

Keep a stress journal

Whenever you feel stressed, write it in your stress journal. Over time, you'll be able to identify common themes that may help you identify what triggers your stress.

At work

habitdeck

Sophie Maquiling

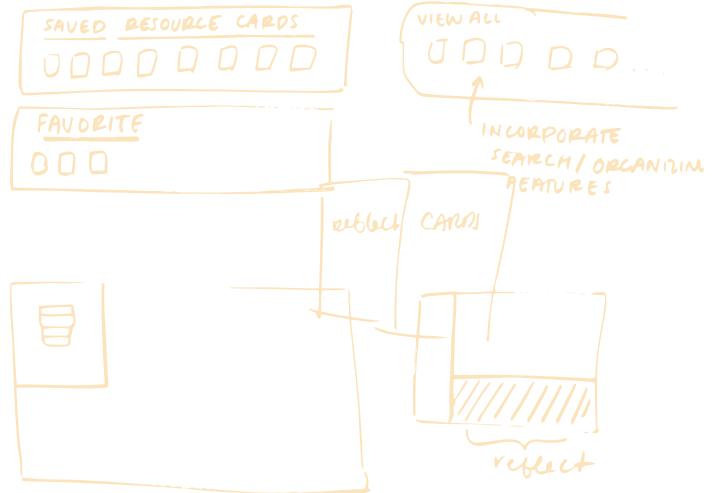
MINDFULNESS

4-7-8 breathing

Inhale through your nose for 4 counts, hold your breath for 7 counts, then exhale through your mouth for 8 counts. Repeat this breathing exercise several times.



✓ SAVED
 ❤ FAVORITE
 + ADD
 - REMOVE
 SORT INTO
 OUT DECKS
 - sort
 - choose
 - [organize] (pre-emptive)
 - color-code
 - [choose] (currently stressed)
 "take action"

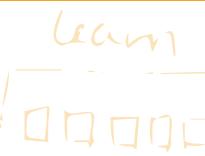


HabitDeck is a web interface geared towards college students struggling with stress and common mental health issues.

It allows users to learn about, organize, and track different methods of stress management and self-help to help them discover what methods work for them.

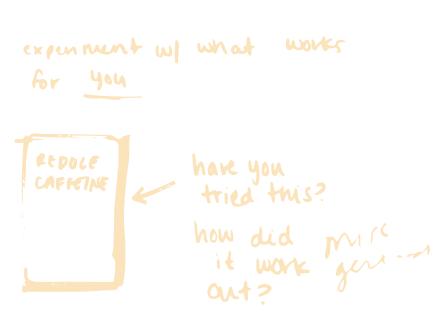
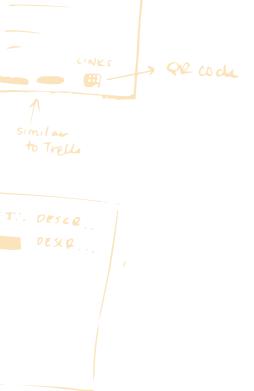
carrying
page

1st time

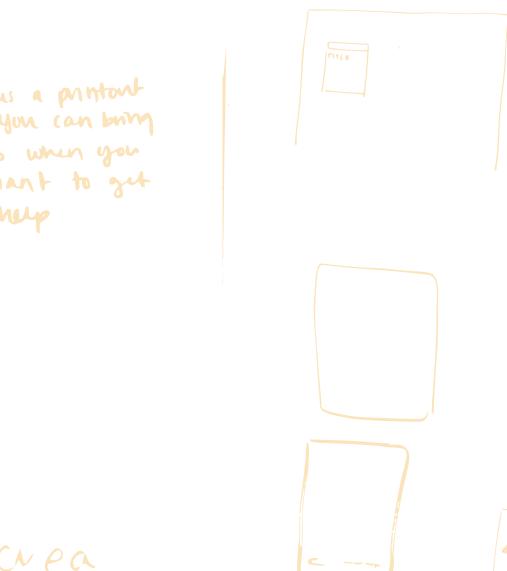


- understand
- learn

learn



MIND MAP + ASSOCIATIVE WORDS
 CARDS
 CARD STACK
 SHUFFLE
 HAND DEAL
 DECK SOLITAIRE GAME
 TECHNIQUE METHOD
 HOUSE OF CARDS
 - CARE HAND
 - STRESS DECK
 - HEADHAND
 - HEADDECK
 - DECKMETHOD
 - MIND DECK
 - MIND STACK
 - MIND SHUFFLE
 - STACK-OFF MIND
 - HAND BALANCE
 - BALANCE DECK



crea

Introduction

Journal
Your feelings

Instead of keeping your thoughts
to yourself, write them out.
Expressing your feelings
prevents resentment and stress
from increasing.

In the night,
when you are
writing a note,
you'll see
what you've written.

OWN

journey

every day
(or stress)

you'll be able to
see what you've written.

Background

Anxiety and depression affect about 1/5 of the population in high income countries, yet only 18-34% of adolescents and young adults seek informal or formal help from others.

Social stigmas, not recognizing symptoms, and a preference for self-reliance are three significant barriers that prevent young people from seeking help for common mental health issues (Gulliver).

E-mental health platforms are believed to have great potential in their ability to make mental health services more accessible (Lal), but research calls for further discussion on implementing such online platforms effectively (Kauer).

