

Overview

The VolumeAR team performed usability testing to help find and fix bugs, design flaws, and gain greater insight into potential user interests and usecases. The following are some of the major takeaways:

100% of users tested rated the App's usability positively, with **80%** ranking it at least **4 out of 5**.

"Simple in terms of what it's meant to do but effective."

~ Anonymous Tester

"I like how simple it is, it's clean, easy to read."

~ Anonymous Tester

Despite what several users described as a "**steep learning curve**", users were eventually able to complete subsequent tasks in **less time** when compared with their initial attempt, **47%** less time for the second task and **29%** less time for the third.

Qualitative Results & Changes

Bugs, Issues, & Recommendations

- Welcome Text **overly wordy and dense**, included typos
- Scaling issues for welcome message on Ipad
- UI elements did not correctly scale for iPhones
- Entry-field text did not display correctly on devices using light mode
- **Unable to minimize keyboard on iPhones**
- Inputs for Cylinder in Inches did not update correctly
- **Shapes can only be placed on horizontal planes**

Implemented Changes

"Your app came in handy at my job. Needed to see what a box would look like in a space. Your app worked great to give us an idea."

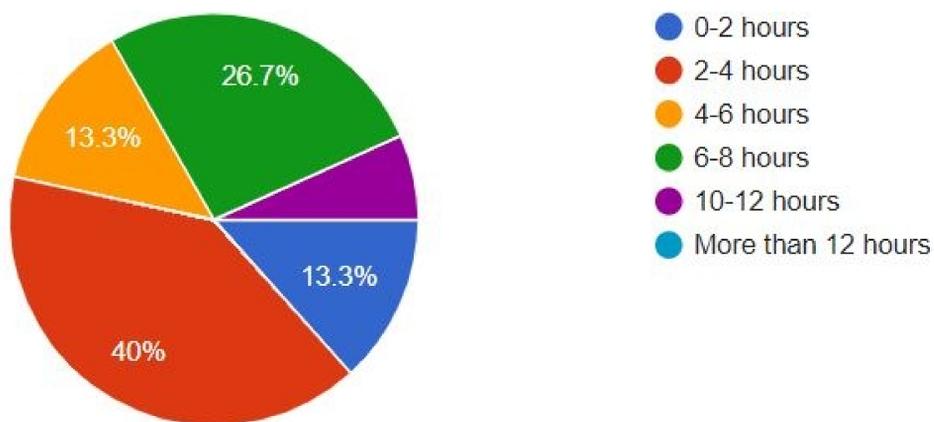
- Anonymous Tester

- **Condensed Instructions into shorter paragraphs with headers** to divide up the block of text and address scaling issues
- Corrected constraints so **all UI elements now scale automatically** across any display size
- Allowed automatic **font color switching** based on device settings
- Ensured all input text fields modify the intended axis for the selected shape

Quantitative Results

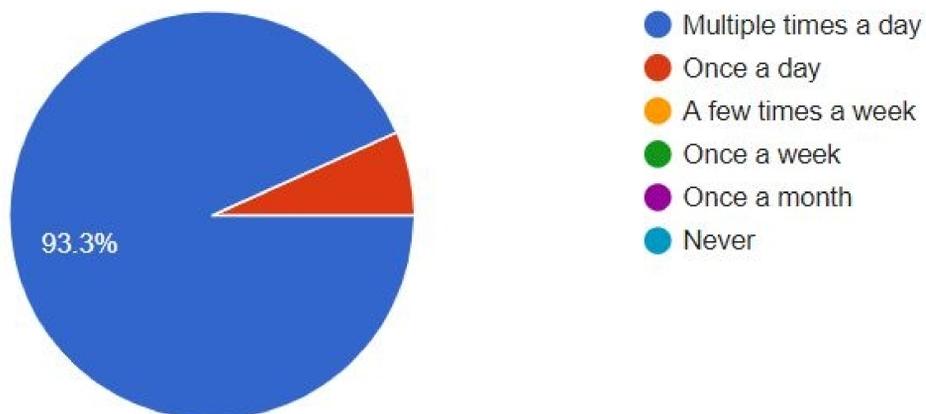
How much time do you typically spend using your phone per day?

