

Project Part 1 – Proposal & Usability Test Report

**CMPT 363 @ Simon Fraser University
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[List Team Number & Team Members]

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****Note that with the cover page and table of contents, this document should not exceed 11 pages ****

Adapted from Usability Test Plan Template from Usability.Gov
(<https://www.usability.gov/how-to-and-tools/resources/templates/usability-test-plan-template.html>)

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Part 1: Proposal

Mental health issues present major challenges to university students. With the growing number of students struggling with their mental health issues, universities are facing the challenge of effectively providing counseling help. To tackle the logistic issue of in-person counseling, universities look into digital options such as applications that provide remote counseling. Our project focuses on exploring the usability of applications in the domain of mental health support to university students. The current state-of-the-art application in this domain is My SSP, a service contracted by multiple universities in Canada that provides mental health support online to university students. According to research about mental health apps, the biggest issue for the provider of mental health apps is the high attrition/dropout rate due to the lack of engagement from users (Alqahtani and Orji, 2020). This issue is similar to in-person counseling where patients would quit when they found their motivation lacking. Therefore, usability issues such as low visual appeal, bad information presentation, and complex navigation would lead to a high rate of app abandonment (Alqahtani and Orji, 2020). To tackle the usability issues related to user engagement, designers should focus on making the application visually appealing, clear information presentation, and intuitive navigation. Our project aims to improve the design to mimic the processes of a good in-person counseling experience where users quickly get help (resources, counselor) with the lowest amount of time and steps needed.

Part 2: Usability test

1. Executive summary:

The project aims to explore the usability of the My SSP, an application that provides resources and counseling services to students. The main features include 24/7 access to professional counselors as well as scheduled short-term counseling support. Moreover, users are able to do self-administered assessments that can help them find helpful resources such as articles, and videos to help with their mental health issues. First-time users must complete the registration of personal information before they are able to access the above features. Our team identified four key features that affect user engagement and cause app abandonment for first-time users:

1. Registration of personal information that can be used to provide urgent support
2. Online self-administered assessment similar to in-person mental health screening
3. Find helpful resources about mental health support
4. Contact a counselor through a variety of methods (real-time chat, call, email)

Our test objectives are to identify usability problems, collect quantitative data and qualitative feedback to determine user engagement with the application

1. Visual appeal: Is the UI design visually appealing enough?
2. Navigation: Is the user able to follow the flow of the application?
3. Presentation: Is the information/instructions clear enough for the user to act upon?

2. Methodology:

As students are the main target audience of the application, our team focuses on recruiting university students to participate in our test. Each facilitator will screen and recruit a single participant via word of mouth or phone texting to university students in the age range around 20. The total number of desired participants is 4 university students who are currently facing mental health issues and would like to seek mental health support outside of in-person counseling. Another key characteristic is that they must not use the My SSP application before (can have experience with other mental health applications) and have some experience with in-person counseling.

The setting would be performed in person where a facilitator would observe and interact with a participant in a private and comfortable location. As My SSP is a web

application, the main device used would be a laptop/smartphone with an internet connection and access to the latest version of My SSP(at the time of testing). The facilitator would begin by asking for consent and start with a pre-test questionnaire about demographic and background information (Appendix). Then the facilitator would instruct the participant with the Think-Out-Loud method when performing tasks to collect data and evidence (Appendix). After the completion of the usability test, the facilitator measured the overall usability of the application through the System Usability Scale (SUS) in the post-test questionnaire (Appendix). At the end of the test, the facilitator collects feedback and suggestions from participants. (Appendix)

3. Usability tasks:

The test setup is a scenario where a student first tries to find mental health support through the My SSP app in the most comfortable environment with their most familiar device. A facilitator would guide a participant through all 4 different tasks from 1 to 4. The tasks are selected to represent the four key features of the applications. They are ordered to represent the sequence of actions a first-time user would do to gain the most out of the app. Each task would mimic an action similar to mental health support from in-person counseling. All participants in the test will do all 4 tasks and follow the same sequence.

