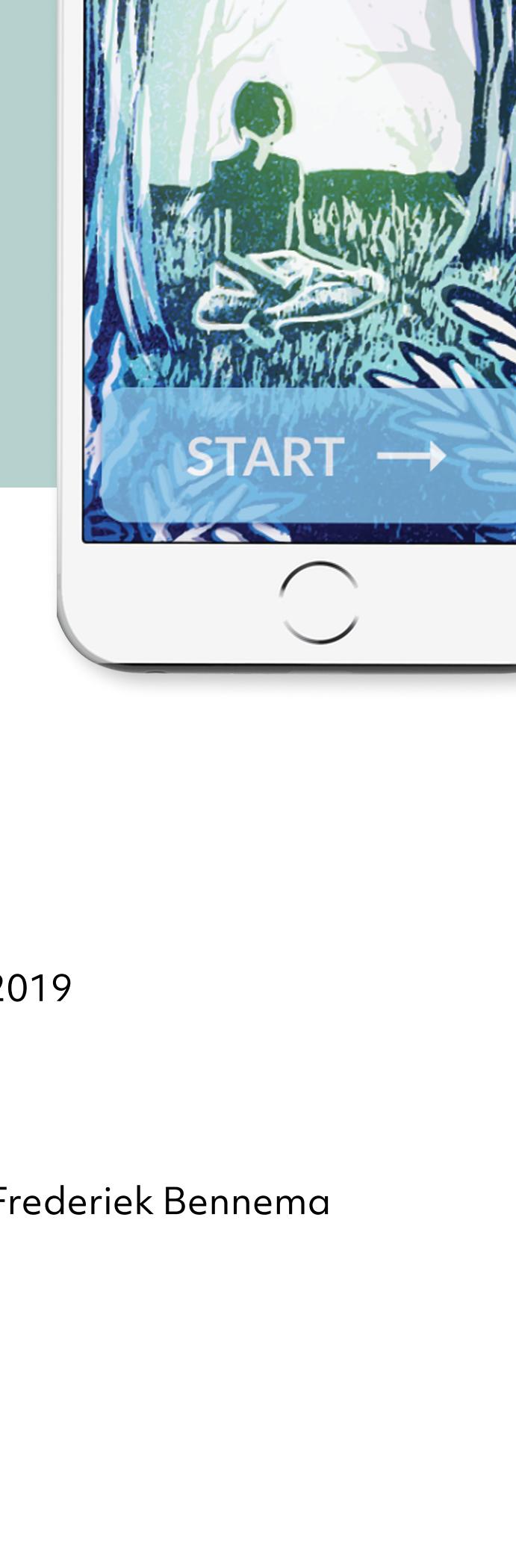


# Wanderings

A design research project on technology's effects on our mental health and the effectiveness of mindfulness apps.



## Final Product

A mindfulness app that guides the user through audiovisual relaxation exercises, and accompanying thesis containing research.

### B.A Thesis & Graduation Project

Minerva Art Academy, Groningen

### Project Duration:

February 2019- June 2019

### Topics Explored:

UI/UX design, design research, mindful technology

### Supervisors:

Marianne van Voorn, Frederiek Bennema

## The Gamification of Mental Health

While mobile technology offers us seemingly endless possibilities, for connecting with people around the world, managing our daily activities, and tracking our habits, however, it can become overwhelming when these possibilities turn into a slew of notifications begging for our attention. For those feeling stressed out and seeking to be more mindful in their daily life, there's a variety of mindfulness apps aimed at teaching us how to relax, but, are these truly effective in redefining the context in which we interact with our devices, or do they simply add more tasks to our digital to do list?

### What Skeptics Say

Mindfulness experts have been skeptical of mindfulness apps, claiming that while the techniques might be effective in the moment, these apps also send out daily reminders, encourage you to maintain a streak, compare stats with friends, and eventually, pay for a subscription. Ellen Jansen, a psychology professor at Radboud University specialized in mindfulness claims these techniques used to boost user engagement can encourage obsessive behavior in the user that is counter-productive to the exercises, saying:

**"These apps sometimes stimulate this tendency by giving fanatical people the possibility to keep track of their mindfulness minutes. In this way, the app becomes a game and a stress factor"**  
(Jansen, 2018).