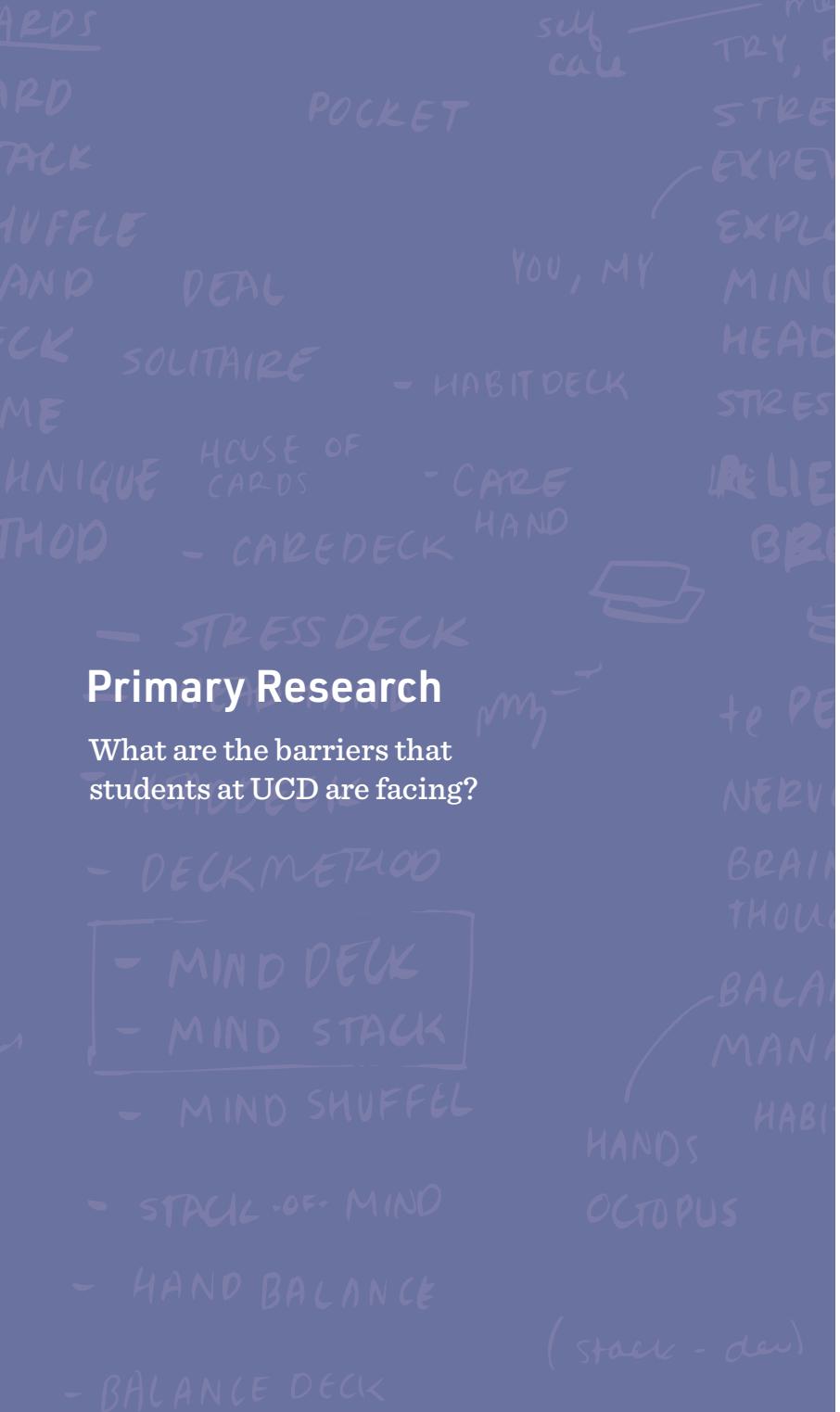
Research Question

How can web design empower people to make decisions about their mental health?

How can a web interface...

1. Respond to barriers that students face while seeking help for common mental health issues?
2. Empower users to take a step further in making decisions about their mental health?

MIND MAP + ASSOCIATIVE WORDS



To better understand the barriers students seek when seeking mental health help, I had conversations with several UC Davis students.

UC Davis students

I asked about students personal experiences seeking mental health help at UC Davis and the barriers they faced. Their experiences supported Gulliver's research; common themes in these conversations were the issues of social stigmas and preferences for self reliance.

NAMI at UC Davis

I visited the National Alliance on Mental Illness (NAMI) student chapter at UC Davis and spoke to the chapter's president about their observations of students seeking help. An insight from this conversations was that college culture perpetuates existing barriers: "It's one thing not to recognize that you're stressed; it's another thing to know you are stressed but college culture permits it."

"It's one thing not to recognize that you're stressed; it's another thing to know you are stressed but college culture permits it."

- Based on this anecdote from NAMI's president, I decided to focus my interface on changing students' relationships with stress.

Comparative Analysis

What types of interfaces already exist?

I began designing with a comparative analysis of mental health and educational interfaces.

I started by looking at traditional **mental health e-services** available to students. I noticed that these interfaces primarily served students seeking indirect or informal help rather than formal help.

The screenshot shows a website for 'Student Health and Counseling Services'. At the top, there's a navigation bar with links for 'About', 'Medical Services', 'Counseling Services', 'Wellness Services', 'Insurance', 'Resources', and 'New Students'. Below this is a search bar with a magnifying glass icon and a dropdown menu. A secondary navigation bar below the main one includes 'App', 'Books', 'Videos', 'Podcasts', 'Recommended Health Websites', and 'Self Assessments'. On the left side, there's a sidebar with a tree icon and categories: '+ General Health', '+ Mood', and '- Anxiety' (which is highlighted with a dark blue background). At the bottom, there's a section titled 'AppLink' with three items: 'Mayo Clinic Anxiety Coach' (Cost: iTunes: \$4.99; Similar Android App: \$2.99), 'Panic Attack Podcasts' (Cost: iTunes: FREE), and 'Stop Panic & Anxiety' (Cost: Android: Free).

I looked at **educational interfaces** aimed at changing a user's behaviors. I noticed an overall trend of user personalization in these interfaces. For example, "Vote Local," a New Zealand based application that educates young people about voting parties, shows users an illustration of their ideal country after they answer a questionnaire.

I also thought about **offline tools** that people incorporate into their professional or personal lives.

Mental health e-services

SELF HELP

Welcome to the CAPS Self-Help Library! Here you will find books, websites, and mobile/tablet applications that are focused on mental health and wellness. These resources are designed to support self-help, promote wellness, and serve as adjunctive tools for mental health counseling. Each tab will provide information that will assist you and your well-being. Please note that these resources are no direct substitute for counseling.

Student Health and Counseling Services

Tentative Diagnoses

This section shows likely diagnoses and/or sub-clinical disorders. These are tentative diagnoses and need to be verified by a mental health professional. Symptoms that are problematic will be displayed in different colors, depending on their severity. Please refer to the legend provided for more information.

Legend:

- Severe symptom
- Moderate symptom
- Mild symptom

Symptoms Detected

You show symptoms of the mental health disorders indicated below. While they have not reached the level of full diagnosis, seeking the advice of a therapist is recommended, as the symptoms may become overwhelming, more frequent, and more serious.

Generalized Anxiety Disorder (score 41)

Diagnostic Result: Subclinical/Symptomatic

Definition: A disorder characterized by excessive worry about a number of things in your life (DSM-5 criterion A).

- For at least 6 months, you worried or were anxious about a number of things in your life (DSM-5 criterion A).
- You found it difficult to keep your worry under control (DSM-5 criterion B).
- You felt tense, restless, or on edge (DSM-5 criteria C-1 and/or C5).
- You experienced sleep disturbances, and had difficulty falling or staying asleep (DSM-5 criterion D).

Educational interfaces

Fun in the City

Did you know? New Zealand's council-owned assets are valued at over \$100 billion.

Your Results!

Helping members of your local council to think about valuing the City or their region to help them decide.

A Closer Look At Your Results

Some issues may matter to you more than others, so here are the ones that are most important for each group.

Dailies

New Daily

To-Dos

New To-Do

Offline tools

Empathy Tools

How can tools like crowded grocery and weighted gloves experience processes as though they were the user or a member of a different user group? This is an easy way to generate an empathetic understanding for users in different conditions.

