

Project 3: Usability Testing and Report Plan

HCI 460 - Winter 2017

MoodPanda.com

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Executive Summary

MoodPanda is an application that serves its users by providing an online community where users are able to share their feelings and receive support. MoodPanda pitches its services as a place where people can go to share their feelings without added pressure of feeling judged. Our team set out to evaluate the usefulness and the efficiency of the MoodPanda application.

Our team conducted a usability test with four participants on the desktop version of the MoodPanda application, using four tasks: (1) Create Account, (2) Record Moods, (3) Comment on one post and “Hug” on another, (4) Explore tools and graphs.

After conducting our usability test we found the following:

- All participants were able to easily create an account. However, all participants found the UI to be confusing [(1) Create Account].
- Only one of the four participants were able to complete task 2 [(2) Record Moods]. This showed a major flaw in the functionality to update their mood.
- All participants were able to “Hug” and comment on another user's post. However, there was a lot of confusion on the “Hug” functionality [(3) Comment on one post and “Hug” another].
- All participants were able to navigate to the tools and graphs page but all participants did not find the graphs beneficial to their experience.

Overall, the results of our usability test confirmed that there are improvements that can be made on MoodPanda web application to improve the user experience of their web application.

Method

Purpose

The purpose of performing a usability test of MoodPanda.com (desktop version) is to assess how easily users can add and interpret their own data (in order to gain actionable insights into their own mental health over time), the ease of interacting with the MoodPanda community (both giving and getting social support), and their satisfaction level with the overall experience.

Problem Statement and Test Objectives

We are gathering both qualitative and quantitative data to determine the overall effectiveness of the desktop version of MoodPanda.com. Through this study, we seek to answer the following research questions:

- How easily can users create an account?
- How successfully can users navigate to the appropriate sections?
- Do users understand how to interpret their mood patterns using the charts and tools?
- How easily can users add a mood to their log?
- How easily can users interact with the MoodPanda community?
- How satisfied are users with their MoodPanda experience?

User Profile

We will be testing first-time users of MoodPanda with the following characteristics:

Characteristic	Desired # of participants
Participant type	
Pilot	1
Regular	4
Backup	1
Total number of participants	5
Digital note-taking frequency	
Infrequent: Less than 1 per week	2
Frequent: More than 1 per week	2
Digital calendaring frequency	
Infrequent: Less than 1 per week	2
Frequent: More than 1 per week	2

Age 18-33 34-49	1-3 1-3
Gender Female Male	2 2

Test Design (Methodology)

This usability study will gather data about the effectiveness of MoodPanda.com. Participants will complete the same tasks and will complete all the tasks in the same order. We will mostly be collecting qualitative data, but will also gather data about success rates and will use a Likert rating scale to determine how users felt about each task, as well as their overall experience with MoodPanda.com.

In this usability test, we will conduct at least five individual 30-minute usability study sessions. We will recruit our participants using the DePaul Participant Pool, as well as reaching out to colleagues who meet our criteria. Each participant will complete four task paths on the desktop version of MoodPanda.com. We will use 15 minutes of each session to explain the session to the participant, review basic background information, and conduct both post-task and post-test debriefing questions with the participant. We will allot 15 minutes of each session for the participant to carry out the study tasks.

Before each study, we will ask the participant to fill out a screener questionnaire to confirm their qualifications for the study (see Appendix, #1), any observers will go to their designated location, and the test moderator will set up the room and QuickTime recording system for the study session. The moderator will follow the Usability Test Script for each session (see Appendix #2). Once the study session begins, there will be an introduction in which the test moderator will tell the participant the importance of their involvement in the study and what the protocol is for the rest of the session. The test moderator will then ask the participant some background questions before asking the user to carry out the required tasks. The moderator will request that the participant uses the “think-aloud” protocol during task completion. This introductory part of each study session should take approximately 7 minutes.

Each participant is expected to go through a series of four tasks on the desktop version of MoodPanda.com. The participants will register and sign in, record four pre-determined moods, comment on two community members’ posts, and use graphs/tools to analyze their historical mood. While these tasks are being carried out by the user, the moderator will be taking notes on the user’s actions and thinking-aloud comments. It should take participants around 15 minutes to complete all four tasks.

After the user has completed all the tasks, the test moderator will conduct a post-test debriefing session, which should take about 8 minutes. The questions will be used to gather the participant's preferences and any other qualitative feedback they wish to share with us. The moderator can also use this time to follow up on any problems the participant experienced during the usability study session.

Each team member will be the test moderator of their own session with one participant (for a total of five sessions). That moderator will be responsible for conducting the test, as well as taking notes. Since each session will be recorded using QuickTime, the moderator will finish their notes after the usability test. During the pilot test, one person acted as the moderator and another student observed and took notes.

Task list

- Register and sign in
 - **State:** MoodPanda.com homepage is displayed with “Login” and/or “Start” buttons visible
 - **Success:** Participant clicks on login or start, then clicks create account, registers, and answers onboarding questions
 - **Benchmark:** Participant creates account without trying to create one while on the login screen, and the participant correctly answers the CAPTCHA within two tries
- Record four moods
 - **State:** Logged into MoodPanda.com with navigation and profile link visible
 - **Success:** Participant moves the slider to what they think is appropriate, they make a note containing the specified mood (with or without hashtag), and then updates/posts the mood
 - **Benchmark:** Participant notes mood and clicks the “Done” button on the next screen
- Interact with two other community members' public posts (comment and like)
 - **State:** Logged into MoodPanda.com with the navigation available
 - **Success:** Participant selects “World” from the top navigation, reads recently posted moods, finds two to respond to, posts a comment on one, and clicks the heart (hug) button on the other
 - **Benchmark:** Participant accesses the public feed on the first time, without clicking another navigation link first
- Use graphs to analyze historical mood
 - **State:** Navigation of “Analysis” dropdown is visible
 - **Success:** Participant selects “Analysis” dropdown, clicks “Mood Graphs”, and then views the graphs available
 - **Benchmark:** Participant clicks on “Mood Graph” without incorrectly selecting a different report first

Test environment

Our team's testing sessions will take place in multiple locations. Our testing locations are as follows:

- Usability Lab (Room 721) in DePaul's CDM building in Chicago, Illinois
- Office space in Arlington, Virginia
- Office space in Logan, Utah

The tools and technology we will utilize in each location is as follows:

- Windows or Apple laptop provided by the test monitor
- Wifi connection
- Apple or Android cell phone to record sessions and monitor reactions
- QuickTime Player for screen recording

Our team will use a controlled setting to conduct our testing sessions. We will maintain a controlled environment by only contributing the necessary tools to complete the testing tasks. We will ensure our users are able to sit at a desk or in a comfortable space in front of the provided laptop to test the application while providing minimal guidance.

Test Moderator Role

Our test moderator will be in the controlled environment with the user. He/she will use the Usability Test Script during the session (see Appendix, #2). The moderator will introduce the testing session and provide the user with necessary information such as the Consent Form, (see Appendix, #3) and timing of session. The moderator will also be taking notes of the user's experience throughout the testing session. Once the test moderator has introduced the testing tasks and given the user all of the necessary prerequisite information, the moderator will not likely interact with the user. The moderator will only intervene if necessary and will attempt to stay neutral to avoid swaying the user throughout the testing process.

Evaluation Measures

To understand the answers to the following questions:

- How easily can users create an account?
- How successfully can users navigate to the appropriate sections?
- Do users understand how to interpret their mood patterns using the charts and tools?
- How easily can users add a mood to their log?
- How easily can users interact with the MoodPanda community?
- How satisfied are users with their MoodPanda experience?

Our team will collect the following data:

Performance:

- Number of tasks completed without prompts or assistance
- Number of incorrect actions during flow of performing each task

Preference:

- Satisfaction of task completion
- Satisfaction overall
- Ease of task completion
- Ease of use overall
- Usefulness overall

Note: Preference data will be measured from think-aloud protocol and/or post-task & post-test questions

Report Contents

We will deliver a final report that:

- Explains the need for examining any usability issues with MoodPanda.com
- Describes what we would like to learn from the testing
- Provides the test objectives / research questions that illustrate what issues or questions need to be resolved
- Communicates the profile of our target user(s)
- Includes the test design, which describes our process for the testing sessions--as well as the testing roles of our group
- Provides the task list used for all testing sessions
- Provides detailed analysis of qualitative and quantitative data
- Communicates our findings, implications of the results, and recommendations--based on our data analysis
- Identifies any limitations of the study and provides recommendations for next steps

Results

All results are based on a sample of **four participants**.