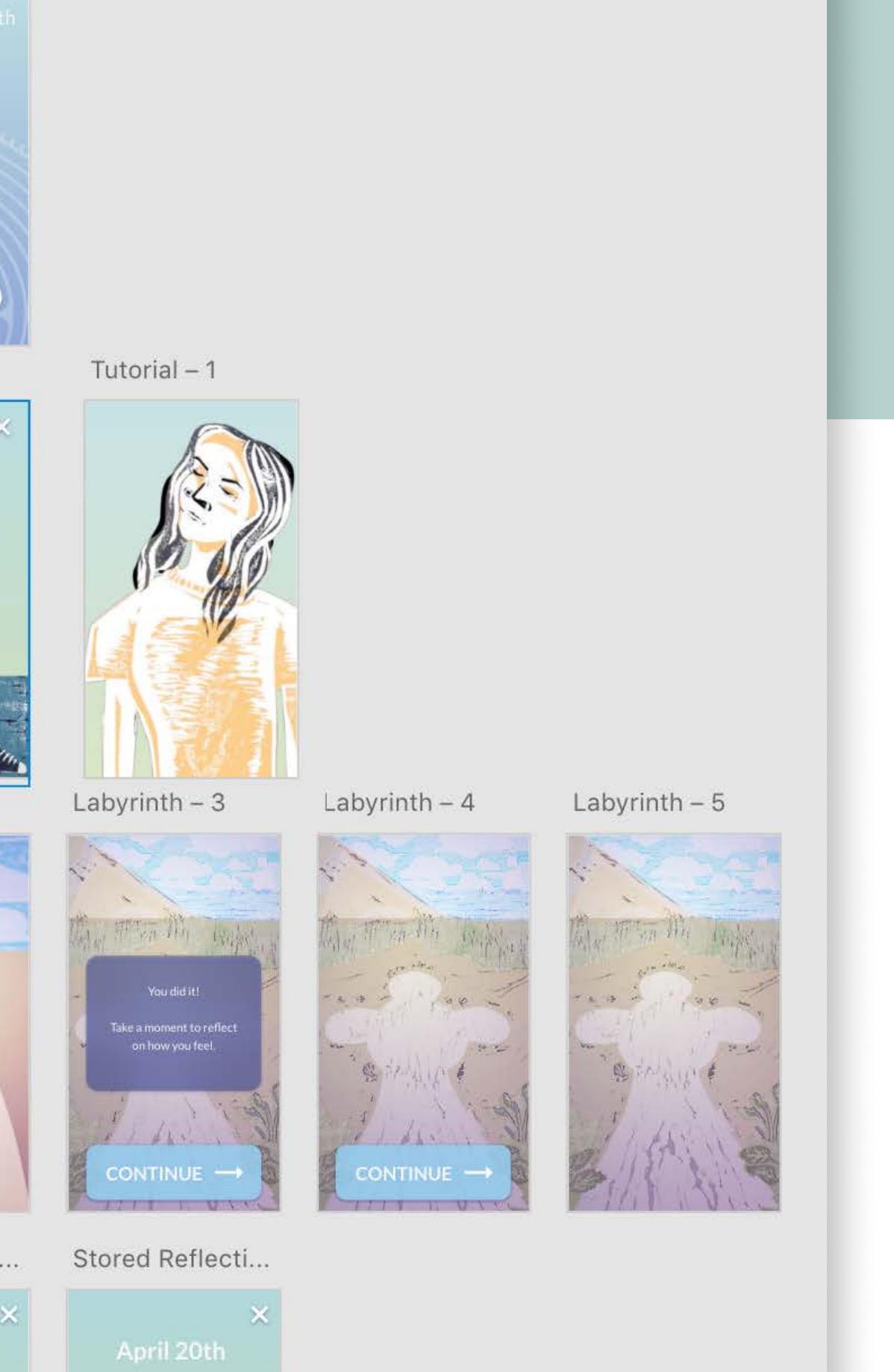
## Redefining the Mindfulness App

### User Thoughts

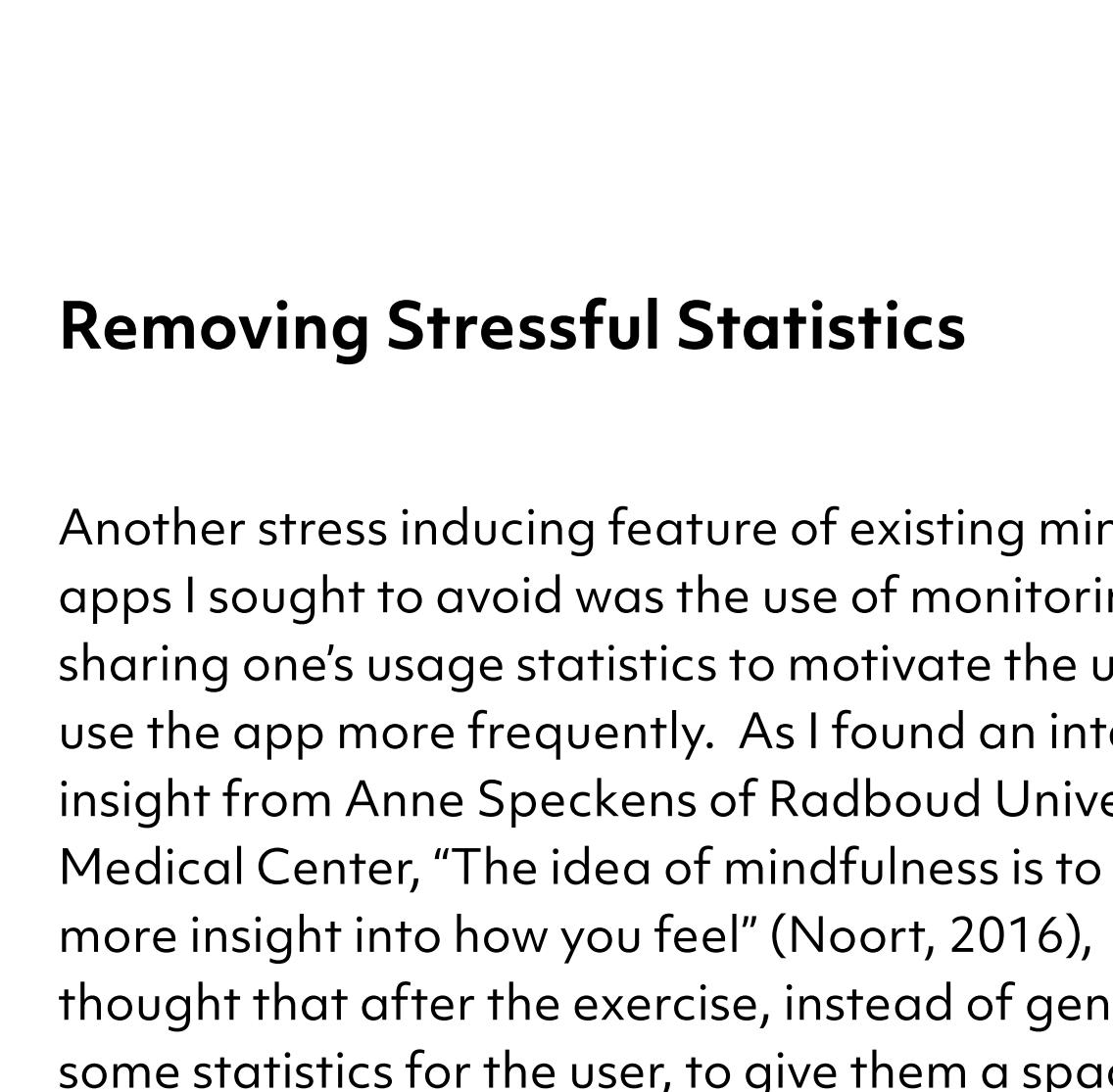
Furthermore, many people tend to stop using these apps when they are asked to buy a subscription, saying, "It's just an audio recording, and I can find that for free on YouTube". For my Bachelor's thesis and graduation project, I began a research project on mindfulness apps, how users experience them, and how one could be created that was more than a simple audio recording, and was engaging enough for users to come back without the app sending push notifications.