Competitive Product Survey

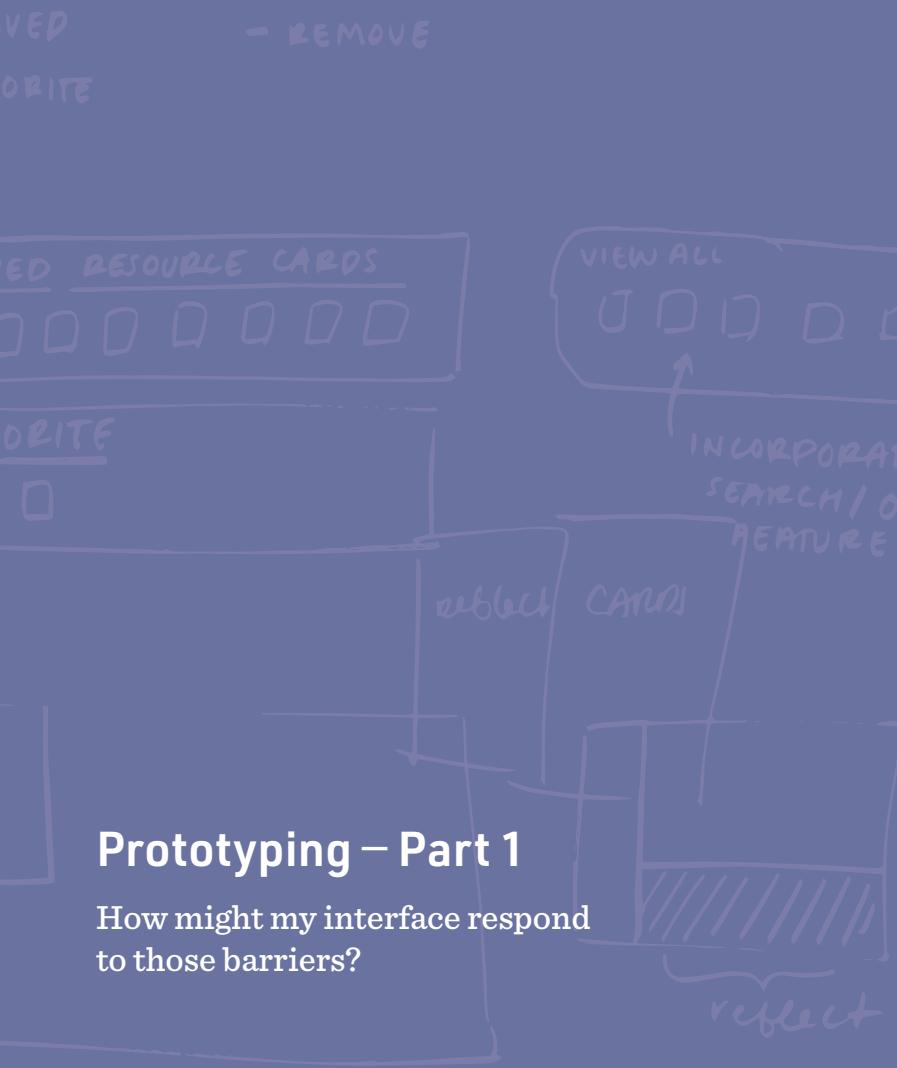
HOW: Collect, compare, and conduct evaluations of the product's competition.

WHY: This is a useful way to establish functional requirements, performance standards, and other benchmarks.

Shadowing

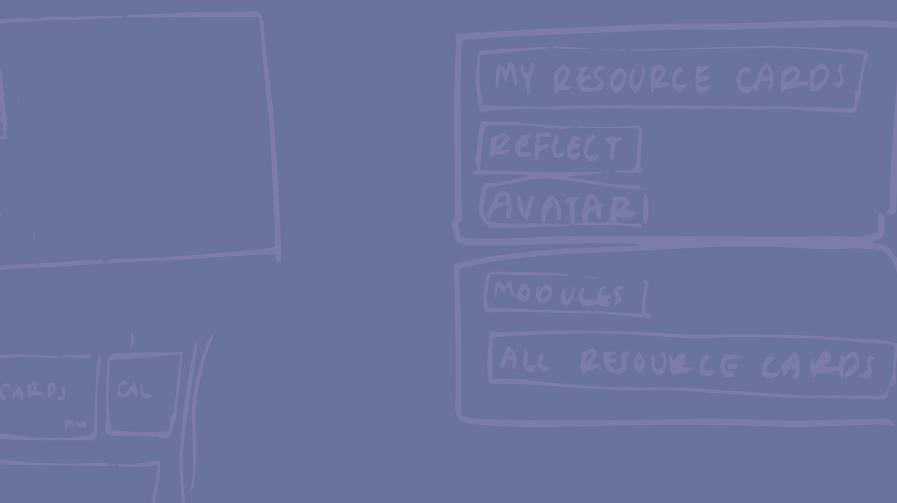
HOW: Tag along with people to observe how they use the product in day-to-day routines, interactions, and contexts.

WHY: This is a valuable way to determine how the user's needs and the product might affect or complement one another.

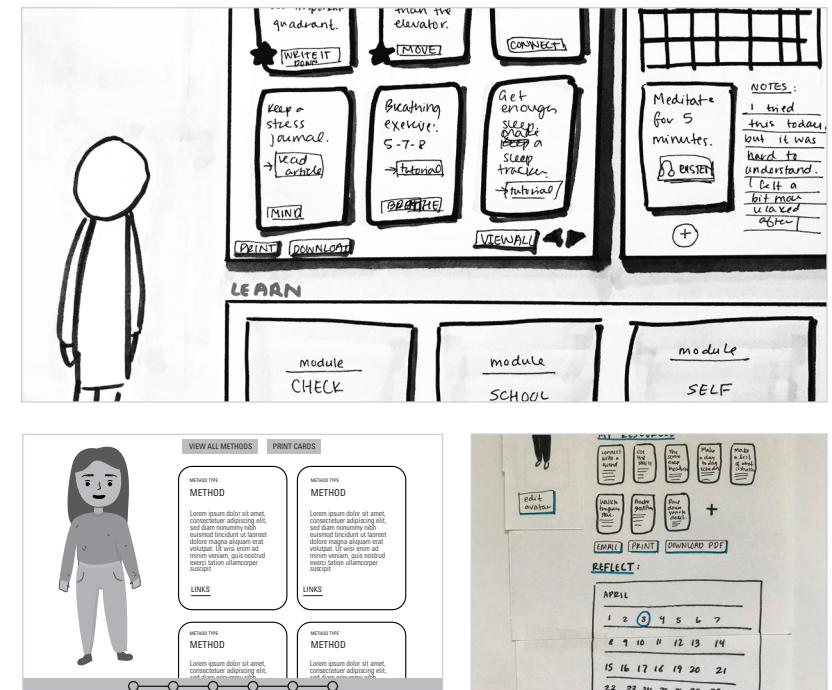


Prototyping – Part 1

How might my interface respond to those barriers?



During my first round of prototyping, I aimed to create an interface that encouraged students to make stress-reducing changes in their daily lives.



I was inspired by the use of personalization to motivate users to change their behavior. I was also influenced by IDEO's "method cards," a tool that allows designers to quickly reference research methods.

My first prototype (page 9) was a personalized tool that allows users to learn about, organize, and reflect on **stress management cards**. After personalizing their cards on the web interface, the user would also be able to print them and carry them as physical cards.

LEARNING TAKING ACTION REFLECTING

Here's what you can do

These are your saved resource cards.

Print Download Email

FILTERS
Filter your saved resource cards by your labels, your favorites, or your categories.

MINDFULNESS

Meditation
Meditation can help you ground yourself in the present. Meditation usually consists of focusing attention on the breath and the body.
Try these guided meditation podcasts.

MOVE

Take the stairs
At work or at home, take the stairs instead of the elevator.

