

CSCI 4800

Fall 2018

(Team Athena)

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Milestone 4
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Techniques used for evaluation

Heuristic evaluation

Procedures

For the Heuristic evaluation we asked 5 experts to go through our prototype. We explained them what our prototype does and what are the goals of our project. And then we asked them to conduct the heuristic evaluation.

Then we asked the evaluators to go through our prototype and be familiar with the prototype as a phase 1 of the heuristic evaluation. Once the evaluators become familiar with the prototype we asked them to assess our prototype based on the 8 Heuristic principles. During the evaluation we maintained the silence without asking questions from the evaluators of helping/training the evaluators too much.

Once they are done they were asked to do a debriefing session and assign severity ratings for the issues they figured out.

Materials used

- Prototype
- List of heuristic principles
- Cameras to record the evaluation

Script used



Information recorded

We asked the experts to rate our system from 1-10 for 8 heuristic principles based on the severity. Below are the results.

Principle	Muhammad	Danish	Sruthi	Sushanth	Jason
1	10	10	10	9	9
2	10	10	10	10	10
3	9	10	9	9	9
4	10	10	10	10	10
5	10	10	9	9	10
6	9	8	9	9	8
7	9	10	10	10	10
8	8	9	10	9	10

cognitive walkthrough


Procedures

For the cognitive walkthrough we asked 5 specialists to examine the usability of our prototype and see whether a new participant can easily perform tasks within our prototype. Cognitive walkthrough is a task-specific approach to usability however the heuristic evaluation is more in holistic usability inspection. We began the cognitive walkthrough by defining the task or goal that the participants would be expected to perform. After that, we tried to make the task easier for the specialists by divided each task into sub-tasks (actions). For example, for the task (log in), we can divide this task like, (Navigate our prototype, Click login button, Enter user name in user name field, Enter password in password field, Click the login button). After that, we asked the specialists four questions about each action they did. For each specialist involved in the cognitive walkthrough, we recorded the step in the process where they found an issue and what that issue was. When the cognitive walkthrough is complete, we created a list of prioritized usability issues and their recommended solutions to fix them.

Materials used

- Prototype
- Four questions be asked to the specialists for each action
- Cameras to record the evaluation

Script used



Cognitive walkthrough - Checklist

- Register to the system as a normal user
- Register to the System as a professional
- Login
- Read a post
- Check the profile
- Search for a post
- Make a post
- Find subscribed areas
- Subscribe for an new area



Cognitive Walkthrough - Questions

For each action these four questions are asked to each specialisti:

- A. Do the users recognize that this action is necessary to achieve the desired goal?
- B. Can the users locate the control (link, button, etc.) that triggers the action?
- C. Once the control is activated, do users recognize that it relates to the desired effect?
- D. After the action is taken do the users understand the feedback they get, so they perceive progress is being made?

Information recorded

Each specialist fulfilled a specific task that has been assigned. Each one has provided a response to the cognitive walkthrough questions.

Subject 1: Logging into the site (assumed signed up as user)

Questions	Responses
A	Yes. They knew to enter in their credentials to fully access the website.
B	Yes. There is a login button they can press.
C	Yes. Once logged in, they can see their username in the top right corner.
D	Yes. The user sees after they log in, the site redirects to the homepage.

Subject 2: Logging into the site (assumed signed up as user)

Questions	Responses
A	Yes. They knew to enter in their credentials to fully access the website.
B	Yes. There is a login button they can press.
C	Yes. Once logged in, they can see their username in the top right corner.
D	No. This user a bit more confused as to why there was no notification when they successfully logged in.

Subject 3: Sign up on website as a non-professional

Questions	Responses
A	Yes. They knew they needed an account to fully use the website.
B	Yes. There is “Sign up” text that contrasts from the text near it.
C	Yes. Once they sign up, they can log in with their credentials.
D	No. This user would have preferred to get visual confirmation they signed up successfully.

Subject 4: Read a Post (can be either non-registered or registered user)

Questions	Responses
A	Yes. The user knows they have to read a post to get usable information.
B	Yes. The user can click on any post and read about it.
C	Yes. There is information the user will be able to read.
D	Yes. The user knows they finished reading the post.