### Back To Basics

I came across the research of Dr. Herbert Benson, the founder of the Benson-Henry Institute for Mind Body Medicine where he leads scientific research on mindfulness practices, and helps bring mindfulness exercises into mainstream medicine. In his book The Relaxation Revolution, Benson explains the results of his scientific studies on the medical effects of mindfulness practices. "Those practicing mind body techniques tend to experience lower blood pressure, calmer brain activity, healthful emissions of nitric oxide in the body's cells, and other physical and emotional benefits" (Benson, 2011). To create this mental state, patients are guided through the following process:

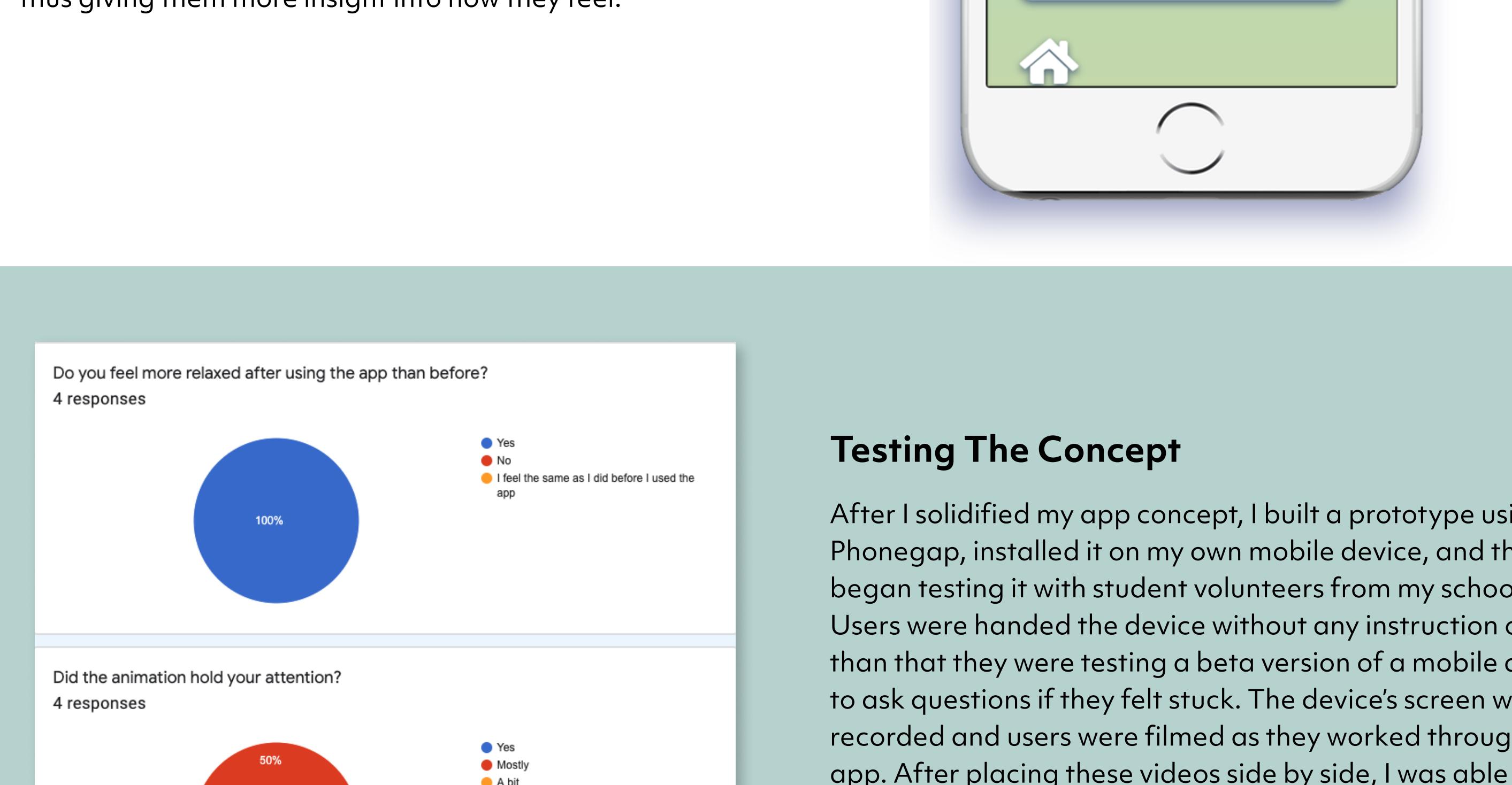


1. Sitting quietly in a comfortable place