CONNECT

Message a friend
Having a support system you can rely on reminds you that you are not alone. Message a friend to say hi, make plans, or check in.

WRITE IT DOWN

Reframe problems
When you are worried about something that hasn't happened yet, come up with three possible outcomes: the best case scenario, the worst case scenario, and the most realistic scenario.

Add your own cards

Lear about new methods to try

LEARNING TAKING ACTION REFLECTING

Take time to reflect

How are your methods working for you?

Meditation
Mindfulness

Meditation can help you ground yourself in the present. Meditation usually consists of focusing attention on the breath and the body.

Try these guided meditation podcasts.

Source

MY LABELS

Trouble sleeping At work Everyday

MY NOTES

Save

April 23, 2018

Did you use this resource card today?

What prompted you to use this method?

How did you feel before? Other notes?

How did you feel after?

LEARNING TAKING ACTION REFLECTING

Take time to reflect

How are your methods working for you?

April 2018

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
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MINDFULNESS

Meditation
Meditation can help you ground yourself in the present. Meditation usually consists of focusing attention on the breath and the body.

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Source

+ Add a reflection

MINDFULNESS

Meditation

Meditation can help you ground yourself in the present. Meditation usually consists of focusing attention on the breath and the body.

Try these guided meditation podcasts.

Source

Heart Blue Purple More

MY LABELS

Trouble sleeping At work Everyday

+

◀ April 23, 2018 ▶

Did you use this resource card today?

What prompted you to use this method?

How did you feel before? Other notes?

How did you feel after?

Getting Feedback

How effective is my interface?

Undergraduate Research Conference

I presented my prototype at the Undergraduate Research Conference, where I asked students to use my Invision prototype and share their questions, comments, and ideas for improvement. I decided to incorporate the areas of feedback below, as multiple students shared these points.

Reduce visual noise

Users found the detailed view of a card overwhelming. One student told me, "When I'm stressed out and looking for a solution, I would get even more stressed out if it was hard for me to find something."

Visualize patterns

Users also found the journaling section on each card helpful, but they expressed that they wouldn't be able to conclude how well a card worked for them. They thought that incorporating a way for users to view their trends would benefit this interface.

Getting expert feedback

At the Undergraduate Research Conference, I had the opportunity of connecting with the Psychology Department's Dr. Camelia Hostinar, whose research is in childhood stress. Dr. Hostinar helped me understand how professionals might categorize stress management techniques and pointed me in the direction of credible psychology research sites.

Prototyping – Part 2

How can I improve my interface
based on user feedback?

In this round of prototyping, I focused on paring down the interface to reduce the visual load on the user as well as incorporating ways of visualizing a user's patterns.

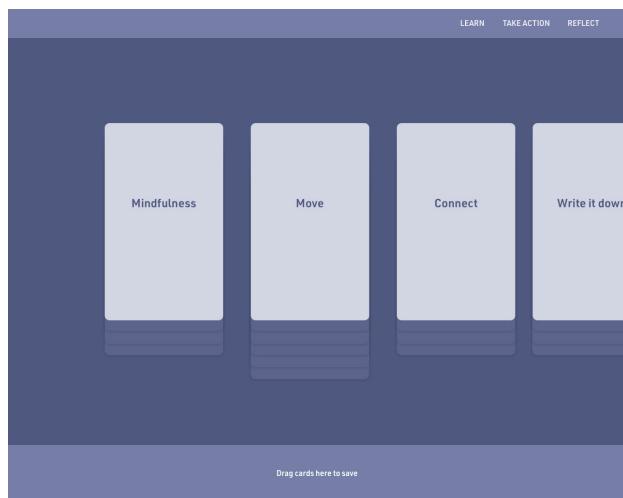
I also created black and white and color mockups of the printable cards to explore how a user's experience might move from online to offline.



Prototype Overview

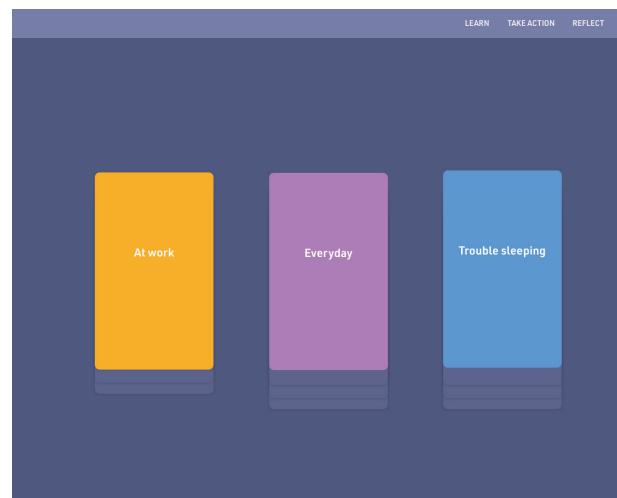
Learn

The Learn page allows the user to learn about different methods of stress management and self help. Each **Card** is grouped into a **Deck** that is part of the system. The user can add Cards from the Learn page to their own Decks, which can be found in the Act page.



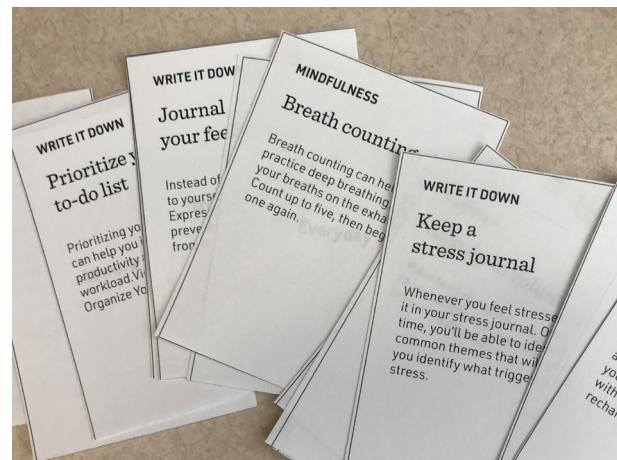
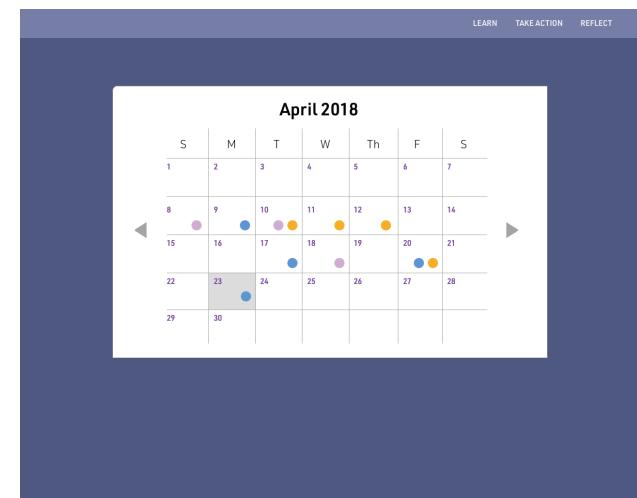
Act

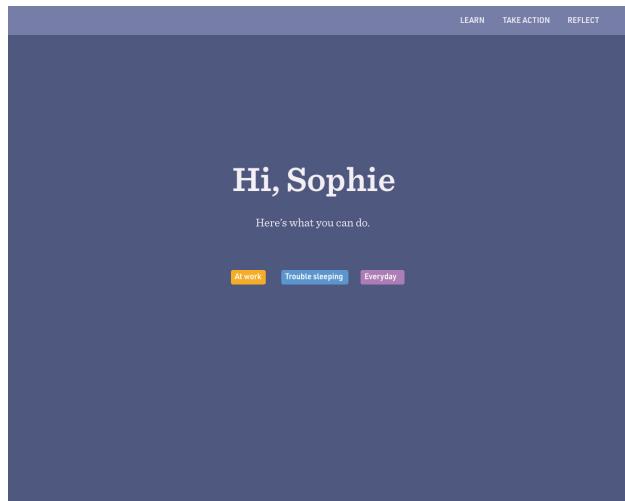
In the Act page, the user can access the Decks that they have created. The user can interact with their Cards to organize and rate their effectiveness. The user can also print their Cards to reference them offline.



