



MENTAL HEALTH TRACKER

Group Number: 5

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Group Name: Cool Health Guides

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Executive Summary

Our prototype aims to help UofT students track their mental health over time and give them easier access to UofT resources.

Participants found the UI simple & easy to understand. Most users ($\frac{4}{5}$) said they would recommend the service to a friend.

Most of the UI problems involved the journaling prompts being hard to interpret, the dashboard being confusing, and various smaller details across the prototype.

Research Method

User testing was conducted through Zoom. Participants would sign the consent form and then complete our 3-stage test.

1. Fill out the pre-study questionnaire.
2. Complete tasks while using the prototype

At this stage, members of our team focus on different tasks of their own. Some are responsible for metrics, others observation, recording, and facilitating the testing.

3. At the final stage of testing, participants are asked a series of questions regarding their experience with the prototype.

Research Method - User Testing Tasks

The following is the complete list of task prompts that would be asked to participants during user testing:

1. Journaling
 - a. How would you record a diary entry for today?
 - b. How would you delete an entry from May 6th, 2022?
2. Surveys
 - a. Complete a mental health survey
 - b. Show me how you would complete a mental health questionnaire and leave a note about your day.
3. View Reports
 - a. Compare your anxiety and stress scores for April 2022.
 - b. How would you view the details and results of a mental health questionnaire completed on April 4, 2022
4. Export Workshops to Calendar
 - a. Browse available events hosted by Health & Wellness and register in 'Better sleep introduction'.
 - b. Your registration/enrollment has been accepted. Check the details and add the event to your calendar.
5. Responding to messages from H&W Representative
 - a. You have received a chat request from a health and wellness rep. Check the details and reply to the rep.

Research Method - Recruitment

During testing our team recorded the time taken to complete each major task and any reported/observed issues encountered along the way. Notes are taken to highlight any insightful comments a participant may mention.

Video and audio recordings were also taken of the prototype stage of testing.

To recruit participants, reached out to their personal network. We ensured that participants had no prior knowledge on the prototype.

Participant Demographics Summary

We have conducted our testing with 5 participants. They are roughly evenly split, gender wise, with 3 participants being female and the rest being male.

All of our participants were undergraduate students or recent graduates of a Computer Science/ Engineering program. The participants were also selected to be in similar ages, ranging from 20 to 23.

Four reported spending over 10 hours per day on their laptops/ desktops, while only one reported spending around 5. The majority of participants also reported that they rarely ever reach out for mental health support or use a journal.

Findings & Design Implications

Task Overview

- The tasks that were asked of our participants is as described below with the task number, description, and the exact wording used as according to our test script:

| Task Number | Task | Wording used in test script |
|-------------|---------------------------------|----------------------------------------------------------------------------------------------------------|
| 1a | Write the journal and save it | How would you record a diary entry for today? |
| 1b | Delete a journal | How would you delete an entry from May 6th, 2022? |
| 2 | Complete a mental health survey | Show me how you would complete a mental health questionnaire and leave a note about your day. |
| 3a | View general reports | Compare your anxiety and stress scores for April 2022. |
| 3b | View previous surveys | How would you view the details and results of a mental health questionnaire completed on April 4, 2022 |
| 4a | Browse Workshops | Browse available events hosted by Health & Wellness and register in 'Better sleep introduction'. |
| 4b | Add workshop to calendar | Your registration/enrollment has been accepted. Check the details and add the event to your calendar. |
| 5 | Responding to messages | You have received a chat request from a health and wellness rep. Check the details and reply to the rep. |

Findings & Design Implications

Task Metrics Summary

A summary of the metrics for each task in our usability tests can be found below. Note:

- SD refers to standard deviation
- Satisfaction score scale [0-10]: With 0 being extremely unsatisfied, 10 being extremely satisfied

| Task Number | Completion Rate | Time Average (s) | Time SD | Satisfaction Score Average | Satisfaction Score SD |
|-------------|-----------------|------------------|---------|----------------------------|-----------------------|
| 1a | 100.00% | 59.40 | 37.37 | 7.60 | 1.64 |
| 1b | 100.00% | 19.00 | 16.96 | 8.90 | 3.67 |
| 2 | 100.00% | 78.00 | 23.87 | 7.70 | 1.15 |
| 3a | 100.00% | 43.00 | 17.18 | 7.40 | 1.08 |
| 3b | 100.00% | 11.80 | 6.30 | 9.00 | 0.00 |
| 4a | 100.00% | 22.60 | 17.04 | 8.50 | 1.41 |
| 4b | 100.00% | 17.60 | 9.32 | 8.20 | 1.30 |
| 5 | 100.00% | 23.40 | 19.42 | 8.10 | 1.08 |