Subject 5: Sign up on website as a professional

Questions	Responses
A	Yes. As a profession, the user knows they need to sign up as one.
B	Yes. There is “Sign up” text that contrasts from the text near it.
C	Yes. Once they sign up, they can log in with their credentials.
D	No. This user would have preferred to know whether or not they successfully signed up as a professional.

Predictive evaluation - KSLM

Procedures

For the predictive evaluation we used KSLM. And the evaluators completed specific tasks and at the same time the logged their keystrokes. After completing a task, They calculated the predictive time using the from card.

Materials

Form Card.

Check list.

Prototype

Script used



Operator name	Description	Time (sec)
K	Pressing a single key or button	0.35 (average)
	Skilled typist (55 wpm)	0.22
	Average typist (40 wpm)	0.28
	User unfamiliar with the keyboard	1.20
	Pressing shift or control key	0.08
P	Pointing with a mouse or other device to a target on a display	1.10
P ₁	Clicking the mouse or similar device	0.20
H	Homing hands on the keyboard or other device	0.40
D	Draw a line using a mouse	Variable depending on the length of line
M	Mentally prepare to do something, e.g. make a decision	1.35
R(t)	System response time—counted only if it causes the user to wait when carrying out their task	t

The predicted time is 15.6

Information recorded

Register to the system as a normal user

Operation Name	Description	Time(sec)
H	Homing hands on the keyboard	0.40
P	Point to the sign up button	1.1
P	Point to "no" button	1.1
K	Type in the personal information(30-45 characters)	8.4 - 12.6
P	Point to the next button	1.1
P ₁	Clicking anxiety disorders(0-12 characters)	0-2.4
P	Click sign up and finish	1.1
		15.6

Register to the system as a professional user

Operation Name	Description	Time(sec)
H	Homing hands on the keyboard	0.40
P	Point to the sign up button	1.1
P	Point to “yes” button	1.1
K	Type in the personal information(30-45 characters)	8.4 - 12.6
P	Point to the next button	1.1
P1	Clicking anxiety disorders(0-12 characters)	0-2.4
P1	Click to next	1.1
K	Type in the professional information(40-65 characters)	11.2-18.2
P	Point to the sign up button	1.1
		27.9

Login

Operation Name	Description	Time(sec)
H	Homing hands on the keyboard	0.40
K	Type in account and password(20-30 characters)	5.6-8.4
P	Click login button	1.1
		7.1

Read a post

Operation Name	Description	Time(sec)
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H	Homing hands on the keyboard	0.40
P	Point to the post	1.1
P	Click on the post	0.2
		1.7

Check the profile

Operation Name	Description	Time
H	Homing hand on keyboard	0.40
P	Pont the Profile name	1.10
P	Click on the Profile name	0.20
		1.70

Search for a post

Operation Name	Description	Time
H	Homing hand on keyboard	0.40
P	Pont the search bar	1.10
6(K)	Type a keyword to search	6(0.28)
P	Point Search button	1.10
P	Click on the search button	0.20
		4.48

Make a post

Operation	Description	Time
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Name		
H	Homing hand on keyboard	0.40
P	Point the make a new post button	1.10
P	Click on the make a new post button	0.20
P	Point the title text field	1.10
P	Click on title text field	0.20
6(K)	Type a title	6(0.28)
P	Point the type a post here	1.10
P	Click on the type a post here text field	0.20
6(K)	Type a post	6(0.28)
P	Point the tags	1.10
P	Click on tags	0.20
6(K)	Type tags	6(0.28)
P	Point the post	1.10
P	Click on post	0.28
		12.02

Find subscribed areas

Operation Name	Description	Time
H	Homing hand on keyboard	0.40
P	Point the profile name	1.10
P	Click on the profile name	0.20
		1.7

Subscribe for a new area

Operation Name	Description	Time
H	Homing hand on keyboard	0.40
P	Pont the search bar	1.10
6(K)	Type a keyword to search	6(0.28)
P	Point Search button	1.10
P	Click on the search button	0.20
P	Point Subscribe button	1.10
P	Click on the subscribe button	0.20
		5.78

Think aloud evaluation

Procedures:

We asked 5 participants to register as what they feel they are, then read a post, write a post, and then message. We ask the participant to say everything they are thinking out loud when they go through the site. We have one person who will read out the next step to do and then another person to write down what is states by the participant.

Materials:

A computer with the prototype pulled up.
Google Forums to take the survey and graph the results.