Reflect

The Reflect page allows the user to track and evaluate the methods they use on a calendar.





Landing page

At the Undergraduate Research Conference, one student told me that they have a hard time navigating websites when they are stressed. To reduce the load on the user, I decided to keep the landing page blank and link directly to the user's Decks.

Learn

The user can explore Decks of different stress management categories.

Mindfulness

Move

Connect

Write it down

Drag cards here to save

Mindfulness

Meditation

4-7-8 Breathing

Clench and relax

Drag cards here to save

Mindfulness

MINDFULNESS
Meditation

Meditation can help you ground yourself in the present. Meditation usually consists of focusing attention on the breath and the body.
Try these guided meditation podcasts.

Source

Saved ✓

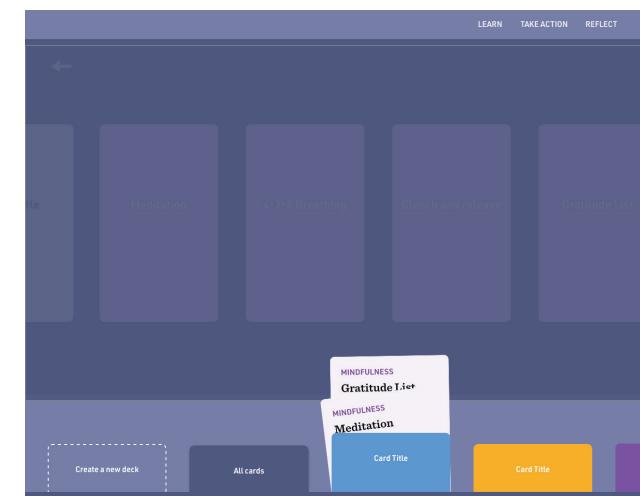
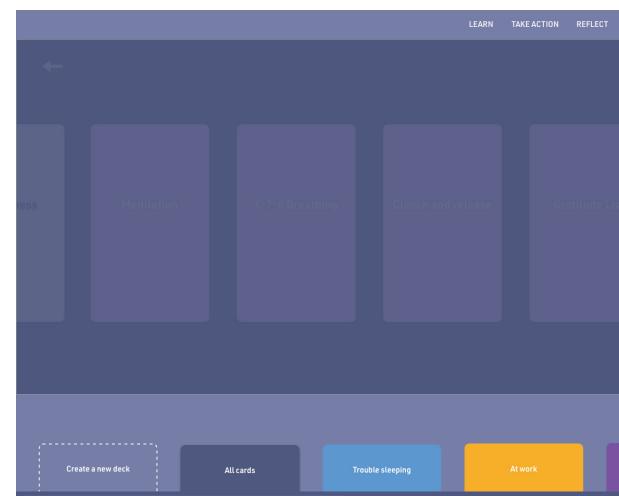
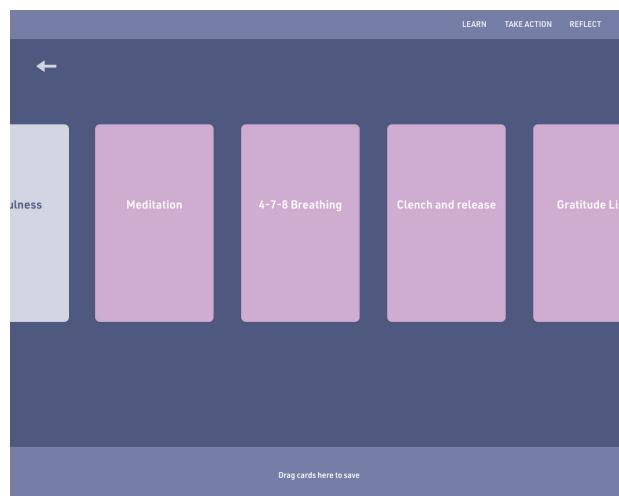
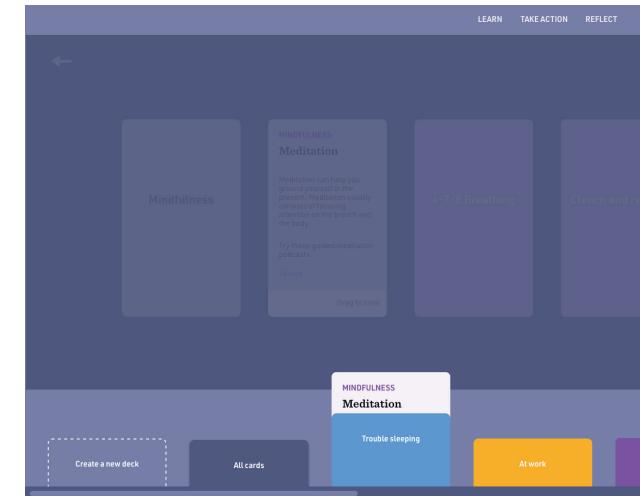
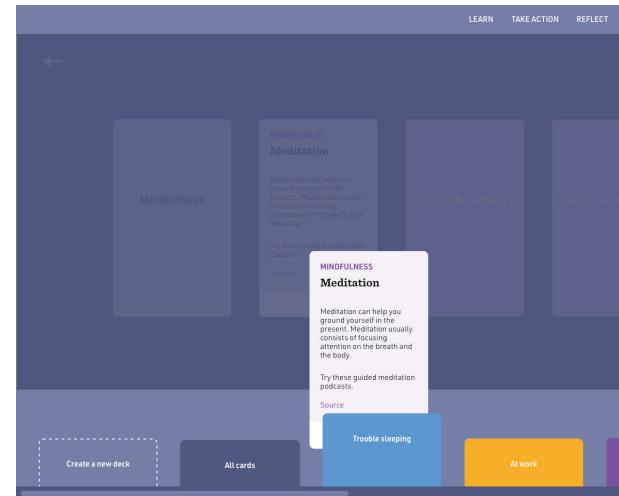
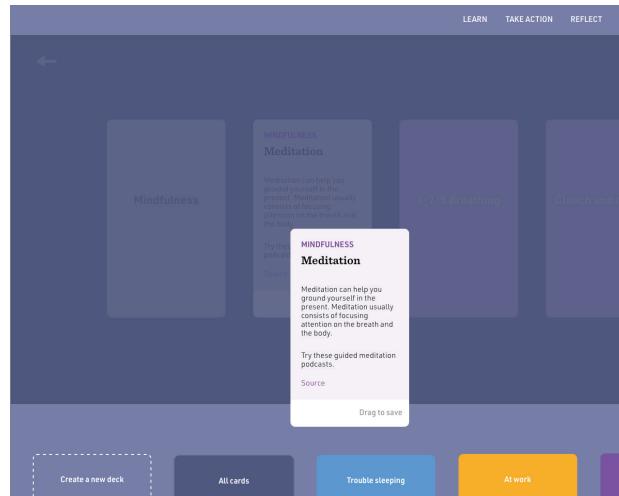
4-7-8 Breathing