2. A breathing exercise to relax
3. "visualizing yourself in a scene in which you are relaxed, happy, and free of whatever is plaguing you" (Benson, 2011)



### Calming Visuals

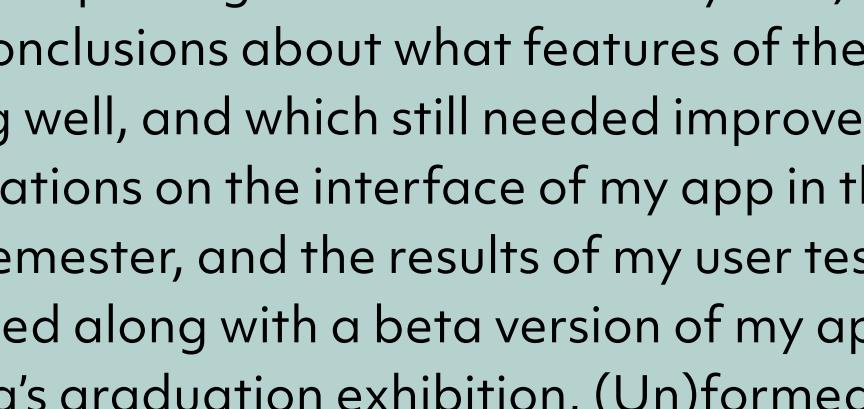
Given the approachability and scientific support behind Benson's processes, I used this as a basic process with which I could design my own app around. I created an app that guides users through an audiovisual relaxation experience, and proposed to introduce different visual elements into the experience each time the app is used, in order to keep the experience interesting with day to day use and hopefully eliminate the need to send push notifications to keep the user interested in completing the exercises. I choose a pastel color palette, with primarily blues and greens for the interface