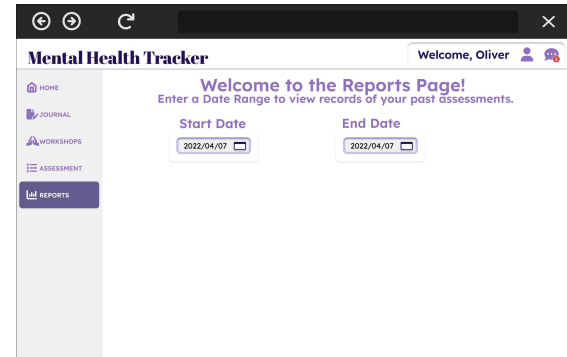
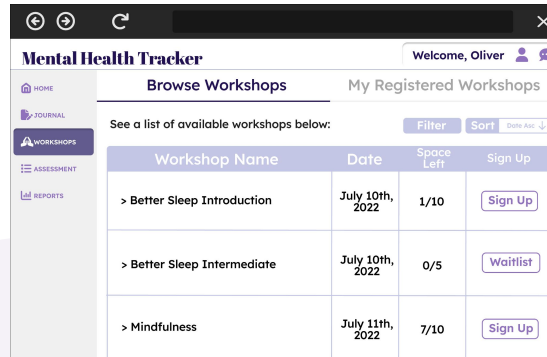
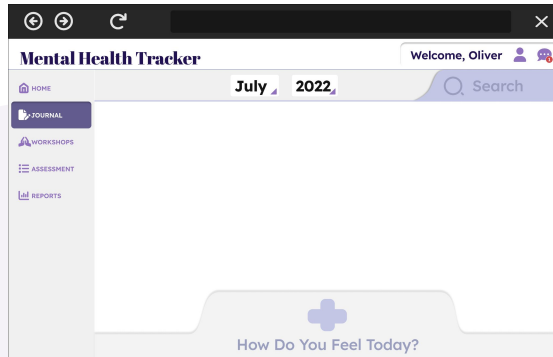
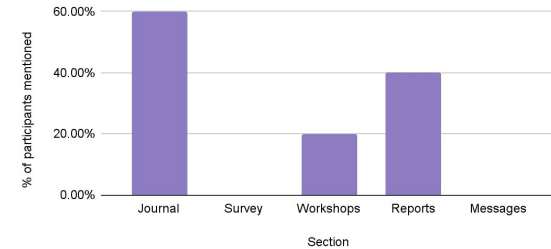
*Individual data can be found in the appendix

Findings & Design Implications

What worked well

- Users thought that the overall UI was easy to follow, with emphasis on the journal, workshop, and reports sections.
 - Frequency:
 - Overall: $\frac{4}{5}$ users
 - Interface images:

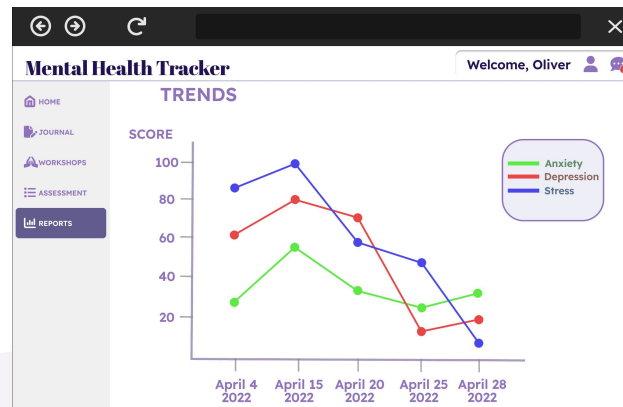
Sections mentioned the most by participants



Findings & Design Implications

What worked well

- Users commented that the layout of the trend in the reports section is clear and useful.
 - Frequency: $\frac{3}{5}$ users
 - Interface images:



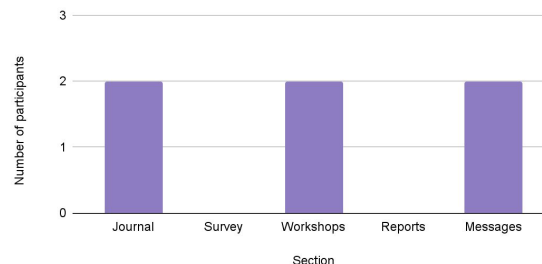
Findings & Design Implications

What worked well

From our post-survey, we found that:

- The journal, workshop and message functions were what our participants would use the most often.
- 4% of our participants answered that they would use our application. However, one specified that they would only use the workshop function.
- 4% of our participants would likely recommend to others.
 - One participant stated that it was conditional based on whether or not they've experience a positive impact on themselves.

Which function would the users find themselves using the most often?



Findings & Design Implications

Challenge: “Your upcoming Workshops”

Severity: **HIGH**

Observations

- ⅔ users clicked on “Your upcoming workshops” when asked to sign up for Better Sleep Workshop instead of the workshop button

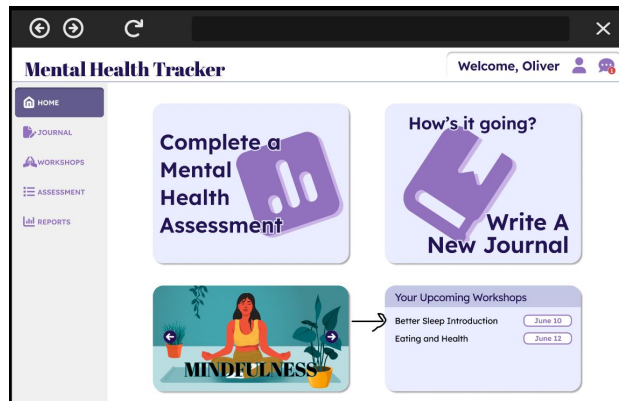
Causes

- P4 states “ Instinctually, I thought your upcoming workshop is all of the upcoming workshops”.