Clench and relax

Drag cards here to save

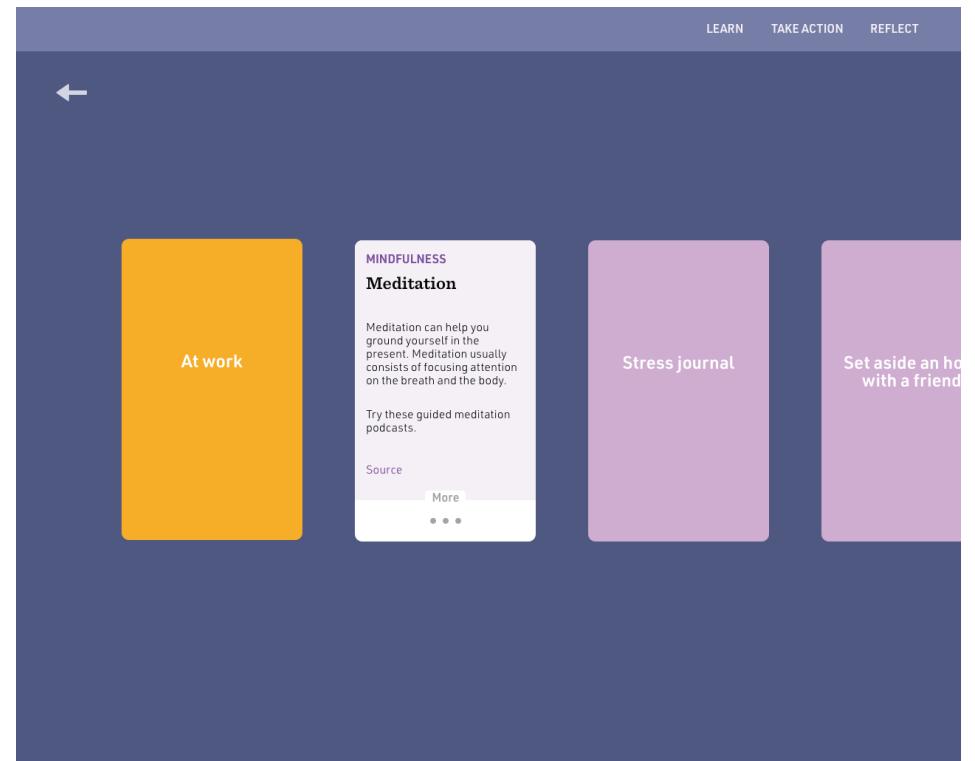
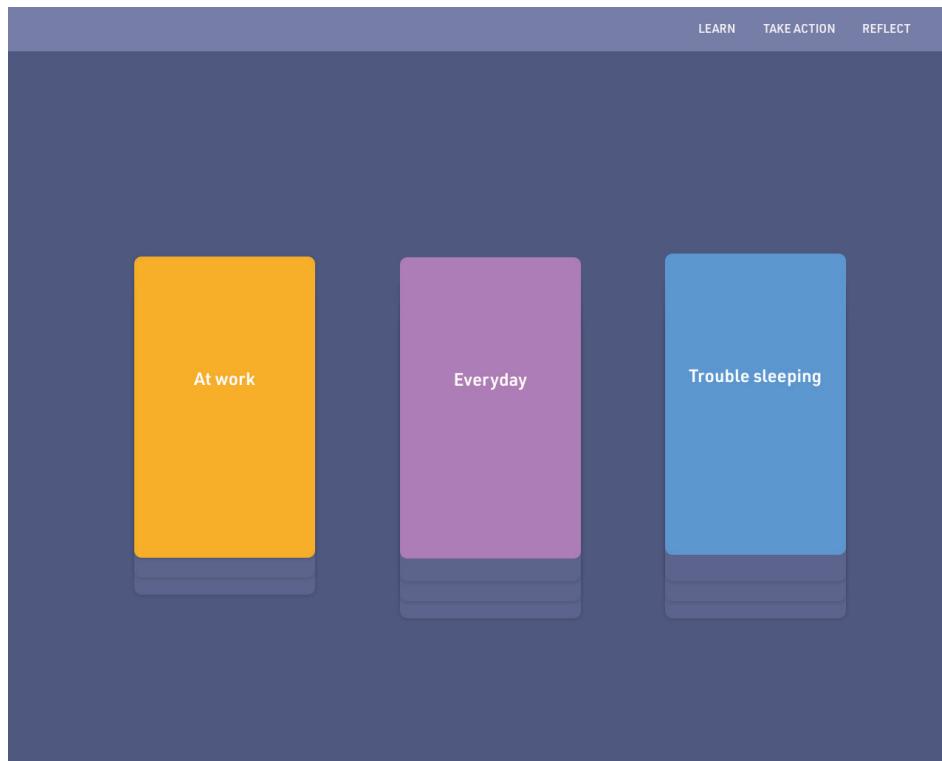
Learn

The user can save different Cards to their own Decks.