Script used

Step 1: Register
Step 2: Read a post
Step 3: Write a post

Information recorded

Participant 1 (20 and computer engineering major): Went through the site with ease. She said she enjoyed using it. Was confused since the words weren't in english. Other than that she said she liked the colors, structure, and how simple it was. Few to none misclicks.

Participant 2 (20 and computer science major) : Started confused with how the prototype itself would work. He wanted a little more user freedom in the site. He said that he wanted to be able to do things that the prototype didn't handle. Good amount of misclick. One thing he said he liked was how the posts were structured. He did not like the profile icon.

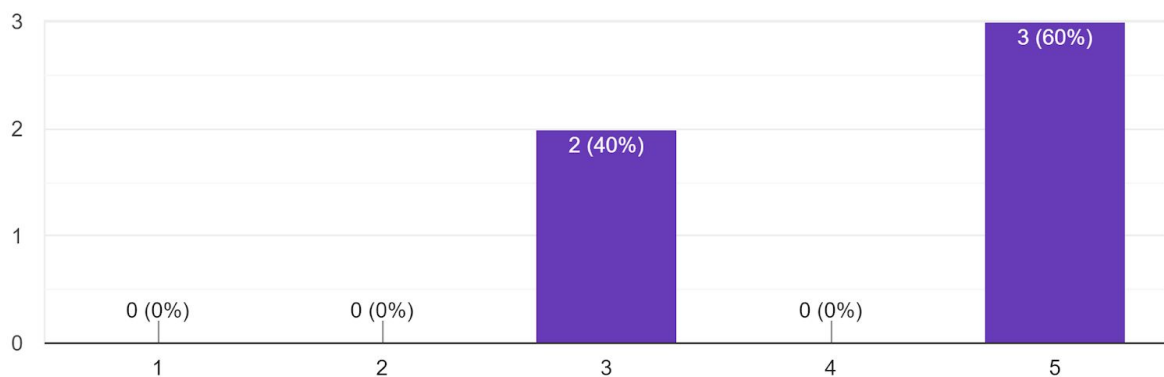
Participant 3 (32 and phd student in computer science): The problem he had, was that he was confused on what professional meant. He said he wanted to know what that meant. He also had trouble with selecting certain disorders, because he did not know what some are. He stated that he wanted to see required fields because he did not know what information was needed and what wasn't. He liked the home page and how to post. He wanted a separate profile to have a personal feel with the site. At first it was not clear that the Buffalo was the profile name, but he figured it out later in the walkthrough.

Participant 4 (30 and computer science major):

Participant 5 (20 and computer science major):

1. On a scale of 1-5 with 5 being the fastest, How fast were you able to go through the site?

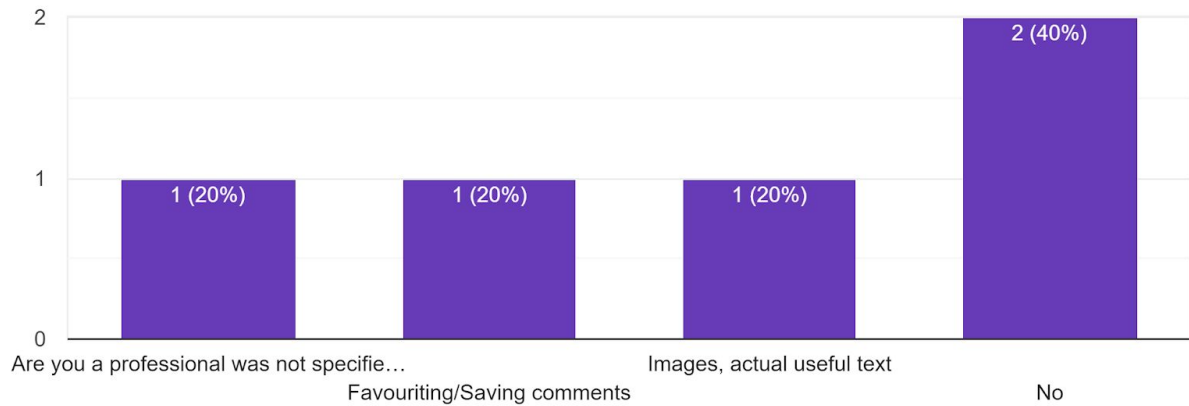
5 responses



Reason for asking this question : To get an idea of the efficiency/ performance user expects from tout application.