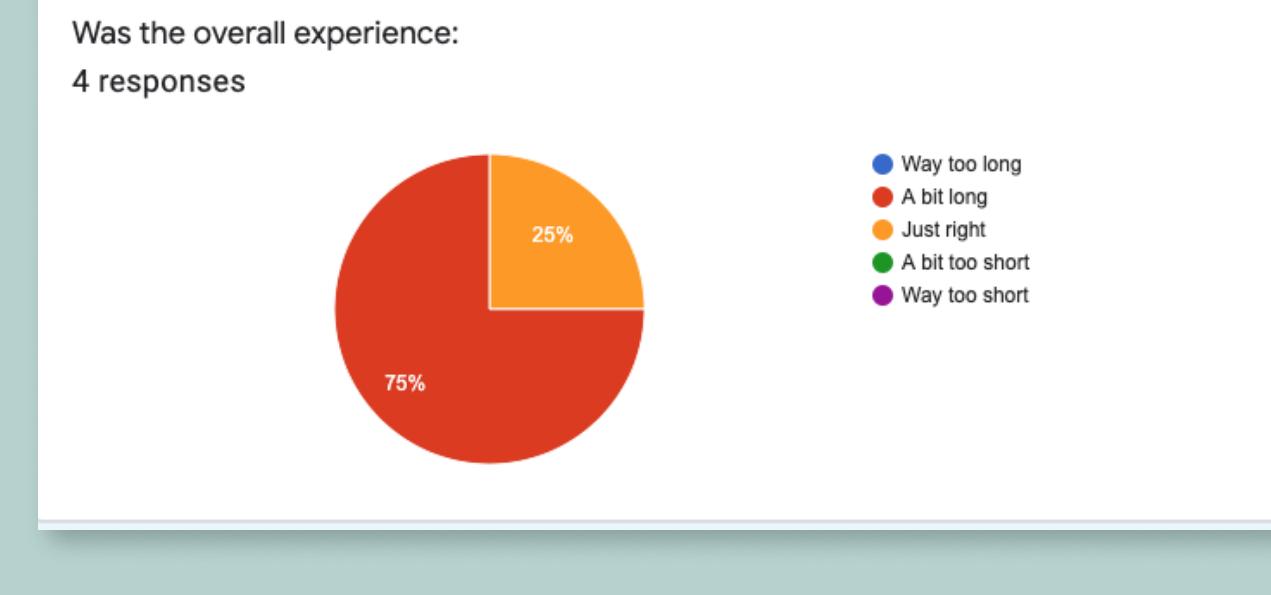
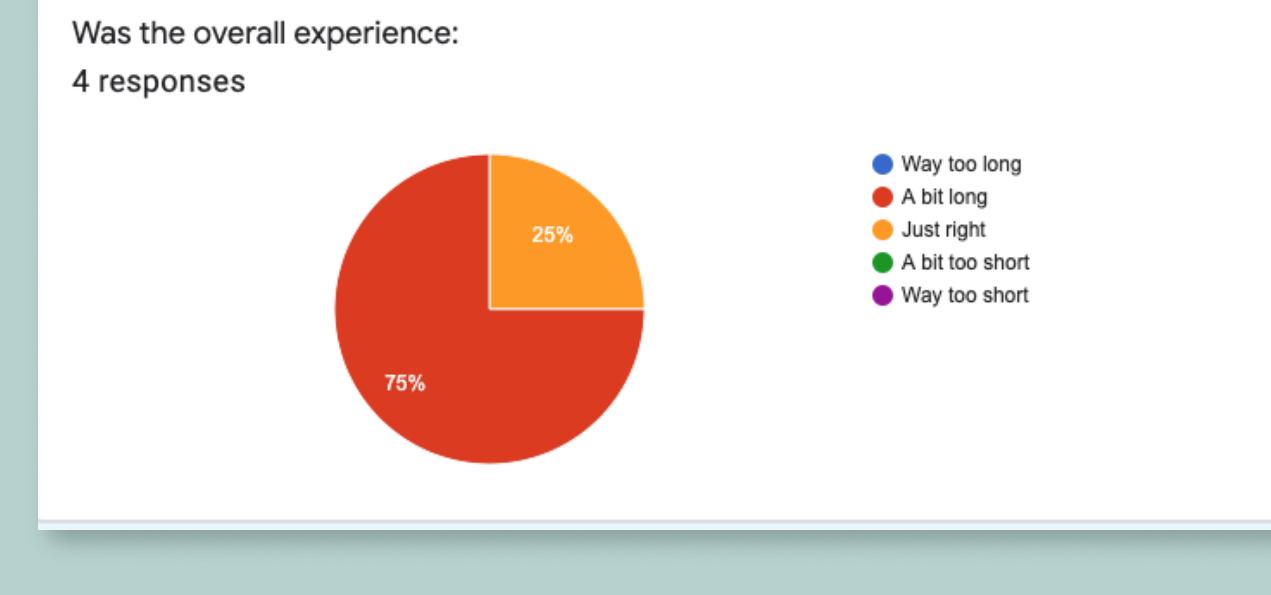
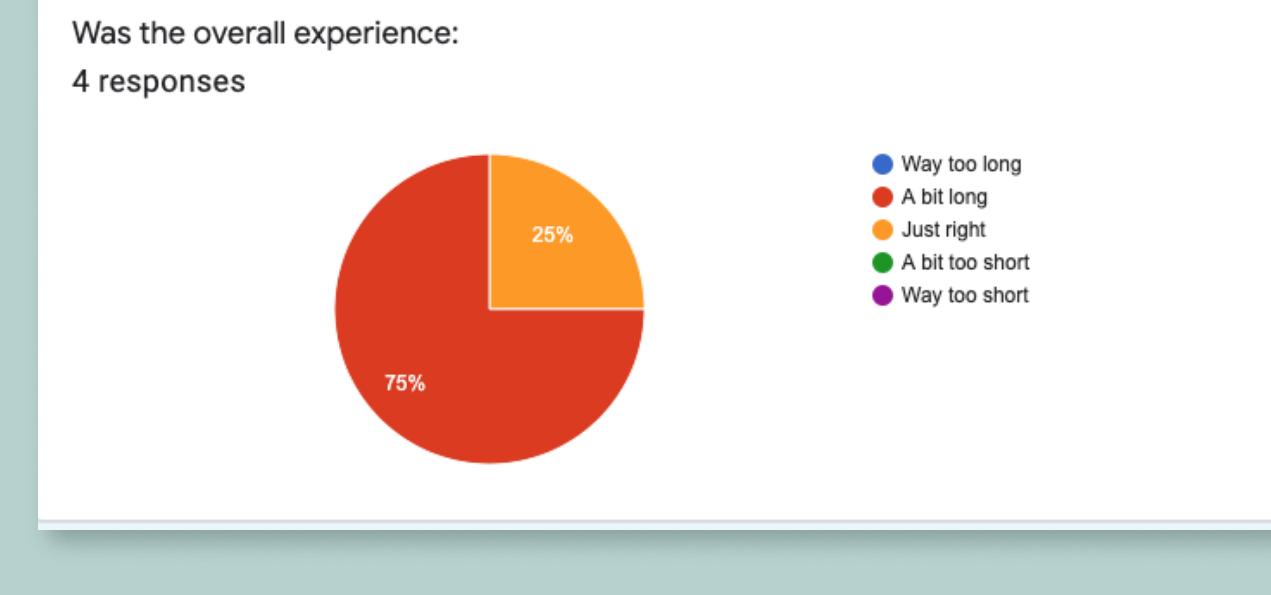
**"The idea of mindfulness is to gain more insight into how you feel" (Noort, 2016)**

### Removing Stressful Statistics

Another stress inducing feature of existing mindfulness apps I sought to avoid was the use of monitoring and sharing one's usage statistics to motivate the user to use the app more frequently. As I found an interesting insight from Anne Speckens of Radboud University Medical Center, "The idea of mindfulness is to gain more insight into how you feel" (Noort, 2016), I thought that after the exercise, instead of generating some statistics for the user, to give them a space to reflect on their emotions and take note of any thoughts they had. This way, users are encouraged to explore their emotions and thoughts as a part of the exercise, thus giving them more insight into how they feel.



**100% of the beta testers found the exercise relaxing, and would do to repeat it with new visuals**



After I solidified my app concept, I built a prototype using Phonegap, installed it on my own mobile device, and then began testing it with student volunteers from my school. Users were handed the device without any instruction other than that they were testing a beta version of a mobile app and to ask questions if they felt stuck. The device's screen was recorded and users were filmed as they worked through the app. After placing these videos side by side, I was able to draw some conclusions about what features of the app were working well, and which still needed improvement. I made a few iterations on the interface of my app in the time I had left in the semester, and the results of my user testing were presented along with a beta version of my app at Academy Minerva's graduation exhibition, (Un)formed.