Recommendations

- Change the Better Sleep Introduction to other workshop with a different name from what we're telling them to sign up for.
- Change to 'Your registered upcoming workshops'

Video: https://drive.google.com/file/d/1HNRjnk0S6l0vprc_bxJgJxSz0-F2X_gh/view?usp=sharing



Findings & Design Implications

Challenge: Home Page Design

Severity: **HIGH**

Observations

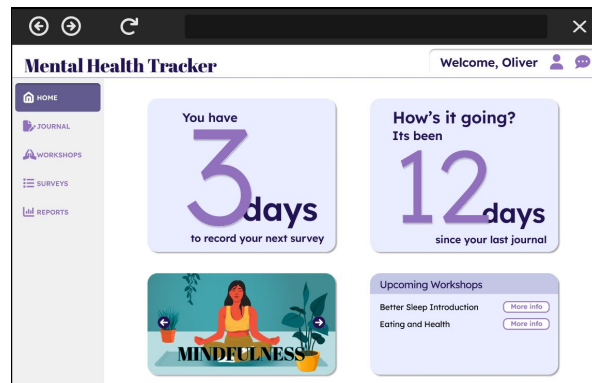
- Some users clicked on the Cards on the Home Page to complete tasks while others were unsure if they were clickable and utilized the Side Bar

Causes

- Not able to tell the top 2 cards are clickable on first glance
- Cards are taking over their attention away from the sidebar

Recommendations

- Redesign dashboard with more clear selections
- Make Title and rows clickable



Findings & Design Implications

Challenge: Journal Prompts and Emojis **Severity:** MED/HIGH

Observations

- Users spent a lot of time choosing what emojis to select
- Users were not sure how to interpret some Journal Prompts

Causes

- P1 and P4: States does not really understand what each emoji represents ("screaming?", I'm crying? Angry?")
- P1 confused on "what kind of connection" means

Recommendations

- Reword prompts
- P4: "Maybe add label underneath icons in journal homepage"



Video: <https://drive.google.com/file/d/1gozADB7JU3eK2PP1ucx4ozgP8GNHg62/view?usp=sharing>

Findings & Design Implications

Challenge: Surveys Page

Severity: **MED/HIGH**

Observations

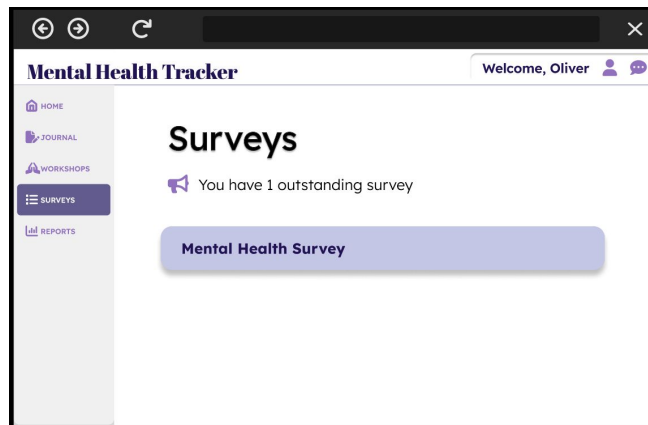
- Users used process of elimination when asked to complete an assessment

Causes

- P2: Was looking for something that said assessment. Clicked on surveys after realizing other buttons don't make sense.

Recommendations

- Rename “Surveys” to “Assessments”



Findings & Design Implications

Challenge: Selecting date with calendar

Severity: MEDIUM

Observations

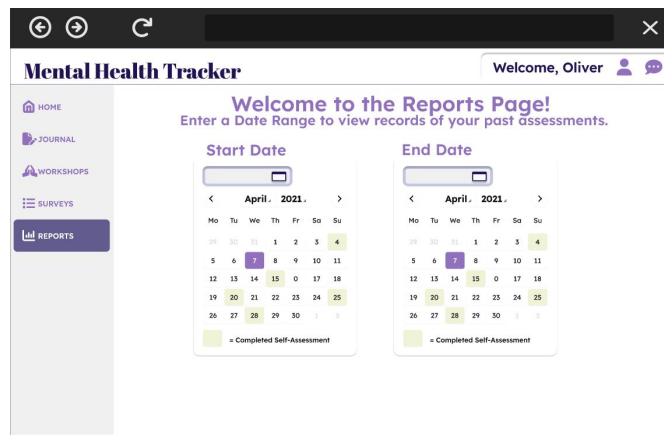
- 4/5 Users clicked on the date once instead of twice to select it and weren't sure how to proceed