15 responses



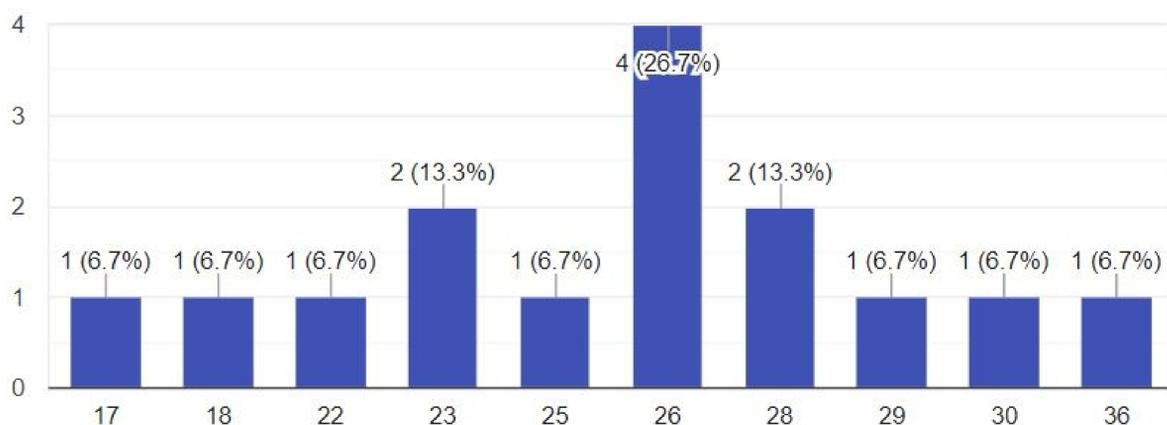
How often do you use third party apps (i.e. non default apps)

15 responses



What is your age?

15 responses



A majority of users tested are **active on their phones** for **multiple hours a day**, increasing the likelihood of using apps on their phone. A majority of users reported **using third party apps multiple times a day**, meaning this activity is not restricted to preinstalled apps on their device.

My target demographic is **users 18-35**. This covers those who have grown up almost their entire lives in a smartphone world and those who were young adults when the first iPhone launched. This provides a wide range of users who are all still most **familiar with smartphone use**.

Quantitative Results cont.

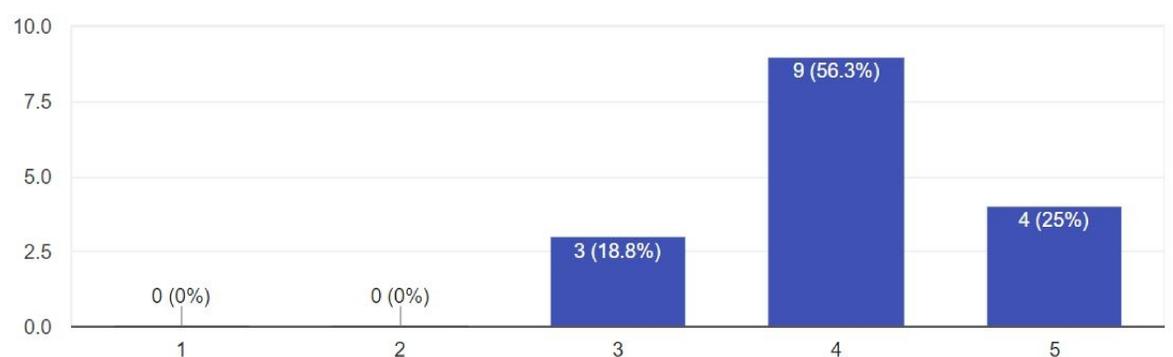
81.3% of users held a **positive opinion** on the apps' **Ease of Use**.

93.8% of users believed the app was **easy to navigate**.

63.5% of testers held a positive opinion of the apps design, though **only 6.3% held a negative opinion** on it.