2. Did you see anything that the site was lacking?

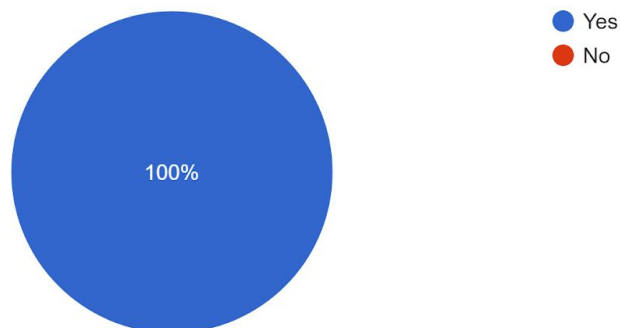
5 responses



Reason for asking this question : To get an idea of how to improve our application to the user's expected level.

3. Could you see you and your friends using this site?

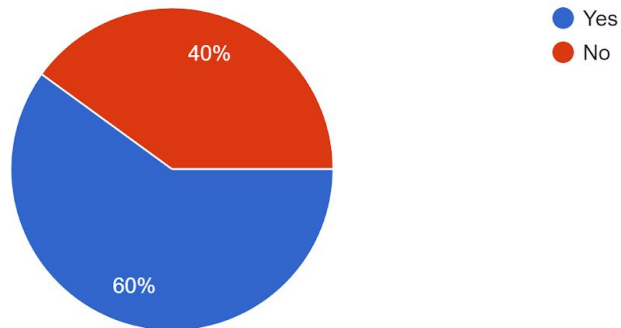
5 responses



Reason for asking this question : To understand how useful is this application.

4. Do you feel a personal connection to the site?

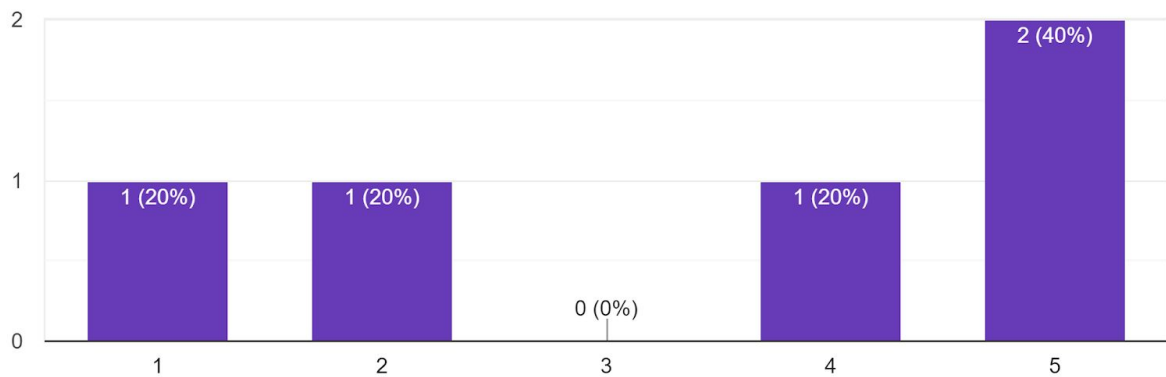
5 responses



Reason for asking this question : To understand how to improve our application to make the user feel emotionally/ personally connected.

5. On a scale of 1 - 5 with 1 being completely lost, Did you ever find yourself lost or didn't know what to do?

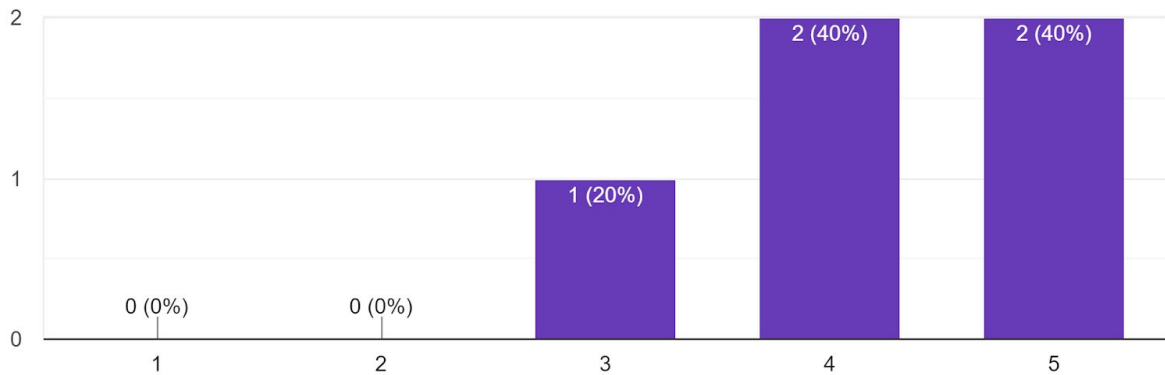
5 responses



Reason for asking this question : To understand the usability of our application.