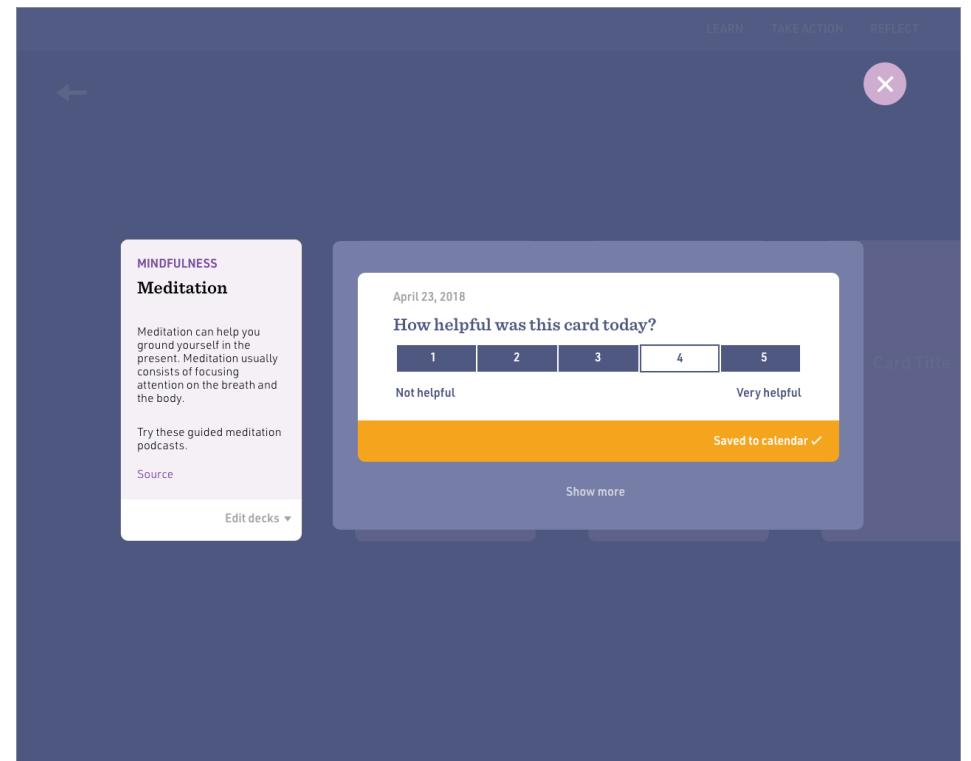
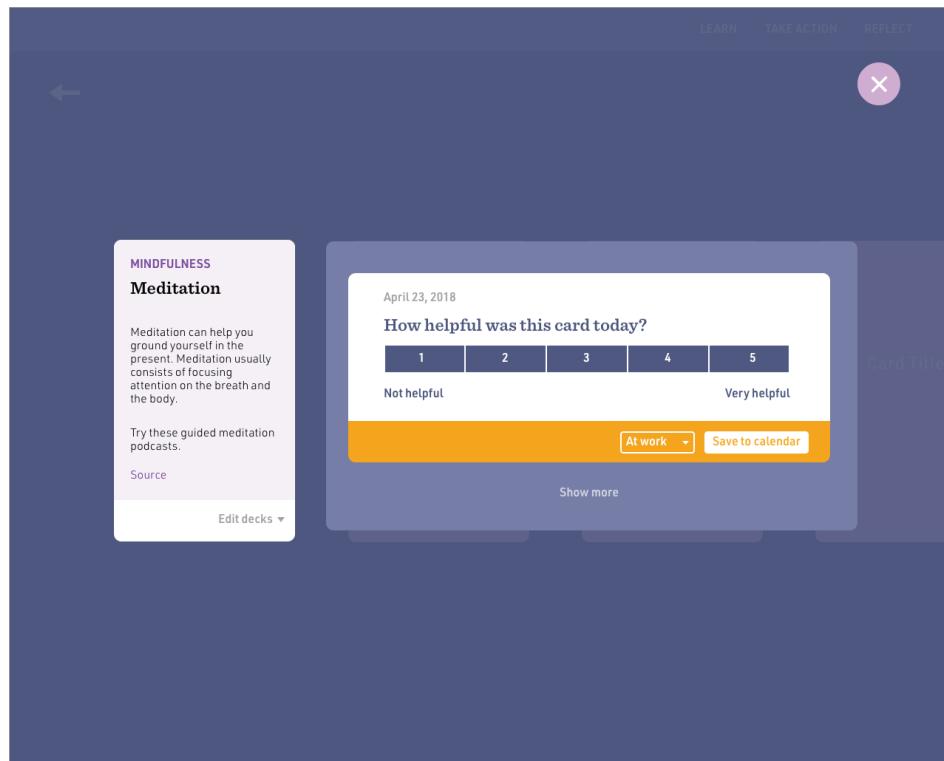
Act

The user organizes their Cards into their own Decks.



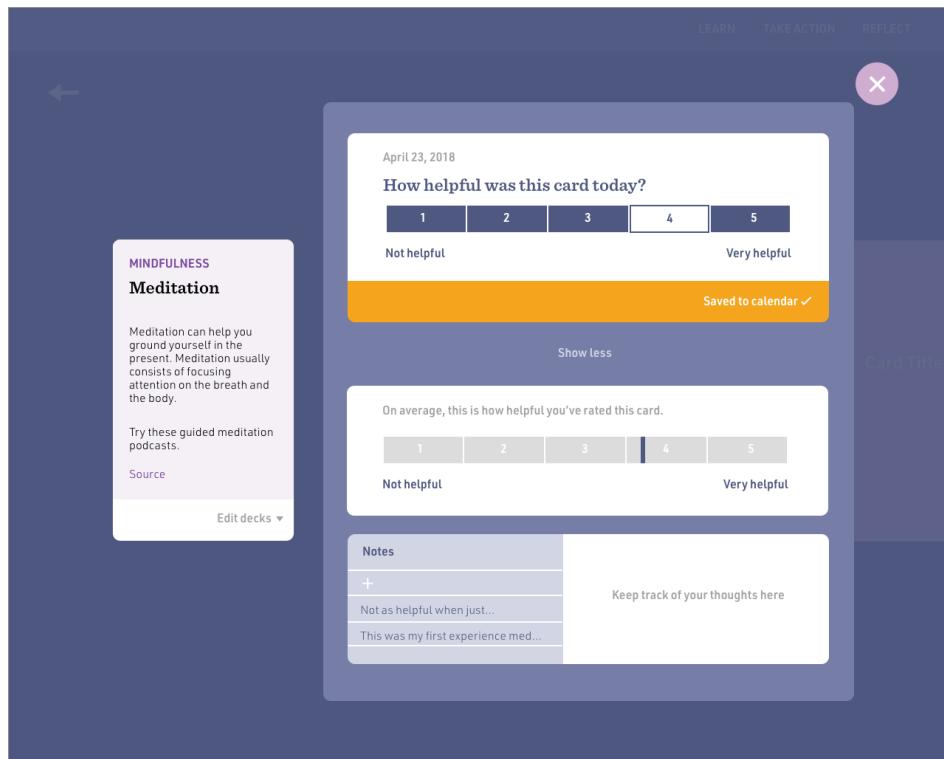
Act

When a user uses a Card, they can rate its helpfulness each day to automatically log it on their calendar.



Act

The user can also store more information on each card, including an average helpfulness rating and notes. I chose this to be secondary actions as to reduce the visual load of the user.



This screenshot shows the same 'Meditation' card as above, but with a notes overlay. The overlay has a header 'MINDFULNESS' and 'Meditation'. It contains a summary: 'Meditation can help you ground yourself in the present. Meditation usually consists of focusing attention on the breath and the body.' Below this is a note: 'Try these guided meditation podcasts.' A 'Source' section with an 'Edit decks ▾' button is visible. The notes section lists 'Trouble sleeping' and 'At work' under a '+' sign, with a '+ Add' button at the bottom right. The notes area also includes a 'Edit decks ▾' button.