Causes

- Expected one click would select it

Recommendations

- Allow one click to select Date



Findings & Design Implications

Challenge: Meaning of Trendline Numbers

Severity: MEDIUM

Observations

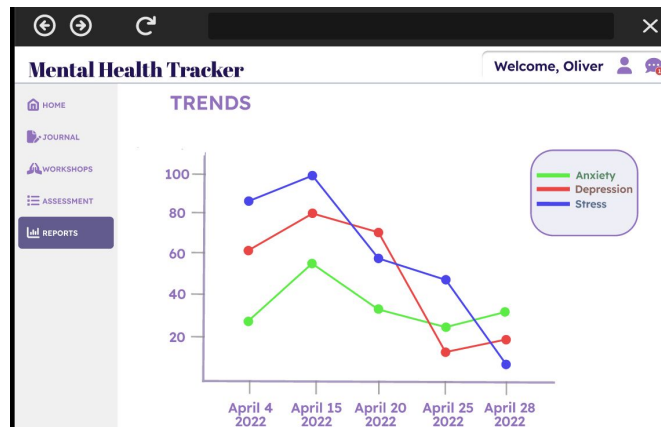
- P1 wasn't sure how to correlate Y-Axis numbers for the Anxiety and Stress lines

Causes

- User might have not understood after completing an assessment that their score is reflected on the trendline

Recommendations

- Add a label called "Score"



Findings & Design Implications

Challenge: Finding Reports

Severity: **MEDIUM**

Observations

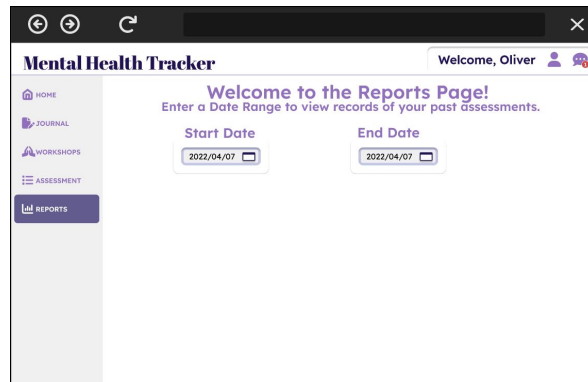
- P5 hesitated when asked to view a Report for April 2022.

Causes

- P5 states “ I was momentarily thrown off because I wasn't seeing anything ” but realized after there are no reports to show.

Recommendations

- Add a default state or Note of ‘No Reports’ if there is no data to show for a certain Date Range.



Video: https://drive.google.com/file/d/1Q42hrbCKMjCiirFJ0SF54YU7_UdpiJsF/view?usp=sharing

Findings & Design Implications

Challenge: Create new Journal

Severity: LOW

Observations

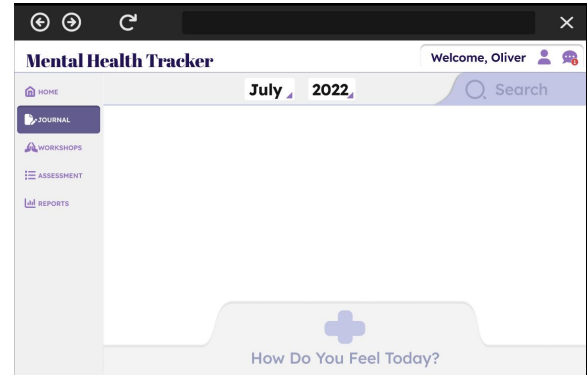
- One user hesitated before Clicking the + to write a Journal

Causes

- P4: "I would expect something to be on the middle of the page" for writing journals. "But think it's fine it displayed at the bottom, just need more contrast for noticing it quickly".

Recommendations

- Add more contrast to plus button or move it somewhere more in the center so it is more visible on first glance



Video: https://drive.google.com/file/d/1pYOcaUU2UFc4GhjJ_FJ6M_VNhgDaDkDi/view?usp=sharing

Findings & Design Implications

Challenge: Interpreting Assessment Scores

Severity: **LOW**

Observations

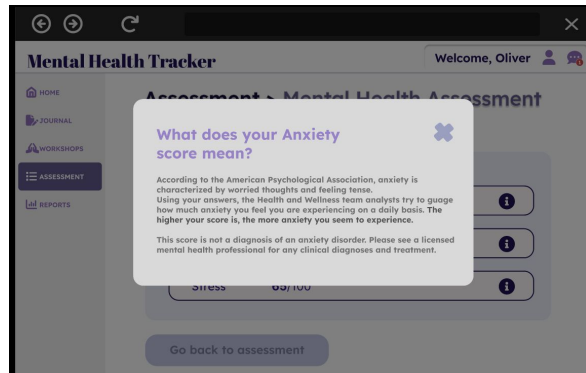
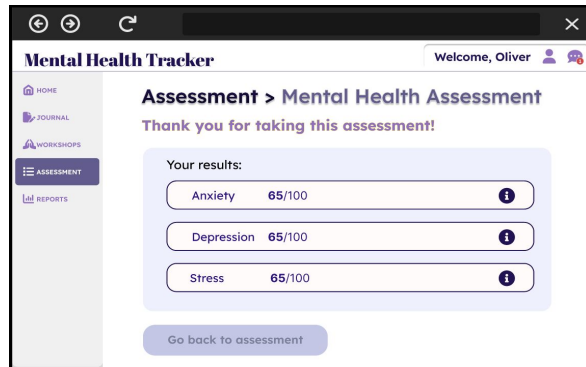
- P4 was not sure how to interpret the scores even after clicking the i button to view more info