Quantitative Results Summary

Test objectives	Results
How easily can users create an account?	<ul style="list-style-type: none"> ● All participants completed task ● Two participants experienced one error ● Two participants experienced no errors ● All participants rated ease-of-use as 6
How successfully can users navigate to the appropriate sections? <i>(Associated with all tasks)</i>	<ul style="list-style-type: none"> ● All participants completed three out of the four tasks ● Two participants did not complete task #2 (updating mood) ● Participants completed two out of four tasks with 0-1 errors (task #1: create account & task # 4: explore graphs) ● Participants completed two out of four tasks with a range of 3-19 errors (task #2: update mood, task #3: social feed)
Do users understand how to interpret their mood patterns using the charts and tools? <i>(Associated with task #4)</i>	<ul style="list-style-type: none"> ● All participants completed task ● All participants experienced no errors ● Two participants rated task as 6 (very easy) ● Two participants rated task as 5 or 7 (easy / extremely easy)
How easily can users add a mood to their log? <i>(Associated with task #2)</i>	<ul style="list-style-type: none"> ● One participant completed task ● The participant who completed the task experienced no errors ● Two participants rated task as 1 (extremely difficult) ● Two participants rated task as 3 or 5 (somewhat difficult / somewhat easy)
How easily can users interact with the MoodPanda community? <i>(Associated with task #3)</i>	<ul style="list-style-type: none"> ● All participants completed task ● Two participants experienced no errors ● Two participants rated task as 5 (somewhat easy) ● Two participants rated task as 6 or 7 (very easy)

How satisfied are users with their MoodPanda experience?	<ul style="list-style-type: none"> • Two participants rated experience as 5 (somewhat easy) • Two participants rated experience as 2 or 7 (somewhat difficult / extremely easy)
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Qualitative Results Summary

Measurements for qualitative data collection:

- Open-ended post-task feedback (ease-of-use and overall experience) for each task
- Open-ended post-test feedback (ease-of use, overall experience, and satisfaction)
- Think-aloud protocol data during task completion
- Behavior observations during testing (verbal and non-verbal)

How easily can users create an account?

(Associated with task #1)

Task completion:

All participants were able to successfully create an account--and each rated the task as “very easy” (6 out of a 7 scale).

Obstacles:

Page / section	Type of error	Number of participants experiencing difficulty
Homepage	Confusing labelling <i>(“Start” vs. “Login” buttons)</i>	1
Form	Wayfinding issue <i>(Tried to create account on the login form)</i>	1
Form	Confusing labelling <i>(Surname)</i>	2
Form	Captcha produced anxiety	1
Form	Confusion about which fields were required	1
Form	Insufficient error feedback	1

	<i>(System did not specify which field needed to be fixed and did not appear until after submitting the form)</i>	
Mood Entry Dialogs	Could not recall past moods	2
Mood Entry Dialogs	Confusing labelling <i>(no numbers on slider)</i>	3

Description of actions taken:

All participants completed the task in the correct sequence, and when asked about their overall experience with the task, two participants reported that it was relatively easy. However, each participant experienced some degree of frustration along the way. Two participants were confused from the start: one did not know if she should click the “Login” or the “Start” button--and another tried to sign up using the “login” box. The form slowed down two participants: one was confused by the gender options; another did not understand which fields were required--and when he triggered an error message during form submission, the messaging did not say which field was incorrect. The “Surname” field confused two participants (ie: what it means and why it was needed). Two participants were surprised when the mood entry dialogs triggered--and that the first question required them to remember their mood from two weeks prior. Each did not think this was possible. Additionally, the fact that there was no scale on the mood slider caused confusion for one participant.

Quotes from participants:

"So first looking at it [the home screen], my eyes go in two directions, first log in button and then the start button." - Katie

"It seemed intuitive, it follows what I expected." - Katie

"The wording of the surname was weird and I had to think for a second like, 'are they asking for my first initial of my last name?'" - Katie

How easily can users add a mood to their log?

(Associated with task #2)

Task completion:

Only one participant completed the task--and he did so with only one error. All other participants failed to complete the task since they could not figure out how to log moods retroactively. (The task asked them to add four moods from different prior times throughout their day).

Obstacles:

Page / section	Type of error	Number of participants experiencing difficulty
Overall	Navigation and Labelling issues <i>(Could not easily find "Update" button)</i>	4
"Update" Dialog	Confused/annoyed because the only moods to choose from were "happy" & "unhappy"	1
"Update" Dialog	Insufficient feedback <i>(Whether something was entered/saved)</i>	2
"Update" Dialog	Confusing labelling <i>(no numbers on slider)</i>	3
"Update" Dialog	At each mood entry prompt, had to clear out old data left in the form	1
Date/Time Picker	Navigation issue <i>(Difficult to find where to enter past times)</i>	3
Date/Time Picker	Confusion with "clickability" <i>(Frustrated because only the calendar icon was in the clickable area)</i>	1
Feed	Confusion with "clickability" <i>(Items in summary bar at top)</i>	1
Feed	Data visualization issue <i>[Did not know what the deviation mood graphs were in the social feed (in each entry)]</i>	1

Description of actions taken:

All participants were able to update their mood without inputting the times, but they still experienced obstacles with this portion of the task. Two participants had difficulty locating the "Update" button. One participant cited the issue as placement on the page and both cited the wording of the button. Both spent time in the "Analysis" section before they found the update button. They finally found the correct button, but when they could not find where to update the individual times, one navigated to the "My Feed" section and the other to "Advanced Settings." Two participants quickly found the "Update" button, but immediately backed out, not seeing where to enter times. Like the participants who took longer to find the "Update," they spent time in the "My Feed" and "Advanced Settings" sections. Additionally, for two participants, the mood entry dialogs retained their information from previous updates, which required refreshing the page. Similar to an issue with the "create account" task, one participant found it difficult to judge what number was initially set to.

Quotes from participants:

"I don't see any place for me to easily choose the time of day. This is more frustrating than relieving." - Luck

"I felt really confused trying to complete this task." - Luck

"If I update it without refreshing the page or moving to a different page it will just post the same thing twice." - Frank

"I don't like how the mood number doesn't show up in the bar and it only shows up in the button. I also didn't like the "show additional information" task, but once you got it it was easy. Discoverability was low." - John

How easily can users interact with the MoodPanda community?

(Associated with task #3)

Task completion:

All participants were able to interact with the MoodPanda community successfully. Two participants did so with errors. One of the participants had an issue with finding the community, and the other had an issue with understanding the concept of the "hug".

Obstacles:

Page / section	Type of error	Number of participants experiencing difficulty
Community feature overall	Confusing labelling (<i>"My Feed" was not the view to see other's post</i>)	1
Community feature overall	Did not like clicking "load more" every couple posts	1
Community feature overall	Hesitant because everything is public	1
"Comment" feature	Hesitant because comments are public	1
"Hug" feature	Incorrectly thought a comment was required to "hug" a post	2
"Hug" feature	Could not exit out of the "hug" dialog beneath the user's post	1

"Hug" feature	Insufficient feedback (<i>adding a "hug"</i>)	2
"Hug" feature	Could not undo a "hug"	1

Description of actions taken:

All participants were eventually able to complete the task of giving a "hug" and adding a comment on another user's mood in the MoodPanda community. All but one user was able to navigate to the MoodPanda community without any issues. One user thought that the "My Feed" link would navigate to the MoodPanda community and spent a bit of time figuring out that it was instead the "World" link. One user had an issue with the "hug" feature, this user spent time trying to figure out if a comment was necessary and trying to back out of the comment. Two out of four users were able to complete this task without any errors.

Quotes from participants:

"After I give the hug I don't need this thing [dialog beneath] there still. I just want to see that my hug has been added. Here I feel that I have to add something." - Katie

"My hug won't be recorded until I add in a reply, but now I'm realizing I think it recorded the hug and I don't have to leave a reply. I think." - Katie

Do users understand how to interpret their mood patterns using the charts and tools?

(Associated with task #4)

Task completion:

All users were able to navigate to their charts and tools. One of the four users spent very little time analyzing the graph, and all users did not see the usefulness in the graphs and tools. All users had questions about how the graphs and tools are useful for MoodPanda users.