6. On a scale of 1 - 5 with 5 being very easy, how easy was it to read the text on the screen?

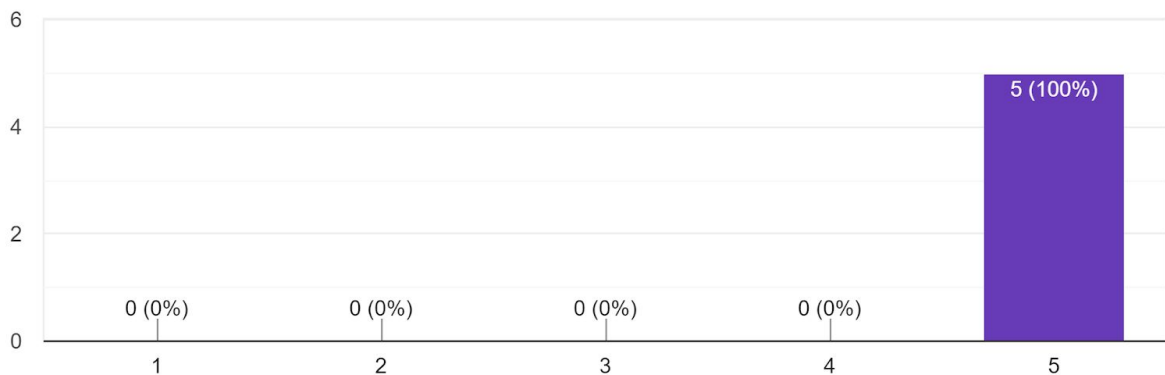
5 responses



Reason for asking this question : To understand the usability of our application.

7. On a scale of 1 - 5 with 5 being very easy, how easy was it to locate what you needed to complete your task?

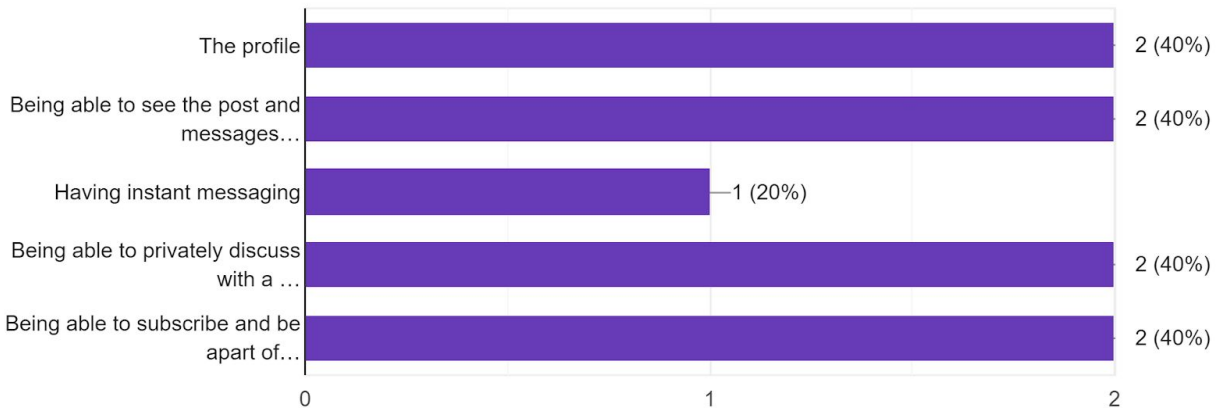
5 responses



Reason for asking this question : To understand the usability of our application.