Causes

- Participant did not read the entire score description as the score meaning is stated at the end

Recommendations

- Make the Score meaning description in the blurb more clear (move it to the top or bold text)



Findings & Design Implications

Challenge: Interpreted 'Accept' as accept Appointment **Severity:** **LOW**

Observations

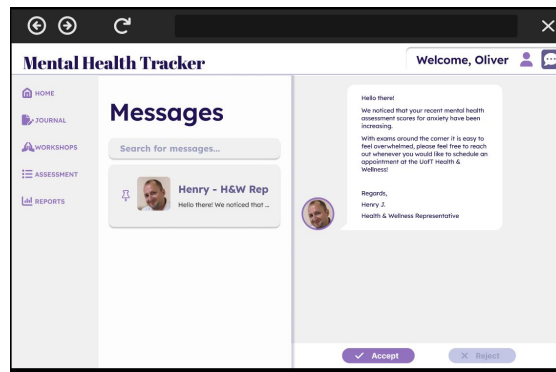
- P5 interpreted pressing 'Accept' button as accepting an appointment rather than a chat with H&W

Causes

- P5 states "It is not immediately obvious because chatbox is missing and there no prompt that says Accept Conversation"

Recommendations

- Rename buttons to 'Accept Conversation' and 'Reject Conversation'



Video: https://drive.google.com/file/d/1LJbvNieALCCr-V3cmrQt5g_rCfJANG1B/view?usp=sharing

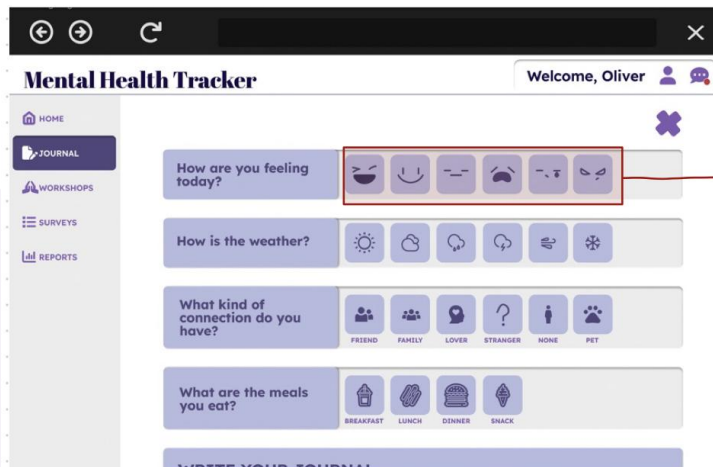
Findings & Design Implications

Recommendation Change Demonstration

1. **Challenge:** Confusion on how to interpret emojis. (Task 1a)

- **Section:** Task 1a
- **Severity usability issues:** MED/HIGH
- **Recommendation:** Adding labels to emojis

Before:



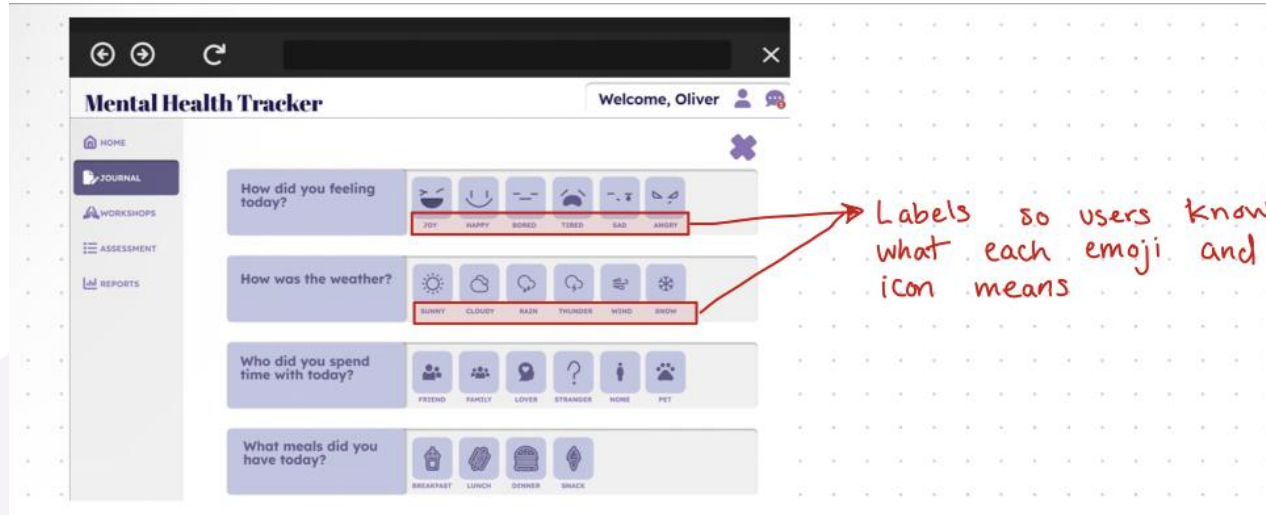
2/5 participants were unsure about how to interpret the emojis. Causing them to spend a lot of time trying to select an option.

Findings & Design Implications

Recommendation Change Demonstration

1. **Challenge:** Confusion on how to interpret emojis.