Obstacles:

Page / section	Type of error	Number of participants experiencing difficulty
Overall	Information not helpful / relevant <i>(Same information repeats on the graphs and that they could be more comprehensive)</i>	2
Overall	Information not helpful / relevant	1

	<i>(The only thing they wanted to see was to see how that mood compares overall the past week/month)</i>	
Overall	Information not helpful / relevant <i>(Did not spend much time on each graph)</i>	1
Overall	Data visualization issue <i>(Hard to compare data)</i>	2
Main graph	Confusion over how many people's data was the world aggregate and where that data was coming from	2
Main graph	Information not helpful / relevant <i>(Thought global mood throughout all the graphs was interesting, but not useful)</i>	2
Main graph	Information not helpful / relevant <i>(Wanted to be able to see a daily graph instead of just weekly and monthly graphs)</i>	1
Main graph	Inconsistent labelling <i>(legend and graph)</i>	1
Main graph	Saw all 4 entered moods (task 2) on one tool tip & was annoyed that couldn't change the times	2
Main graph	Data visualization issue <i>(Could not see mood fluctuation for the moods entered in task #2, they all showed up at the same data point)</i>	2
"Best & Worst Days" graph	Data visualization issue <i>(not communicating effectively)</i>	2
"Best & Worst Days" graph	Data visualization issue <i>(no x & y axes)</i>	1
Heat Map	Information not helpful / relevant	1
Heat Map	Thought hourly heat map was most useful due to limited data so far as a new user	1
Heat Map	Data visualization issue <i>(not communicating effectively)</i>	1
"Summarized" graph	Data visualization issue	1

	<i>(Only understood scale because "Best & Worst Days" was measured for the week)</i>	
"Summarized" graph	Did not understand what the "average" was	1
"Summarized" graph	Data visualization and labelling issue <i>[The data on the "best and worst days" graph & the "summarized" graph did not match (eg: use of the word 'ok')]</i>	1

Description of actions taken:

All users were able to successfully navigate to the graphs and tools page. One user did not spend a lot of time looking at the page. Three of the four users did not understand what the maps were for and how they portrayed information. One user did not understand the comparison of their mood to the "World". The visualizations were not clear to all the users and overall did not deem useful to the users in terms of analyzing their mood.

Quotes from participants:

"It's a little weird that they don't show the daily fluctuation [in the daily analysis graph]." - Frank

"I think [the best and worst days graph] trying to show the comparison between happy and unhappy and how those weigh on each other, but I wouldn't say this is effectively communicating anything. I also would want to know, they don't have any labels like the x and y axis. Is this out of 10 or 5?" - Katie

"What is the measure for the heat map? Is the y axis or x axis hours? It's just silly and not telling me anything." - Katie

"I thought the task was fairly simple and self explanatory, but I don't see the point of the graphs." - Luck

How successfully can users navigate to the appropriate sections?

(Associated with all tasks)

Task completion:

All four participants were eventually able to navigate to the appropriate sections in order to (attempt to) complete tasks. Only one participant made an error while navigating to the "Create Account" page in task 1, three out of four participants made errors while attempting to find the "Update" button in task 2, no participants made errors navigating to the "World" page to complete task 3, and no participants made errors navigating to the "Analysis" page to view graphs for task 4.

Obstacles:

Page / section	Type of error	Number of participants experiencing difficulty
Homepage	Confusing button labelling <i>(in order to create account)</i>	1 (noted elsewhere in document)
“Create Account” Form	Wayfinding issue <i>(Tried to create account on the login form)</i>	1 (noted elsewhere in document)
Update flow	Navigation and Labelling issues <i>(Could not easily find “Update” button)</i>	4 (noted elsewhere in document)
Update flow	Navigation issue <i>(Difficult to find where to enter past times)</i>	3 (noted elsewhere in document)
My Feed	Confusing labelling (<i>“My Feed” was not the view to see other’s post</i>)	1 (noted elsewhere in document)

Description of actions taken:

While completing the first task, three of the participants got to the “Create Account” form by clicking on the “Start” button on the home screen. Of these three participants, only one attempted to create a new account by inputting their information in the login box before realizing that he needed to click the create account link on that page. The fourth participant got to the “Create Account” form by first clicking the login button first and then clicking the create account link.

Correct navigation when attempting to complete the second task proved difficult for three participants. One of these participants attempted to make a new data point on the mood analysis graph by clicking on it. When this didn’t work, he first scrolled down the mood graph page looking for an “Add New” button, then he looked on the “My Feed” page, in the “Analysis” dropdown menu, the “Me” page, the “Account” dropdown menu, on the mood graphs page again, and on the “My Feed” page again before finally finding the “Update” button at the top of the page. The other participant who had difficulty finding the “Update” button scrolled through the mood graph page, clicked the analysis dropdown menu, and went to the “Happy Times” page. From this page, the participant found the “Update” button at the top of the page. The third participant had a much less difficult time finding the “Update” button than the other two participants mentioned but still made an error before finding the button. This participant first clicked on the “Account” button and then saw the “Update” button. Our fourth participant was able to navigate to the “Update” button without any errors when attempting to complete the second task.

Only one participant made an error before correctly navigating to the “World” page to complete task three. This participant went to the “My Feed” page first and clicked the “Show Older” button twice before navigating to the “World” page to view other user’s posts.

All four participants correctly navigated to the page that showed the graphs that illustrated their moods. All participants clicked the “Me” button and then the “Analysis” dropdown menu and looked through the options there to view different mood graphs and analyses. Only one user navigated away from this page after getting to it. This user went to the “My Feed” page before returning immediately back to the “Analysis” dropdown menu and choosing “Mood Graphs” to view the main mood graph.

How satisfied are users with their MoodPanda experience?

(Associated with all tasks)

Overall Satisfaction:

None of our test participants were extremely satisfied with MoodPanda.com. Two participants rated their overall satisfaction with MoodPanda.com as 5 out of 7, moderately satisfied. One participant rated their satisfaction as 4 out of 7, neither satisfied nor unsatisfied, and the other participant rated their satisfaction as 2 out of 7, very unsatisfied. All of our participants experienced trouble while completing tasks that led to their dissatisfaction as well as finding some aspects of MoodPanda.com unnecessary and difficult to understand.

Obstacles:

Page / section	Type of error	Number of participants experiencing difficulty
Update Mood Dialog	Core tasks difficult to complete (Retrospectively add times to mood tracker)	2
Overall wayfinding	Core tasks difficult to complete / Wayfinding ("Update" mood)	3
Social Feeds	Core tasks difficult to complete (Loading time is too long to easily scroll through posts)	1
Overall	Application is too frustrating to be helpful / relevant to participant / unintuitive	3
Analysis	Data analysis not helpful / relevant (Wants to see "daily" analysis)	1
Analysis	Data analysis not helpful / relevant	2

	(Hard to compare)	
Overall	Application performed as expected	1
Social Feeds	Feature not beneficial (Social feed)	1
Overall	Application does not show clear benefit of use	2
Overall	Layout not pleasing	1
Overall	Privacy concerns	2

Quotes from participants:

"It just isn't easy to use. It annoys me that there's only happiness level when there's so many other ways to measure mood. It simplifies mood too much and you're not able to extract useful info from it." - Katie

"If I'm putting myself out there in the context of I want to add in moods throughout the day, I want it to be super-quick and intuitive. I just want to input information and be done with it in 10 seconds. And I don't think I could immediately do that with this. I couldn't figure out how to input the times and realistically maybe I won't be able to add in my mood at the exact time I'm feeling it. Maybe I want to add it in at the end of the day." - Katie

"I don't understand what it's tracking or what mood tracking would do for people. I don't understand the concept of the page or web application. I don't see the benefit for people. It seems more frustrating than useful." - Luck

Findings and Recommendations

Summary

Below is a summary of the most important usability issues discovered during our study, along with the associated severity/priority rating.

[HIGH]

- The button to launch the “Update” modal is not prominent.
- The analyzation tools and charts aren’t easily understandable.
- There is confusion between the Login form and the Create Account action.

[MEDIUM]

- Posting a previous mood is difficult to find.
- Mood scale slider is inexact.
- The “Hug” interaction doesn’t follow industry standards.

[LOW]

- The label of the “My Feed” is not appropriate.
- The form doesn’t specify which fields are required.