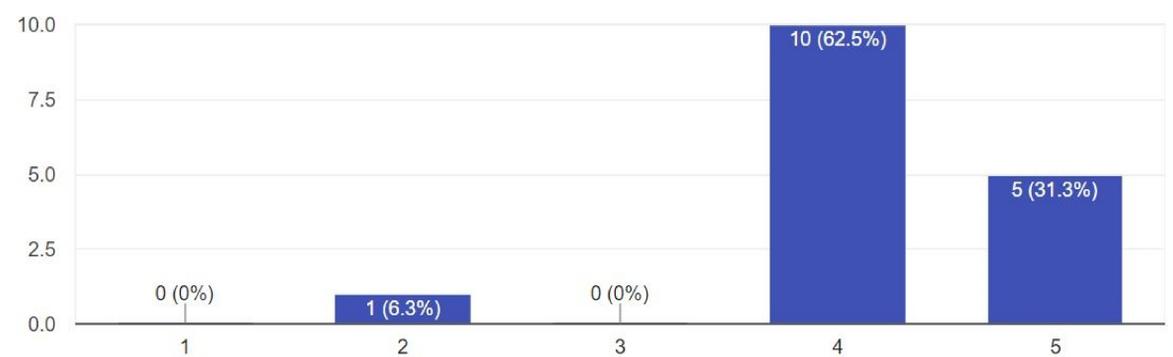
What is your overall opinion on how easy it was to use the app?

16 responses



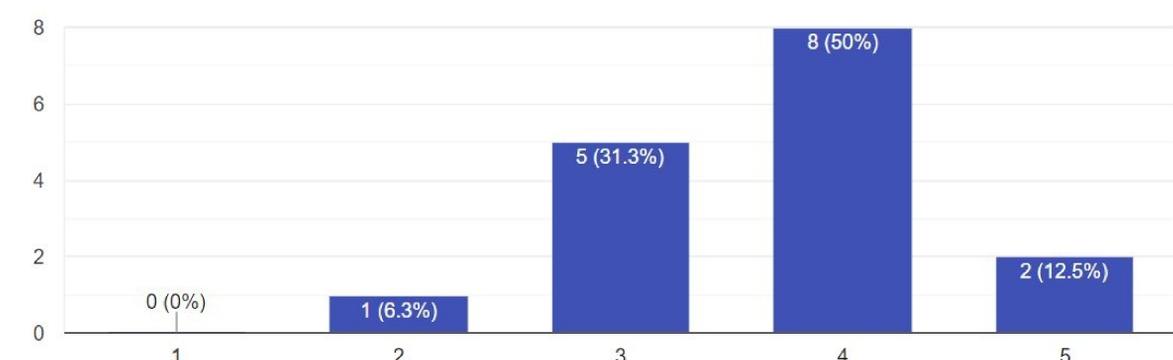
This App was easy to navigate and completing the exercises was simple.

16 responses



This App was well designed and is user friendly.

16 responses



Appendices

A: Testing Methodology

Sample:

Testers were all volunteers who responded to posts on social media asking for assistance "testing an app." Testers were all American, but come from all over the country. Testers included cis men, cis women, and trans women, all between the ages of 17 and 36.

Testing:

Each tester was provided with a copy of the app to use to attempt several hypothetical tasks when prompted by the study administrator. They were asked questions to gather their initial impressions of the app prior to using it and then asked to rate the difficulty of the tasks once they were all completed. All responses were recorded by the test administrator into a google form.

B: Limitations

Recruitment:

While the app was tested by a diverse sample of testers covering multiple identities and spanning the entirety of the target age demographic, all testers were at minimum acquaintances with the study administrator. While attempts were made to proceed as impartially as possible, some elements of bias in the quantitative results is most likely unavoidable.

Remote Testing:

Additionally, because of health and safety restrictions due to the ongoing pandemic, all tests were carried out remotely. While every effort to ensure that testing could continue as normal, this almost certainly impacted the ability of the study administrator to get all possible qualitative data out of a test.

Appendices cont.

C: Consent Form and Testing Questions

Can be found here: <https://forms.gle/Si3errhzDnFbHbjz9>

D: Testing Results

Can be found here: <https://tinyurl.com/y3bs2rtc>