After:

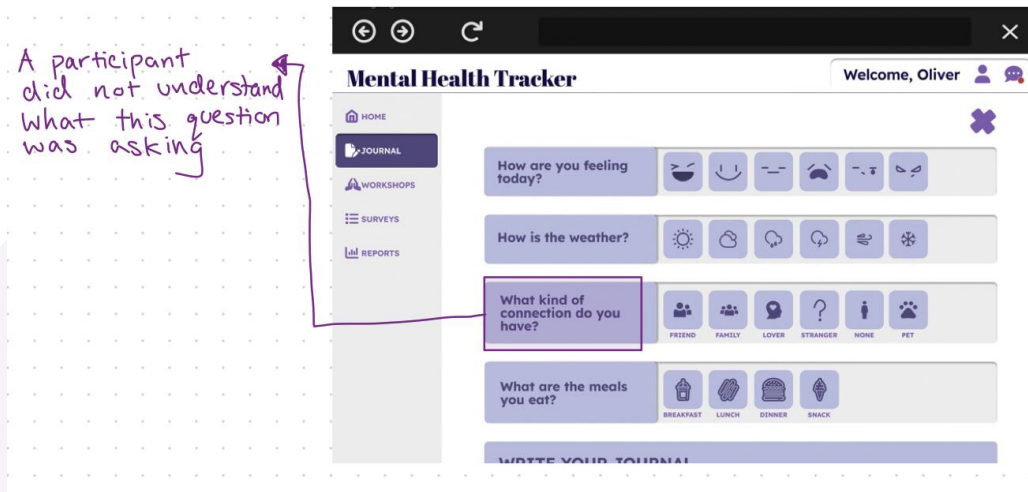


Findings & Design Implications

Recommendation Change Demonstration

2. **Challenge:** A participant did not understand a prompt in the journal.
- **Section:** Task 1a
 - **Severity usability issues:** HIGH
 - **Recommendation:** Rewording more clearly

Before:

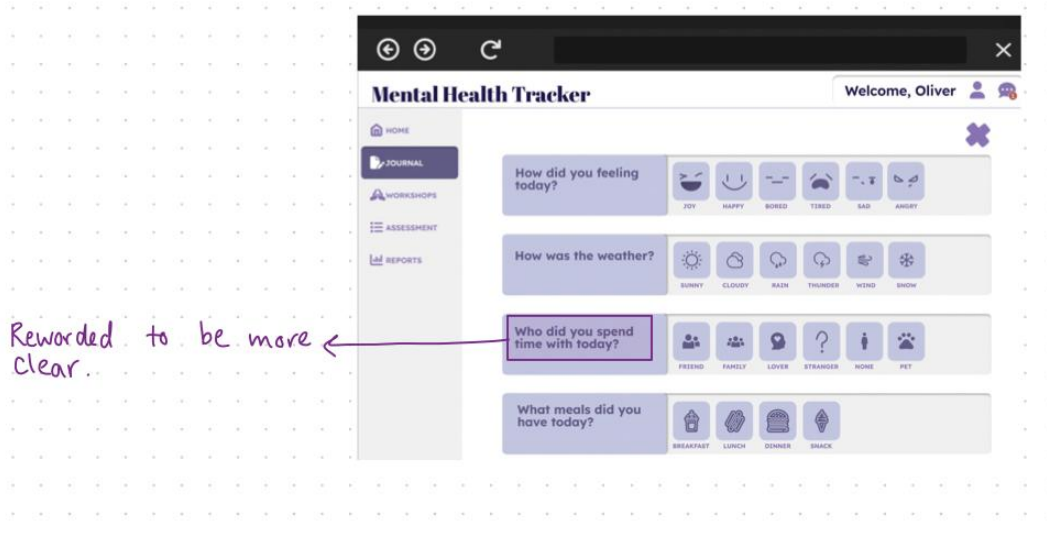


Findings & Design Implications

Recommendation Change Demonstration

2. **Challenge:** A participant did not understand a prompt in the journal.

After:



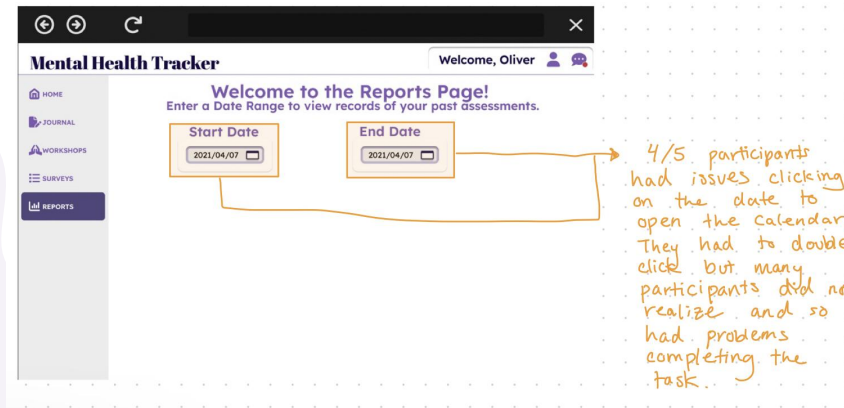
Findings & Design Implications

Recommendation Change Demonstration

3. **Challenge:** Many participants had issues opening the calendar in the reports section to select the dates. Many did not realize that they had to double click.