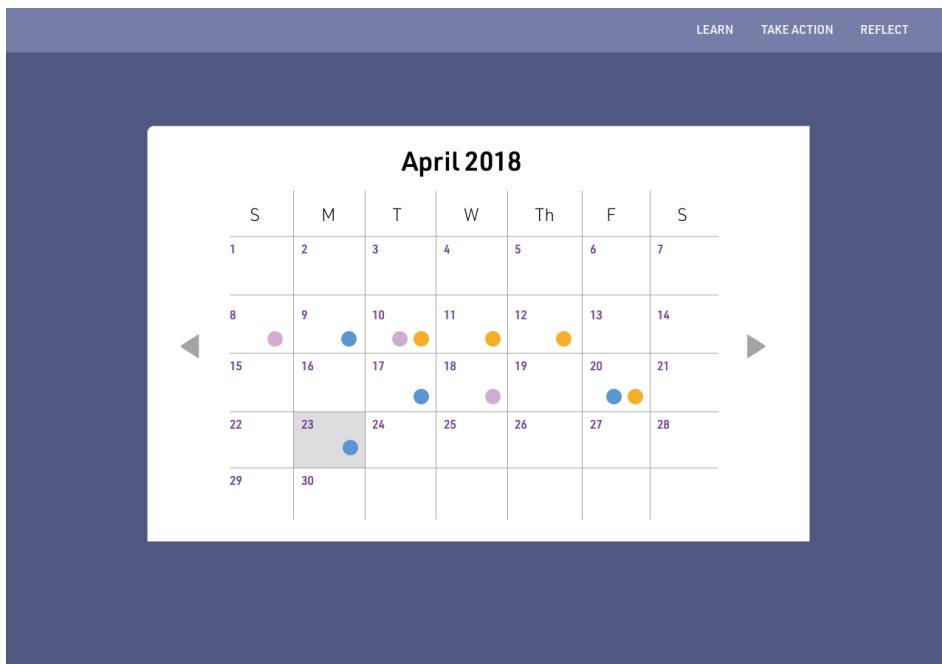
This screenshot shows a note entry screen. It has a header 'Notes' and a date 'April 4, 2018'. The note content is: 'Not as helpful when just...'. Below this is a note: 'This was my first experience med...'. There is a '+' sign and a 'Save' button at the bottom.

This screenshot shows a note entry screen. It has a header 'Notes' and a date 'April 4, 2018'. The note content is: 'Not as helpful when just...'. Below this is a note: 'This was my first experience med...'. There is a '+' sign and a 'Save' button at the bottom.

This screenshot shows a note entry screen. It has a header 'Notes' and a date 'April 23, 2018'. The note content is: 'Tried new app Headspace...'. Below this is a note: 'Not as helpful when just...'. Below these is another note: 'This was my first experience med...'. There is a '+' sign and a 'Save' button at the bottom.

Reflect

When a user gives a Card a helpfulness rating, it gets logged onto the calendar. To allow users to visualize their trends, I incorporated color coding by Deck name in the Calendar as well as the average helpfulness rating and notes on the detail view of each day.



The desktop application features a top navigation bar with 'LEARN', 'TAKE ACTION', and 'REFLECT' buttons. Below is a monthly calendar for April 2018 with colored dots indicating helpfulness ratings for each day. At the bottom, there are two detailed views: one for 'MINDFULNESS Meditation' on April 23, 2018, and another for the average helpfulness rating across all cards.

April 2018

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MINDFULNESS
Meditation

Meditation can help you ground yourself in the present. Meditation usually consists of focusing attention on the breath and the body.

Try these guided meditation podcasts.

Source

More

• • •

April 23, 2018

How helpful was this card today?

1	2	3	4	5
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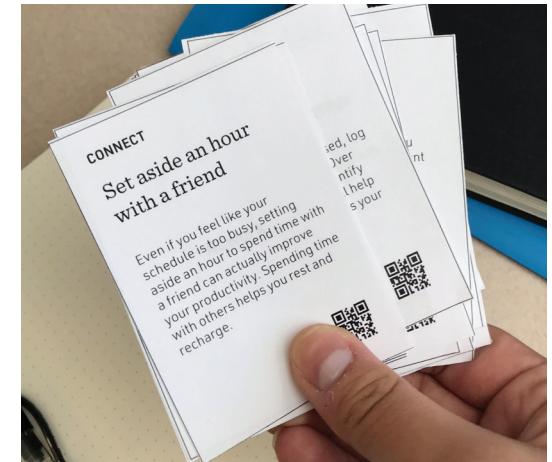
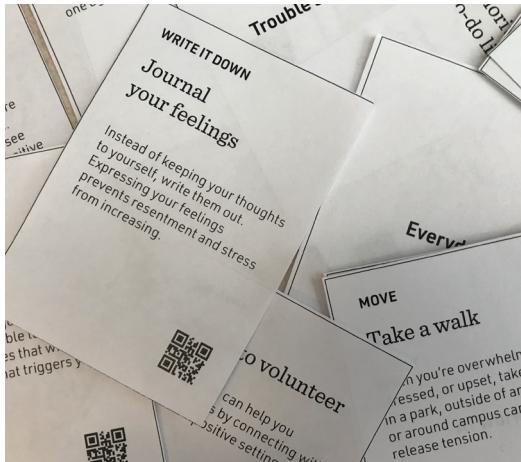
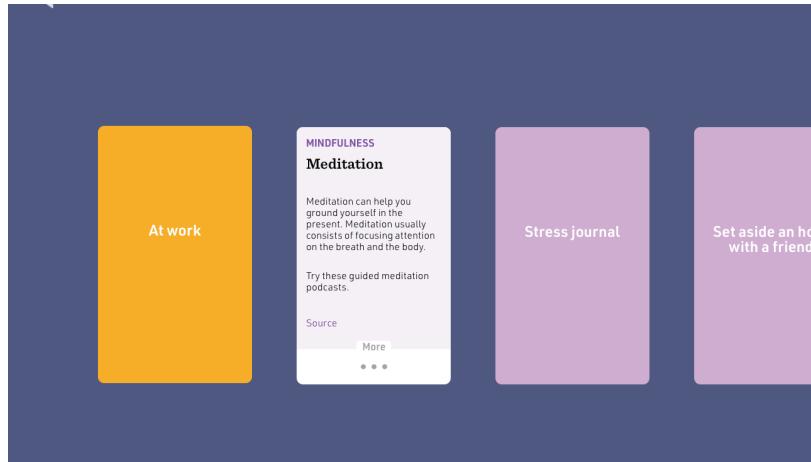
Not helpful Very helpful

On average, this is how helpful you've rated this card.

1	2	3	4	5
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Not helpful Very helpful

Notes



Offline

I also created black and white and color paper mockups of each Card, as a user would have the option to personalize their cards then print them to use them offline. On each printed card, I incorporated a QR code that the user can scan that will link to that their Card's detail view.

Conclusion

At work

WRITE IT DOWN
Gratitude list
Keep a gratitude list that you fill out regularly. Reflecting with gratitude can help you reframe negative thoughts.



Learning outcomes

By working on this project over the course of two quarters, I was able to go in depth with research at the early stages of this project. I came in not knowing what the end result of this project would be, but spending significant time on primary and secondary research helped me narrow the scope of my project into a meaningful topic.

The time frame I spent on this project also allowed me to create several iterations of my prototype. I was able to consider feedback from design faculty and other students alike; I was able to improve my prototype from its first iteration to its most current and learn about usability through practice.

Further steps

The discussions I had with students at NAMI and the Undergraduate Research Conference helped me understand that students **are** interested in learning about self-help and self-care. To continue working on this project, I would first aim to code my prototype and user test it to evaluate its effectiveness. Further along in the process, I would seek additional expert feedback from a psychologist and partnership with a computer scientist student.

References

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Thank you!

Glenda Drew
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Dr. Camelia Hostinar