[POSITIVE]

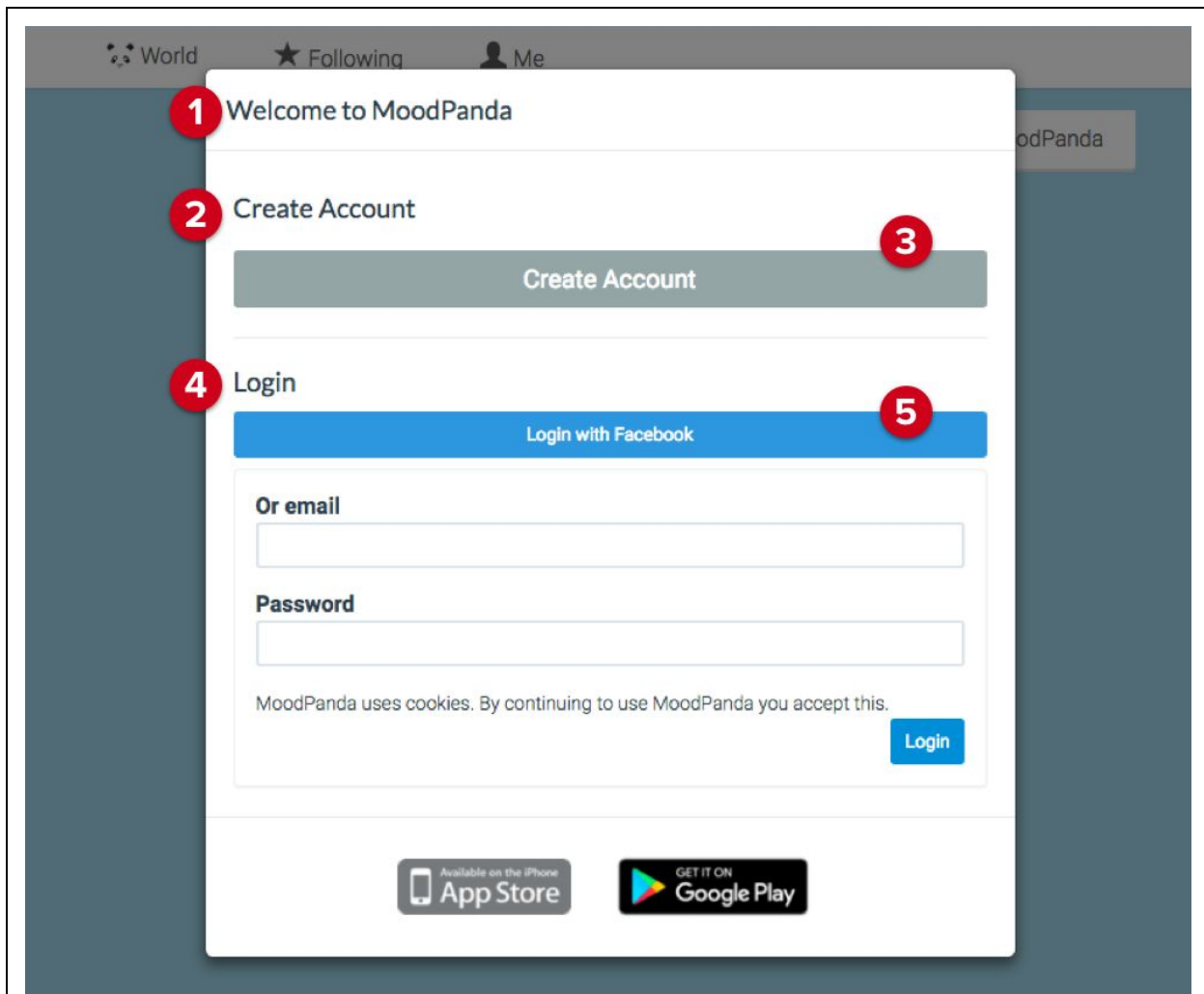
- The account creation form is standard.

Details

In the tables below, we organized our findings and recommendations by our research objectives. Each recommendation is illustrated with an annotated mockup.

How easily can users create an account?	
Account Creation Process	
Finding	POSITIVE Standard account creation form. All participants were able to complete the account creation process fairly easily. In fact, 3 of 4 participants commented that the form was standard and easy to understand as part of the account creation process. <i>"It was relatively easy, nothing out of the ordinary"</i>

Login vs. Create Account	
Severity	HIGH
Finding	<p>Confusion between the Login form and the Create Account action. During the account creation process, 2 of 4 participants misunderstood the Login page as the account creation page. One participant went as far as “creating” their login credentials on the Login page. When the system alerted them that their login attempt was invalid, they realized it was not the correct form to create the account.</p> <p><i>“Oh, create account, my bad.”</i></p>
Source	When linked from the homepage, users click on the “Start” button, but then they are presented with the “Login” page. There is a lack of prominence of the “Create Account” action on the Login page.
Recommendation	Provide better differentiation between the login and account creation flows. Create better separation between the two flows by increasing spacing and arranging “Login” label directly above the login form. Call out the Create Account button by increasing the size of the button and label.



- 1 Change "Login" to "Welcome"
- 2 Add "Create Account" header to the create account section
- 3 Increase font size of "Create Account" button
- 4 Add "Login" header to the login section
- 5 Move "Login with Facebook" button into the login section

Required Fields	
Severity	LOW
Finding	<p>The form doesn't specify which fields are required. One participant did not fill out one field when they were creating their account. When they tried to submit it, it popped up with an error message.</p> <p><i>"I thought [the surname field] was a 'Mr.' or 'Mrs.' thing that was optional to fill out but then it wasn't."</i></p>
Source	There are not labels to specify which fields are required.
Recommendation	Denote which fields are required. Place an indicator on the fields that are required. In this case, since all of them are required, possibly make a note at the top of the form.

World ★ Following Me

Create MoodPanda Account

1 All fields are required.

Your First Name * **2**

Your Surname Initial *

Gender *
Female

Year of Birth *
2004

For security this must be correct

- 1 Add "All fields are required" note at the top of the form
- 2 Add asterisk to denote required fields.

How successfully can users navigate to the appropriate sections?

My Feed

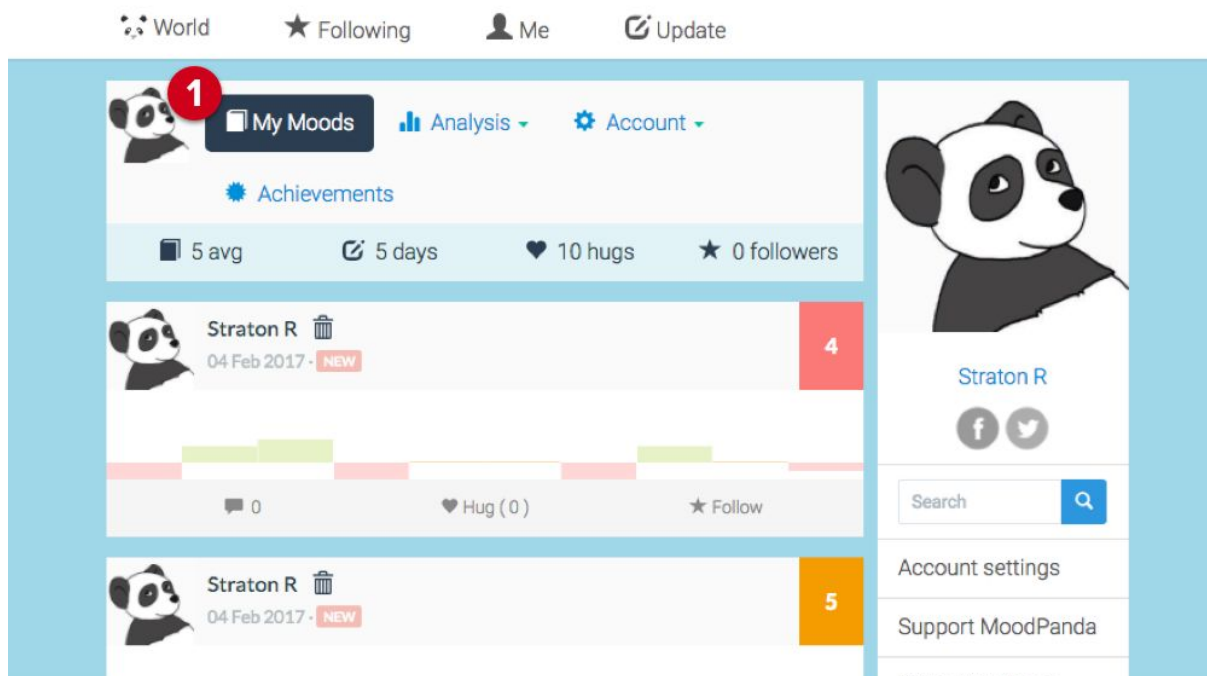
Severity **MEDIUM**

Finding **The label of the “My Feed” is not appropriate.** 2 of 4 participants mentioned that the concept of MoodPanda’s “My Feed” section did not match their mental model they had of a “feed” they were accustomed to by using other products.

"I thought the public feed would be under "My Feed", so I thought there was where i could see people's post"

Source A feed means something different on other sites. Twitter and Facebook use the term “feed” as a list of other people’s posts. In the context of MoodPanda, however, it is referring to the user’s own posts.