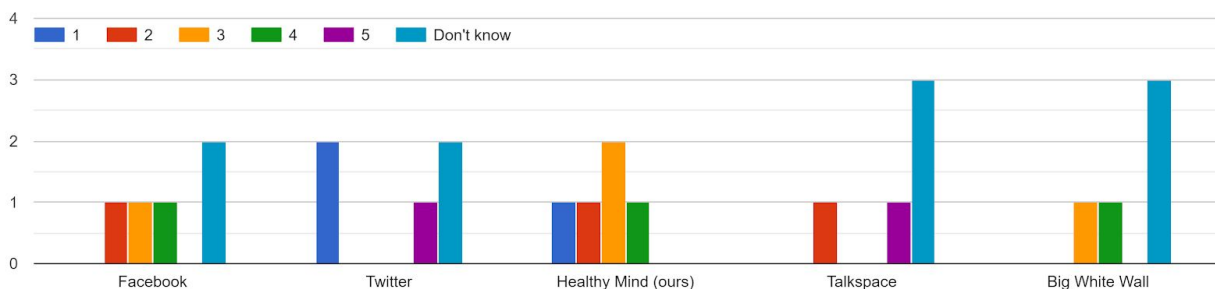
8. What did you find to be the best feature(s) on our site?

5 responses



Reason for asking this question : To get an idea of what kind of features user likes, which features we should more focus on etc.

9. Rank the following in order of 1 being the best and 5 being the worst. Based on our design, how would you rank Healthy Mind when compared with other sites? (if none are known rank the ones you do know)



Reason for asking this question : To understand the level of our app compared to the competitors.

If you could change one thing about this our site, what would you change?

5 responses

The profile page
The profile picture
IDK it was nice
The font should be more clear.
The font size for the post title should be a bit bigger.

Reason for asking this question : To understand how to improve our application more.

Conclusions of Evaluation

There are several things we have learned throughout each evaluation. The Heuristic evaluation helped us understand how an expert would use the overall website, and what parts of the website needed to be addressed. The Cognitive evaluation helped us witness how a specialist would commit to a specific task and how that would reflect on a user. The Predictive evaluation was testing a user using KSLM and seeing how quick it took them to do a specific task. Finally, the Think Aloud evaluation helped us hear how a user does a specific function, providing information of their personal thoughts.

Evaluation decisions & Road path to the future

- Many evaluators mentioned that it is hard to find the subscribed areas. We have currently add the subscribed areas in the user's profile. So we should consider more about making the subscribed areas more visible.
- Some of our evaluators preferred to have profiles with their name and personal details on it. In our project we focus a lot on protecting the anonymity. Because of that we did not allow the users to enter their personal information. But after the evaluation we figured out it'll be better if we gave the users more flexibility. So as a future enhancement we can allow users to enter their personal informations if they prefer. And we can make those fields optional.
- Many of our evaluators were confused about the message button which is in the profile page which is the link to the user's inbox. Many of them thought it is a button to message someone and they were confused. We should consider renaming it as inbox as a future enhancement.

- Some of the evaluators were confused about the way we listed the mental health related issue in the subscriptions. We only listed the names. Some of them requested us to add a small description along with the names so that it can be easily identified by users even if they don't know the disorder by it's name. We recognized this as a good future enhancement.

Participants of the evaluation



Questionnaire

1. Scaler: On a scale of 1-5 with 5 being the fastest, How fast were you able to go through the site?
2. Open: Did you see anything that the site was lacking?
3. Yes/no: Could you see you and your friends using this site?
4. yes/no: Do you feel a personal connection to the site?
5. Scaler: On a scale of 1 - 5 with 1 being completely lost, Did you ever find yourself lost or didn't know what to do?
6. Scaler: On a scale of 1 - 5 with 5 being very easy, how easy was it to read the text on the screen?
7. Scaler: On a scale of 1 - 5 with 5 being very easy, how easy was it to locate what you needed to complete your task?
8. Multi: What did you find to be the best feature on our site?
 1. The profile
 2. Being able to see the post and messages from the home page
 3. Having instant messaging
 4. Being able to privately discuss with a doctor and/or friends about whatever you needed
 5. Being able to subscribe and be apart of a specific group related to a mental illness.
9. Rank: Rank the following in order of 1 being the best and 5 being the worst. Based on our design, how would you rank Healthy Mind when compared with other sites? (if none are known rank the ones you do know)
 1. Facebook
 2. Twitter
 3. Healthy Mind (ours)
 4. Talkspace
 5. Big White Wall
10. Open: If you could change one thing about this our site, what would you change?