to go back to my settings and look...” - P7*

Recommendation:

- The interface should provide immediate feedback and an error message to the users, along with shortcuts to resolve the error.

Finding 5: Users Complained About Having Too Many Steps

Severity rating: 2

Supportive evidence:

- Four participants complained about onboarding being a multi-step process or having too many steps.
- One of the four felt the duration was longer than they wanted.
- One of the four felt there were many unnecessary back-end interactions that required users’ involvement.
- *“There are too many steps!”- P8*

- *“Wish there were fewer steps in setting changes and the onboarding process was simpler.”- P5*

Recommendations:

- Use more visual cues as opposed to texts.
- Separate account creation and service activation to break up the process.
- Reduce users' involvement in back-end interactions.

Finding 6: Too Much Back & Forth Between Settings And The App

Severity rating: 3

Supportive evidence:

- Three participants struggled to return to the app as they mistakenly clicked on the wrong back button. This led to confusion, multiple clicks, or unintended failures to activate settings.
- One other participant thought there was too much switching back and forth between iPhone settings and the app. Too redundant.
- *“Where did the app go? Ughh doesn't get back to the app.” - P1*
- *“I hope they can condense everything into one single stage of steps. All this back and forth setting process, and I have to enable notification at the same time, so I don't have to deal with settings again.” - P2*

Recommendation:

- Reduce the need for switching between iPhone settings and the app.

Finding 7: Users Don't Want To Give Access Due To Privacy Concerns

Severity rating: 2

Supportive evidence:

- Four participants did not want to allow the microphone setting or give permission to the contact access. They did not know the purpose of granting permissions.
- One out of four said they did not trust the app because it screens every call. There is no clear proof it is not collecting any other information.
- *“I don't want to allow the app to access my contacts...but it looks like I have to...” - P8*

Recommendation:

- The app should emphasize its approach to privacy and how the data is used to address the participants' privacy concerns.

Next Steps

- Compare users across groups like cultures, tech savviness, and so on.
 - SUS scale results showed that one group of participants rated the usability of the onboarding process much higher than the average (77.5 compared to the average of 61.6), but one group of participants rated much lower (under 50). More research is needed to identify whether any characteristics of the users such as tech savviness matters to this gap. We can then run usability tests on more specific user groups to discover more detailed issues.
 - Hiya App is available across multiple countries. It's worthwhile to conduct research on whether the cultural differences in users impact their onboarding experience so that Hiya can provide more personalized and delightful versions.
- After redesigning based on the aforementioned recommendations, run another round of testing using the SUS scale to validate the impact of the above findings and corresponding design choices.

Appendix

Design Review

- [Preliminary Proposal](#)
- [Finding Presentation](#)

[Kick-Off Meeting Notes](#)

[Usability Study Plan](#)

Usability Test Kit

- [Screeners and Confirmation](#)
- [Study Protocol for Moderator](#)
 - [Activity Guide and Script](#)
 - [Logistics and Schedule](#)
- [Consent Form](#)
- [Instruction Form for Participant](#)
- [Observation Document for Note-Takers](#)
- [After-Task Questionnaire](#)
- [Post-Study Interview](#)

Data Analytics

- [Raw Data](#)
- [SUS Scale](#)
- [Final Finding Presentation](#)

[Hiya Mobile Onboarding Recording](#)