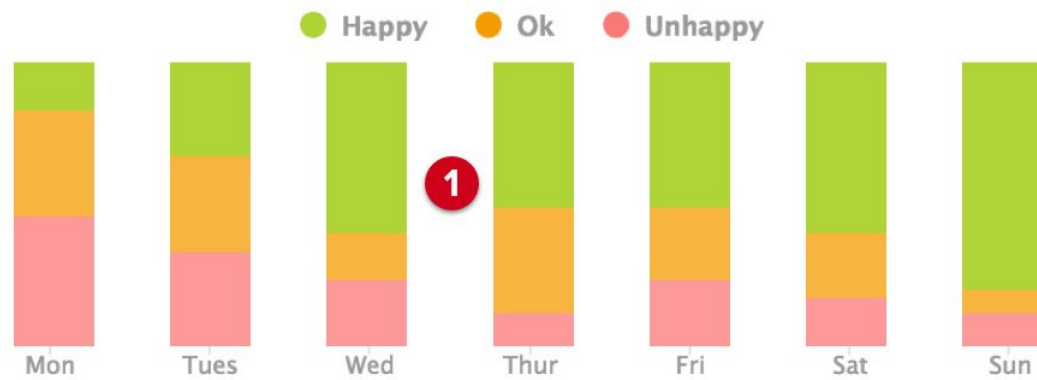
Recommendation **Relabel the “My Feed” page and navigation.** Changing the label away from the mental model people are accustomed to will help them better understand the concept of the feature. Some suggestions include: Timeline, My Moods, Journal, Diary, Past Moods



1 Change “My Feed” to “My Moods”

Do users understand how to interpret their mood patterns using the charts and tools?	
Comprehension of Graph Visualizations	
Severity	HIGH
Finding	<p>The analyzation tools and charts aren't easily understandable. All 4 participants verbalized their frustration with the tools and charts. Responses ranged from invaluable to incomprehensible. Many of the charts do not allow for quick interpretation or provide meaningful take-aways.</p> <p><i>"I don't see the point of the graphs."</i></p> <p><i>"It's not difficult to look through your mood, it's just that not many of the graphs make much sense."</i></p> <p><i>"It's repeating the same information to me over and over again."</i></p> <p><i>"Thought it was pretty easy. Straightforward information." ... Do you think that information is valuable? "Sure. Haha. If I want to compare my happiness with the world's." ... Is that something useful to you? "Not really."</i></p>
Source	While some of the current data is useful, the visualization of such data is in a way that it becomes difficult for users to understand.
Recommendation	<p>Modify the visualizations to improve comprehension and value. Some charts need to be edited to provide for easier comprehension. This can be done by focusing on the most important take-aways and designing the chart in a way that focuses on a single purpose. It should be clear to the user what they should be inferring from their data.</p> <p><i>Below are a few examples of how the charts could be re-visualized:</i></p>

Best and worst days



1 Remove current chart

Replace with a bar on each day of the week

Each bar represents 100% of the day's mood, split between the ranges

This enables the users to identify trends by comparing each day's moods

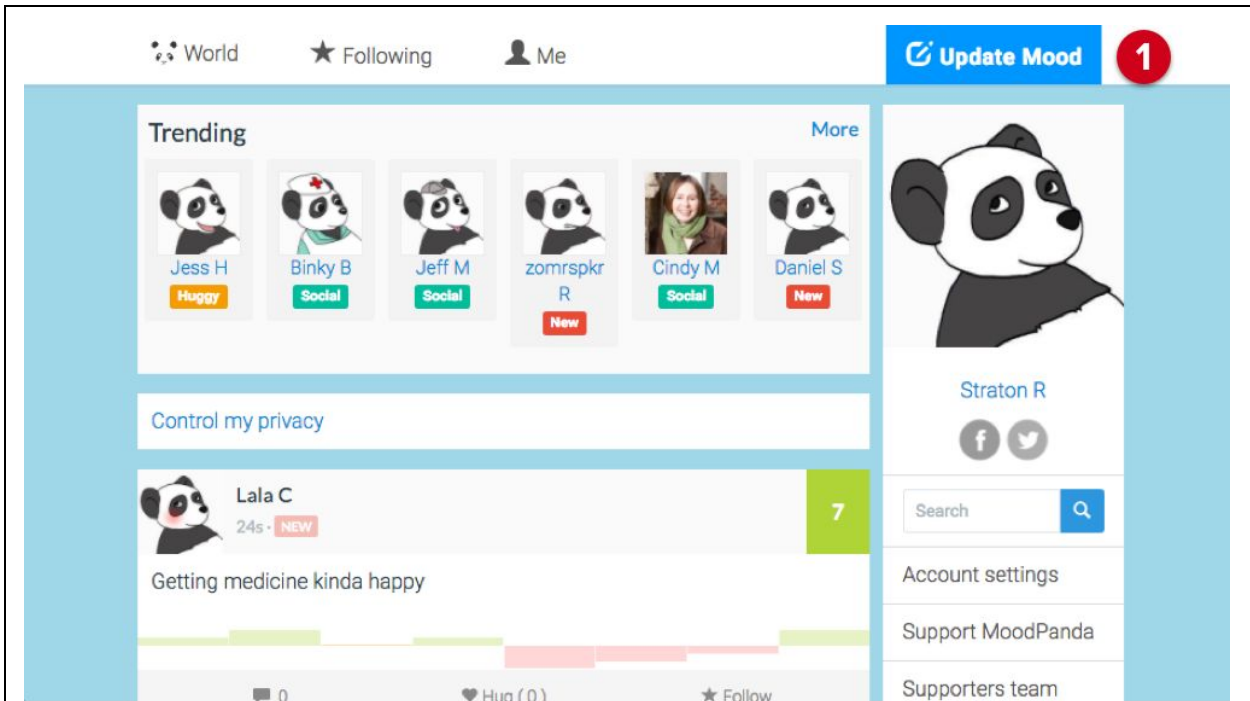
Hourly HeatMap

This will build as you post more updates



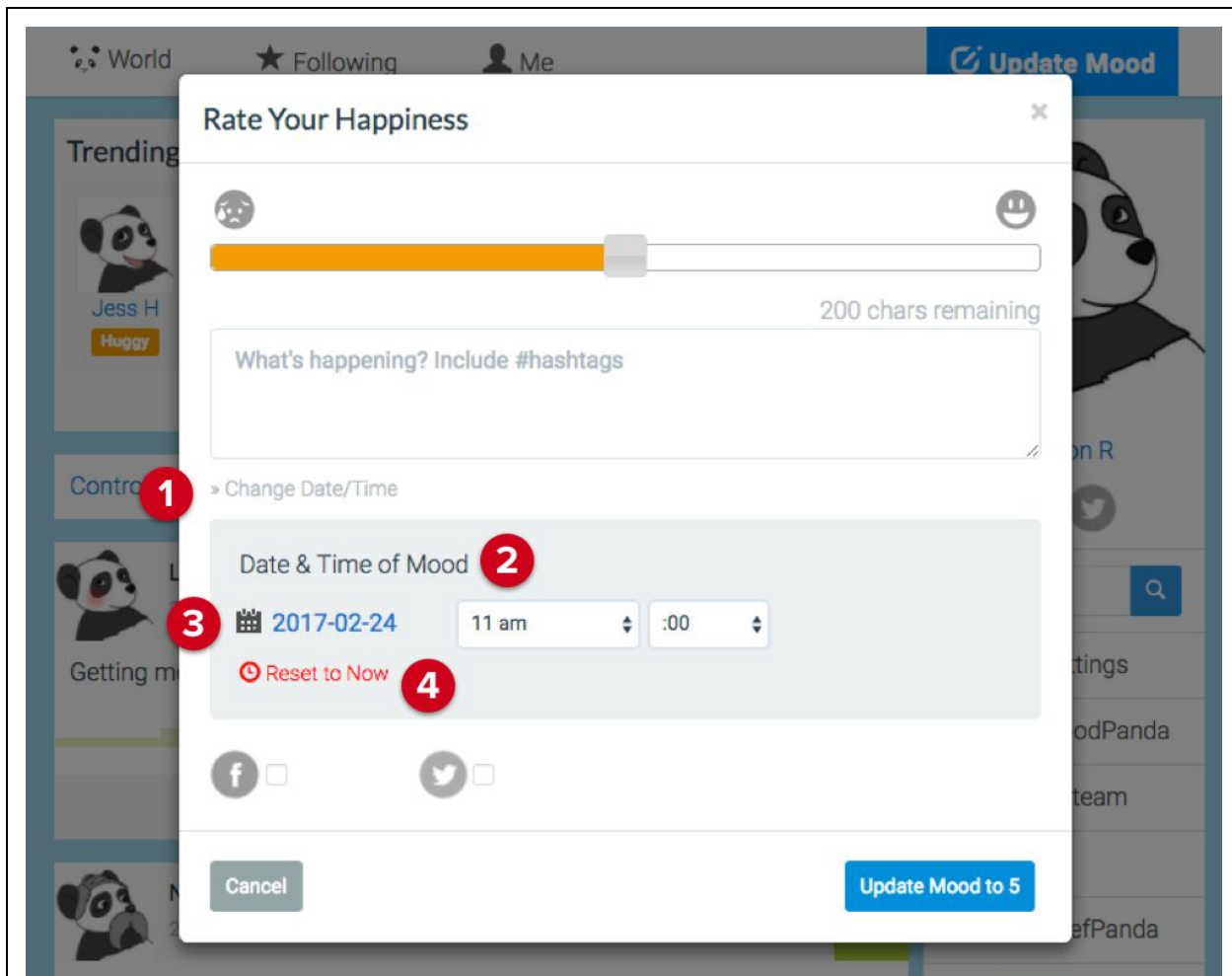
- 1 Move legend to the top
Replace the two ends of the spectrum with conversational labels
(Less Happy to More Happy VS. 0 to 10)
- 2 Change hour labels to US-standard times and add "Noon" in the middle
- 3 Add axis titles "Time of Day" and "AM/PM"