- **Section:** Task 3a
- **Severity usability issues:** MED
- **Recommendation:** Change to click once instead of double click

Before:

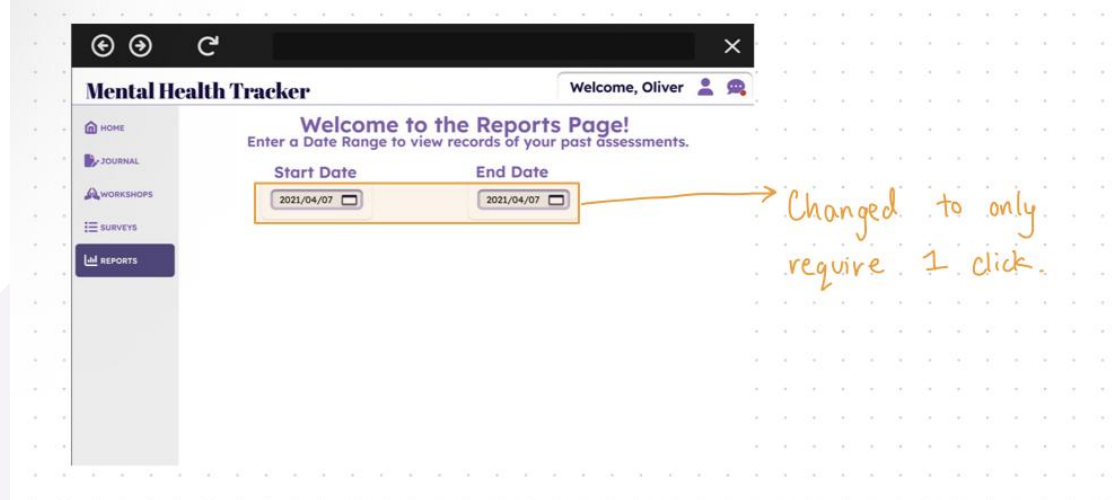


Findings & Design Implications

Recommendation Change Demonstration

3. **Challenge:** Many participants had issues opening the calendar in the reports section to select the dates. Many did not realize that they had to double click.

After:



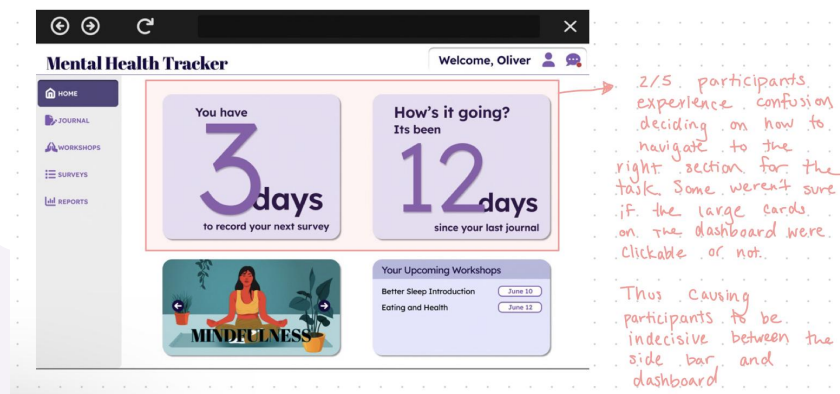
Findings & Design Implications

Recommendation Change Demonstration

4. **Challenge:** Participants experience confusion with deciding on whether to use the dashboard or the side menu to navigate. It was not clear to them whether certain areas of the dashboard were interactable.

- **Section:** General/all
- **Severity usability issues:** HIGH
- **Recommendation:** Redesign dashboard with more clear selections.

Before:

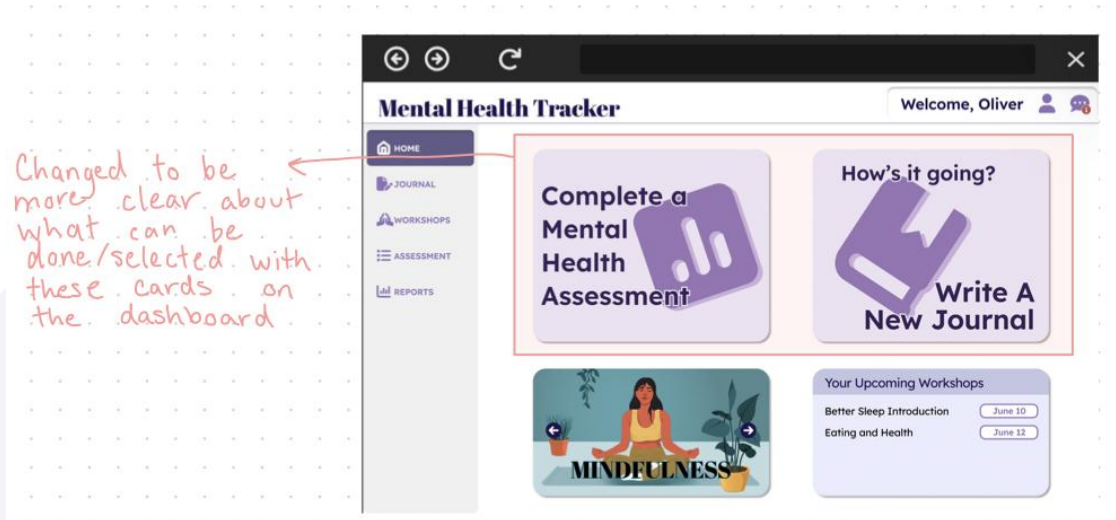


Findings & Design Implications

Recommendation Change Demonstration

4. **Challenge:** Participants experience confusion with deciding on whether to use the dashboard or the side menu to navigate. It was not clear to them whether certain areas of the dashboard were interactable.