How easily can users add a mood to their log?	
“Update” Button	
Severity	HIGH
Finding	<p>The button to launch the “Update” modal is not prominent. All participants experienced difficulty in locating the button to track their mood. As the primary action being performed on MoodPanda, this should be the simplest task to accomplish. However, one participant in particular correctly clicked on the button, but closed the modal because they did not think it was the correct page due to the title on the modal.</p> <p><i>“I don’t know how to get back to that prompter.”</i></p> <p><i>“I think this is the right place [to update mood]”</i></p> <p><i>“It was fine once I found the update button.”</i></p> <p><i>“This is asking for my happiness...?”</i></p>
Source	The button is not prominent enough. The labels may also be misleading – MoodPanda tracks “moods,” but asks you to “update” your “happiness rating.”
Recommendation	The Update button should be changed. The button label should be changed to “Update Mood.” The button should also be made larger and more prominent by increasing the size, changing the location, and changing the color. The terms used to describe this feature should be standardized throughout the app. Also, the title of the modal should match the button – “Rate Your Happiness” can be changed to “What’s your mood?” (or similar).



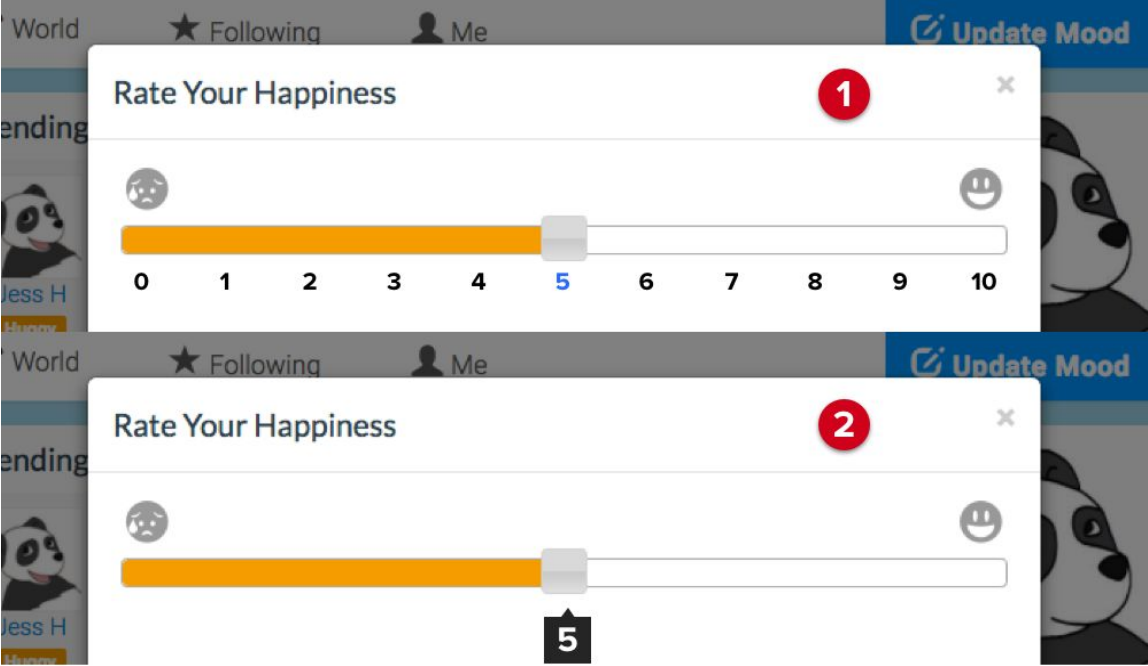
- 1 Label is changed to “Update Mood”
Increased size of button and text size
Button has been shifted to a right alignment
Background color changed from white to a bright blue

Manually Setting Time	
Severity	MEDIUM
Finding	<p>Posting a previous mood is difficult to find. All participants had difficulty discovering where to change the time when posting a mood they had at a previous date or time. Only one participant was able to find where to enter the manual time.</p> <p><i>"I don't see any place for me to easily choose the time of day. This is more frustrating than relieving."</i></p> <p><i>"I don't quite understand why they don't have a time tracker where you can put in the time or if they do it's not really easy to find."</i></p> <p><i>"Right now I just feel a little bit stuck, because I don't know how to enter the times."</i></p> <p><i>"I think this is the right place [to update mood], but I don't see where to set the time."</i></p>
Source	This time setting is hidden under the "Show Advanced" toggle when within the "Update Mood" modal. There are no labels to indicate where to find the feature. There are also no instructions or inferences that can be made as to what they need to do to change the time.
Recommendation	Within the "Update Mood" modal, modify the label of the button to access the time settings. Change "Show Advanced" to "Change Date/Time." All add a label to explain what the date/time picker control does (e.i. "Time of Mood"). Also consider having this option available by default, depending on how frequently it is being used.



- 1 Change "Show Advanced" to "Change Date/Time"
(Also, consider having this expanded by default when opening the modal)
- 2 Add heading of "Date & Time of Mood"
- 3 Change color of the the clickable link from black to blue
- 4 De-emphasize the "Reset to Now" button by styling it like a link
(Also, hide the link when the current time is set to "Now")

Number Scale Slider	
Severity	MEDIUM
Finding	<p>Mood scale slider is inexact. When adding moods, 3 of 4 participants noted they had difficulty figuring out the exact number scale the slider was set to (out of 10).</p> <p><i>"It's not really clear on this bar, other than if I look at update mood [button], what number I'm switching the mood to."</i></p> <p><i>"I don't like how the mood number doesn't show up in the bar and it only shows up in the button."</i></p>
Source	The only indicator of what number the slider is set to is at the bottom as part of the Update button label. It's difficult to gauge when trying to set a specific number
Recommendation	Display the set number near the slider. Show the currently set number near the slider itself in addition to the number on the Update button. This can be in the form of a number above the current selection, or as labels above each "notch."



OPTIONS:

- 1 At each "notch" on the slider, display the corresponding number below
- 2 Display the currently selected number in a tooltip below the slider

How easily can users interact with the MoodPanda community?

Hug Interaction

Severity **MEDIUM**

Finding **The “Hug” interaction doesn’t follow industry standards.** Based on similar “like” or “favorite” features on other products, some of the interactions with “hugging” do not match mental models that users may have developed. Two participants thought that a comment was required to hug someone. Two participants had concerns that there wasn’t enough feedback when a hug was left. Two participants were frustrated that they could not undo a hug.

“After I give the hug I don’t need this thing [dialog beneath] there still. I just want to see that my hug has been added. Here I feel that I have to add something.”

“My hug won’t be recorded until I add in a reply, but now I’m realizing I think it recorded the hug and I don’t have to leave a reply. I think.”

“Oh I left a reply AND a hug. This part popped up when I clicked that.”

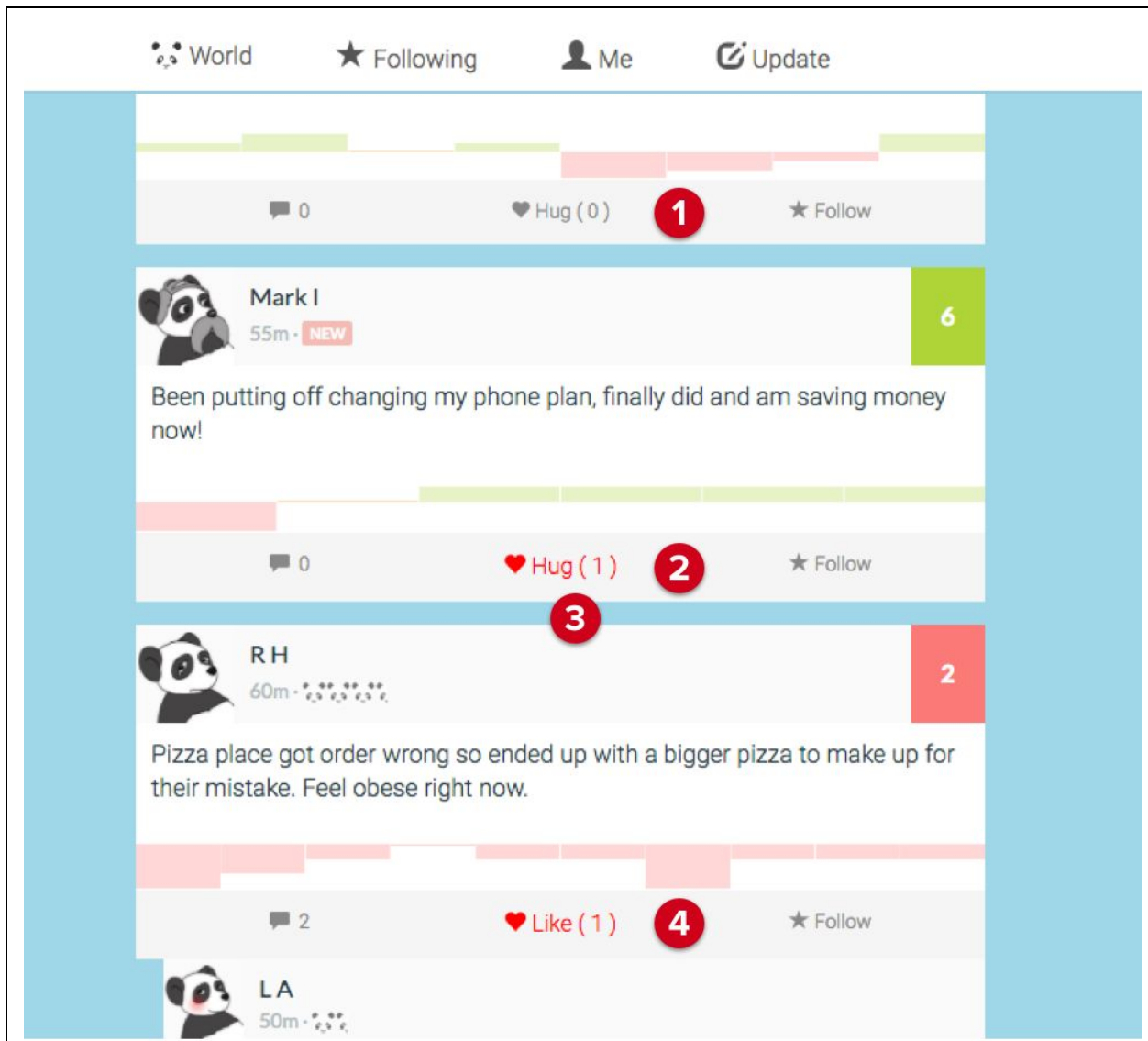
“The only weird thing was 'hug' shows up as a comment instead of like, I don't know, a hug? It's not like Facebook which I guess is good.”

“It’s just weird because you can’t exit out of this thing [the hug dialog beneath the user’s’ post]. After I give the hug I don’t need this thing there still. I just want to see that my hug has been added.”

“When I gave a hug, I didn't know it would automatically do it without a comment.”

Source “Hug” is a non-standard word that requires instruction how to use. Following that same reasoning, a “hug” should be expected to be changed on or off at any time, but instead leaves a comment and can’t be removed. By opening the comment section when clicked, the hug button falsely triggered users to leave a comment.

Recommendation **Modify “hug” interactions to match industry standards.** Users have a mental model of how they interact when tagging a post as a favorite. Do not add a comment that a hug was left, simply activate the button to indicate it is in an “on” state. Allow users to click the button again to turn it off, or deactivate it. Also consider changing the “hug” label to a standard “like” or “favorite,” similar to what is found in other products with a similar feature.



- 1 Inactive state (current design)
- 2 When activated, the Hug button should turn red
- 3 Hugging a post should not add a comment, as shown here
- 4 Consider re-labeling “Hug” to “Like” to mirror industry standards

Appendix

Supplemental Materials

1. Screener / Questionnaire

How frequently do you take notes on an electronic device?

- Less than once per week
- More than once per week

How often do you use a calendar on an electronic device?

- Less than once per week
- More than once per week

What is your age?

- 17 or younger
- 18 - 33
- 34 - 49
- 50 or older
- Prefer not to answer

What is your gender?

- Female
- Male
- Prefer not to answer

2. Usability Test Script

Introduction

Hello my name is _____, and I'm a graduate student at DePaul University. Thank you for taking the time to meet with me today. My teammates and I are working on a usability study for a class to learn about how easy it is to use the mood tracking website, MoodPanda.com.

Please keep in mind that there are no right or wrong answers. We are testing the application, not you. Don't worry about hurting our feelings, we are doing this to improve the site and your feedback will help us.

I'll be asking you to complete several tasks with the website--and I'll be taking notes during the session. We'll also be recording with a video and screen recorder in case I miss anything, but these will be immediately destroyed after we collect the data. Your responses will be kept confidential--and we'll use a pseudonym rather than your real name.

Your participation is completely voluntary. You have the right not to complete any task, and to stop at any time, for any reason.

The session should last about 30 minutes. If you need to take a break at any time, just let me know.

Do you have any questions so far?

**Hand consent form & pen to participant
(read aloud to participant)**

- Please read and sign the consent form when you are ready. This is the standard Adult Consent Form for DePaul University studies. Let me know if you have any questions.

If participant signs form:

- Thank you. Let's get started.

If participant does not sign form:

- Thank you for your time. I'll make sure you get credit for your participation.

- Ensure browser is open to Google.com (as a neutral page)**

- Start recording devices**

- Remember to take notes**

Warm Up

Before we begin, I'd like to ask you a few quick questions.

Have you ever used a note-taking app? If yes, which one(s)?

- Skip the following questions if the participant answers “no.”**

How often do you use it?

What do you use it for?

What do you like about it?

Have you ever used a scheduling or calendaring app? If yes, which one(s)?

Skip the following questions if the participant answers “no.”

How often do you use it?

What do you use it for?

What do you like about it?

Have you ever used a website or application in order to track your behavior, such as a fitness tracker?

❑ Skip the following questions if the participant answers “no.”

How often do you use it?

What do you like about it?

About how many behavior or activity tracking sites or app(s) would you say you use on regular basis?

Thanks. Are you ready to begin?

Now I'm going to ask you to complete several tasks. I'm going to read each one to you as we go, and give you a printed copy if you'd like to reference it.

Please try to do these tasks without using search. That way, we can learn more about how easy the site is to use.

Also, please try to think out loud, like what you are looking at, what you're trying to do, or what you are thinking. Once you feel you've completed the task, just let me know.

❑ Open MoodPanda.com in web browser

- Read first scenario aloud and hand paper copy to participant after.**

- Proceed through each task until it's no longer providing value or if the user becomes too frustrated.**

- Repeat for each task or until time runs out.**

Tasks

1) **Your friend mentions how they have been using a mood tracker and recommended that you give MoodPanda.com a try. Please register for a MoodPanda account and sign in. You may use the dummy data on the sheet.**

- Take notes. Make sure to record the time of each notation.**

- Success: Participant clicks on login or start, then clicks create account, registers, and answers onboarding questions.**

Notes:

- Number of times participant navigated to incorrect page
- Number of times participant performed incorrect/unnecessary action

□ Ask the post-task questions

On a scale of 1 to 7, how easy was it to complete your task, one being not easy at all, and 7 being extremely easy?

- Why?

Tell me about your overall experience with this task:

2) Now that you have a MoodPanda account, you would like track the moods you experienced throughout today. Please record the following four moods with the appropriate times set:

1. At 8:00am, you felt rushed getting to work because you slept in a little longer than usual (Scale: 5/10)

2. At 11:30am, you were extremely hungry and irritable because you didn't have time to eat breakfast. (Scale: 4/10)

3. At 3:30pm, you had a team meeting with your coworkers to discuss an exciting new project. You are really optimistic and confident about the finished product. (Scale 8/10)

4. At 9:00pm, you finished watching a movie that you had been looking forward to for a long time. Unfortunately, you were disappointed that it didn't live up to all the hype. (Scale 6/10)

- ❑ **Take notes. Make sure to record the time of each notation.**

- ❑ **Success: Participant moves the slider to what they think is appropriate, they make a note containing their mood (with or without hashtag), changes the time under “Advanced”, and then updates/posts the mood**

Notes:

- Number of times participant navigated to incorrect page
- Number of times participant performed incorrect/unnecessary action

- ❑ **Ask the post-task questions**

On a scale of 1 to 7, how easy was it to complete your task, one being not easy at all, and 7 being extremely easy?

- Why?

Tell me about your overall experience with this task:

3) At the beginning of the new year, you set a daily personal goal to brighten the days of two people. After discovering MoodPanda’s public community, you determined that you could achieve this goal by posting positive comments on other people’s mood. For this task, please find two public posts, then make a positive comment on one and leave a “hug” the other.

- ❑ Take notes. Make sure to record the time of each notation.