After:



Research Limitations

- Participants may be hesitant to critique the product since there are other team members (observers) present or because they are being recorded. Similarly, they may also feel inclined to provide more positive feedback.
- Some task descriptions may be leading
- Since we were only able to gather 5 participants, the usability testing results are not representative of a larger population
- All our participants were STEM students aged 20-23, so our findings may not be generalizable to students in other programs or undergraduate students of different ages
- Some participants may have used similar interfaces or products before, so they might have a better intuition of the product
- The satisfaction score in the metrics table is subjective and based on the observer's interpretation

Reflection

Project Evolution

As we did our usability testing sessions, we made minor changes to the prototype based on feedback from the previous testing sessions. For instance, we improved the dashboard design to allow for easier navigation, and added labels for the emojis in the journalling section. Throughout the testing sessions, we saw that the completion time was gradually decreasing and users seemed to be more satisfied with the tasks. By asking users to think aloud when navigating our prototype, we also learned more about the participants' opinions regarding the prototype, and how new users would navigate through the prototype.

Reflection

Changes in Assumptions

From our usability testing sessions, we learned that some terms or visuals we used were not as clear as we had initially assumed. For example,

- Initially, we had called the self assessment a 'survey'. From the usability testing sessions, we learned that some users did not associate the word 'survey' with taking an assessment. After renaming the section to assessment, we noticed that users had a much easier time navigating to the self assessment page.
- Additionally, we learned that some individuals found the prompts for the icon selection and emojis in the journal section unclear. The prompts were then rewritten a few times to ensure they were unambiguous, and labels were added for each emoji.

Reflection

Ability to solve user problems

Since 80% of participants said they would recommend the product to others, our product has the potential to positively impact users by allowing them to monitor and take control of their mental health. Our participants also mentioned that the product would allow users to more easily sign up for workshops and speak to counsellors from U of T's Health and Wellness, so it would help users access the mental health services offered by the university. Therefore, our product has the ability to help solve the problems identified in our research.

Appendices

OLD FIGMA PROTOTYPE:

<https://www.figma.com/proto/yJqG18CDHWlnCYn5d5pHgP/high-fi?page-id=0%3A1&node-id=6%3A4&viewport=587%2C-379%2C0.17&scaling=scale-down&starting-point-node-id=6%3A4&disable-default-keyboard-nav=1&hotspot-hints=0&hide-ui=1>

UPDATED FIGMA PROTOTYPE:

[https://www.figma.com/proto/JNyNb6ZdLsHbGdqIHhfCbh/A7-\(B\)?page-id=0%3A1&node-id=6%3A4&viewport=702%2C-1739%2C0.47&scaling=scale-down&starting-point-node-id=6%3A4&show-proto-sidebar=1](https://www.figma.com/proto/JNyNb6ZdLsHbGdqIHhfCbh/A7-(B)?page-id=0%3A1&node-id=6%3A4&viewport=702%2C-1739%2C0.47&scaling=scale-down&starting-point-node-id=6%3A4&show-proto-sidebar=1)

CONSENT FORM:

<https://forms.gle/WXDZEysDs37KenoB6>

PRE-SURVEY:

https://docs.google.com/forms/d/1maNP323bUYtkDVaH3PvxXb-_9Fnmvf6EX7aTiqm2BnM/edit?usp=sharing

<https://docs.google.com/spreadsheets/d/1kMOxV7a6O5GTOZc8rqcgvip4gYjOTMKcnmzC1h4KktA/edit?usp=sharing>

OBSERVATION/METRICS/POST-SURVEY:

https://docs.google.com/spreadsheets/d/1BBHcOMIEn0B4B9tVWNDiBy98_aitYEtqDTm55ilxaHO/edit?usp=sharing

Assignment Work Attribution

CHEN, Yuxin (Katy)

- Added video-clip to where user quote is presented
- Completed the Appendices section
- Updated the observation sheet by re-watch all the recordings

EL BESTAWY, Mahmoud

- Added Exec summary, research method, and participant demographics sections.
- Coordinated task assignment for group

HOSSAIN, Farin

- Added Research Limitations section
- Added Reflection sections

LI, Zhuoqian (Allison)

- Worked with Naslin on Findings & Design Implications. Added what went well, metrics summary, and the demonstration sections.
- Recalculated metrics summary for more specific tasks

RAHMAN, Naslin

- Worked with Allison on on Findings & Design Implications.
- Added user challenges, causes, recommendations and quotes