- ❑ Success: Participant selects “World” from the top navigation, reads recently posted moods, finds two to respond to, posts a positive comment on one, and “hugs” one.

Notes:

- Number of times participant navigated to incorrect page
- Number of times participant performed incorrect/unnecessary action

- ❑ Ask the post-task questions

On a scale of 1 to 7, how easy was it to complete your task, one being not easy at all, and 7 being extremely easy?

-
-
- Why?
-
-

Tell me about your overall experience with this task:

- 4) **After using MoodPanda throughout the day to track your mood, you'd like to look back and see how you did. Please explore the tools and graphs to analyze and review your day.**

- ❑ **Take notes. Make sure to record the time of each notation.**

 - ❑ **Success: Participant selects "Analysis" dropdown and then views the tools and graphs available**

Notes:

- Number of times participant navigated to incorrect page
 - Number of times participant performed incorrect/unnecessary action
-
-
-
-
-
-
-

Ask the post-task questions

On a scale of 1 to 7, how easy was it to complete your task, one being not easy at all, and 7 being extremely easy?

o Why?

What tool or graph was the most helpful to you to review your day's mood?

What do you think the main graph is trying to communicate to you?

What do you think the "best and worst days" graph is trying to communicate to you?

What do you think the "summarized" graph is trying to communicate to you?

Tell me about your overall experience with this task:

Wrap Up

Okay, we are all done with the tasks.

Was there anything that you disliked or didn't find easy to use?

How would you rate your satisfaction with MoodPanda from 1-7, one being not satisfied at all, and seven being extremely satisfied.

- Why?

Is there anything else you think we should know about MoodPanda?

Do you have any questions for me?

Thank you for participating, I really appreciate you helping with our project!

- Give them their incentive or remind them we will grant them credit.**
- Stop recording devices if using.**
- Escort them out if test is in-person.**

3. Consent form

ADULT CONSENT TO PARTICIPATE IN RESEARCH

Usability Study of MoodPanda.com (Desktop Version)

Principal Investigator: Dorian Anderson

Institution: DePaul University, Chicago, Illinois, USA

Department (School, College): College of Computing and Digital Media

Faculty Advisor: Enid Montague

Collaborators: Camille Celone, Elisandra Diaz, Straton Roberts

What is the purpose of this research?

We are asking you to be in a research study because we are trying to learn more about the usability of a mood tracking website. This study is being conducted by four graduate students at DePaul University as a class requirement to obtain our Master's degrees. This research is being supervised by our professor, Dr. Enid Montague.

We hope to include five people in the research.

Why are you being asked to be in the research?

You are invited to participate in this study because you are a graduate or undergraduate student, who has indicated that you use a digital device to take notes and/or manage a calendar. You must be age 18 or older to be in this study. This study is not approved for the enrollment of people under the age of 18.

What is involved in being in the research study?

If you agree to be in this study, being in the research involves observing you using the mood tracking website, MoodPanda.com to complete various tasks.

The usability test may be audio/video recorded and transcribed into written notes later in order to get an accurate record of what you said.

How much time will this take?

This study will take about 30 minutes of your time.

Are there any risks involved in participating in this study?

Being in this study does not involve any risks other than what you would encounter in daily life.

Are there any benefits to participating in this study?

We hope that what we learn will help improve the usability of mood tracking sites.

Can you decide not to participate?

Your participation is voluntary, which means you can choose not to participate. There will be no negative consequences, penalties, or loss of benefits if you decide not to participate or change your mind later and withdraw from the research after you begin participating. You may end the test at any time, for any reason and receive full compensation for your participation. Your decision whether or not to be in the research will not affect your grades at DePaul University.

Who will see my study information and how will the confidentiality of the information collected for the research be protected?

The research records will be kept and stored securely. Your information will be combined with information from other people taking part in the study. When we write about the study or publish a paper to share the research with other researchers, we will write about the combined information we have gathered. We will not include your name or any information that will directly identify you. We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. However, some people might review or copy our records that may identify you in order to make sure we are following the required rules, laws, and regulations. For example, the DePaul University Institutional Review Board, may review your information. If they look at our records, they will keep your information confidential.

The audio/video recordings (if used) will be kept until accurate written notes have been made, then they will be destroyed.

You should know that there are some circumstances in which we may have to show your information to other people. For example, the law may require us to show your information to a court or to tell authorities if you report information about a child being abused or neglected or if you pose a danger to yourself or someone else.

Please be aware that disclosing experiences with sexual or relationship violence during the course of research does not constitute a formal report to the University and will not begin the process of DePaul providing a response. If you are seeking to report an incident of sexual or relationship violence to DePaul, you should contact Public Safety (Lincoln Park: 773-325-7777; Loop: 312-362-8400) or the Dean of Students and Title IX Coordinator (Lincoln Park: 773-325-7290; Loop: 312-362-8066 or titleixcoordinator@depaul.edu). Individuals seeking to speak confidentially about issues related to sexual and relationship violence should contact a Survivor Support Advocate in the Office of Health Promotion & Wellness for information and resources (773-325-7129 or hpw@depaul.edu). More information is available at

<http://studentaffairs.depaul.edu/hpw/shvp.html>. Individuals are encouraged to take advantage of these services and to seek help around sexual and relationship violence for themselves as well as their peers who may be in need of support.

If you do disclose an experience with sexual or relationship violence, we will also provide you with a resource sheet containing this information at the end of the study.

Who should be contacted for more information about the research?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study or you want to get additional information or provide input about this research, you can contact the researcher, Dorian Anderson, dorian.c.anderson@gmail.com.

If you have questions about your rights as a research subject you may contact Susan Loess-Perez, DePaul University's Director of Research Compliance, in the Office of Research Services at 312-362-7593 or by email at sloesspe@depaul.edu.

You may also contact DePaul's Office of Research Services if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.

You will be given a copy of this information to keep for your records.

Statement of Consent from the Subject:

I have read the above information. I have had all my questions and concerns answered. By signing below, I indicate my consent to be in the research.

For Online Participants

By completing the online observation you are indicating your agreement to be in the research.

Signature: _____

Printed name: _____

Date: _____

4. Revision Notes

Based on our pilot study and instructor feedback, we have made the following changes to our usability test plan:

Issue	Revision
Research questions were hard to measure or not specific enough	We revised our list of test objectives to be more specific and measurable. We also expanded one of our original questions about the graphs into multiple questions to better evaluate them.
Evaluation measures were not based around gathering qualitative data	We changed our list of evaluation measures to better match our research objectives, which were more qualitative in nature. We also revised our post-task and post-study to match our measurements.
Tasks were lacking context	We added scenarios to each of our tasks so it would be easier for the participants to get in the right state of mind. It also helped us refine <i>why</i> we were testing certain tasks.
The task of “hugging” a community member didn’t provide us with enough information	We expanded the task to include a scenario and also commenting on another community member’s posts. This will provide the participant a better opportunity to interact with the community.
The task of analyzing the graphs was confusing to the participant because there wasn’t enough data to figure out what to do	We modified the task of updating their mood to include four different moods. This will help the graphs to have enough data so the participants will be able to better analyze them.
The order of tasks landed the participant in the middle of the next task	We reordered the “community” and “graphs” tasks so that the participant would be on a different page so we can better observe the full task of navigating to the graphs page.
Some warm up questions were not helpful	We removed several warm up questions that did not have a direct benefit to our study.
Some questions were leading or asking two things	We revised our wrap up questions to be more specific.

5. Individual Contributions

Team member	Contributions
Camille Celone camille.celone@gmail.com	Drafted “task completion” and “description of actions taken” summaries for the fifth test objective. Drafted “overall satisfaction” summary for last test objective. Pulled quotes from all raw data to add to all test objectives in the Results section and to the Findings sections. Collaborated with team to revise and finalize all other sections. Acted as moderator during test session. Entered raw data into spreadsheet (not included in report).
Dorian Anderson dorian.c.anderson@gmail.com	Drafted tables in the Quantitative and Qualitative Results Summaries. Drafted “task completion” and “description of actions taken” sections for first two test objectives. Collaborated with team to revise and finalize all other sections. Acted as moderator during test session. Entered raw data into spreadsheet (not included in report).
Elisandra Diaz elisandra.diaz@gmail.com	Drafted the Test Environment, Test Moderator Role, and Evaluation Measures sections. Acted as moderator during test session. Created Executive Summary. Collaborated with team to revise and finalize all other sections. Entered raw data into spreadsheet (not included in report).
Straton Roberts stratroberts@gmail.com	Drafted the User Profile, Task List, task scenarios, and Screener/Questionnaire sections. Acted as moderator during test session. Developed Findings & Recommendations section, along with designing and annotating recommendation mockups. Collaborated with team to revise and finalize all other sections. Formatted report for submission. Entered raw data into spreadsheet (not included in report).