- Task 1: Create a profile with personal information: Similar to registration at the clinic front desk. This task is critical as it provides the first impression to users. Therefore, the facilitator can test the visual appeal of the application
- Task 2: Complete the self-administered assessments and follow instructions: Similar to clinic screening and following staff instructions. Due to the nature of questions and answers, the application design must prevent presentation errors such as unclear instructions. Therefore, the facilitator can test the presentation of the application
- Task 3: Find helpful mental health resources: Similar to printed articles, exercise programs in the clinic library. This task focuses on finding things quickly. Therefore, the facilitator can test the navigation of the application
- Task 4: Contact a counselor: Similar to booking a scheduled meeting with a counselor. This task focuses on the key feature of the app: counseling. Therefore, the facilitator can test the ease of use and overall satisfaction of the application.

4. Usability metrics:

Our team combines quantitative and qualitative metrics to gain insight into the usability of the My SSP application. They are important measurements that can be used to benchmark future design improvements. For each task, we use 4 main metrics to measure the usability of the app:

- Success rate (Yes or no): Whether a participant successfully completes the task or not. Useful to know which tasks have critical usability errors.
- Time-on-task (min or seconds): How long does a participant successfully (or fail to) complete a task? Useful to calculate the total time taken to use the application.
- Number of errors (times): How many errors did a participant make before succeeding (or giving up)? Useful to know which task the participant struggles with the most.
- Subjective satisfactory scale (1 to 7): Whether a participant is satisfied/neutral/dissatisfied after completing the task. Useful for measuring the feeling and comfortability of users

Overall, how difficult or easy did you find this task?



+

5. Key observations:

In the pre-test questionnaire, the main frustration that affected participants' mental health was the lack of time when balancing between work/study/life while finishing a degree at a university. The main obstacle they all face is the shortage of time that prevents them from using in-person counseling services at schools. Since most of the participants have a high familiarity with technology, they have no issues or discomfort when performing tasks.

- Task 1: Create a profile with personal information

All users completed this task with ease and no errors with a high satisfaction score (average 7). The common praise was on the simple design and visually appealing UI. However, some participants reported that the modal pop-up asking for acceptance to Term of Use caused a disturbance when filling in the form inputs. According to a

participant, Cowhen a form has wrong input, the Term of Use modal would pop up and ask them to click on the agree button again and again. Therefore, the satisfaction scores were lower for the ones having wrong input and encountering the modal problems (average 5).

- Task 2: Complete the self-administered assessments and follow instructions

Half of the participants seem to struggle with this task. The average error number is 2 per participant. While 50% of the participants completed this task with few errors, the other 50% of participants struggled with following instructions on the screen and took an average of 5 to 7 minutes to answer all the questions. The main complaint was the difficulty in finding where to start the assessment when participants were inside the homepage. Another complaint is the lack of clarity in the instruction text in one of the questions. The last and major complaint is the lack of instructions after completing the task. Many participants expected to see results and be guided by the application of the resources. However, there was nothing shown on their screen and they had to figure it out themselves. Overall, the satisfactory scores were low (average 3) among all participants.

- Task 3: Find helpful mental health resources

On the homepage, most participants had little trouble navigating the resources. All participants praised the visual design and organization of resources. Participants were able to identify and click on the right categories of resources (articles, videos, exercises). The combination of category boxes and search bar helped participants find what they needed quickly. Some minor complaints involving the search bar text cause confusion to some participants. Overall, the satisfactory score was high (average 6)

- Task 4: Contact a counselor

Participants were expected to find ways to contact a counselor. They would have to explore the applications for available ways to contact a counselor remotely. Most participants were able to find different means to contact professional counselors (real-time chat, phone call). One important note is the reports of the difference in design between smartphone phone devices and laptop devices. Participants using smartphones found that it was easier to find the contact information compared to participants using laptops. Overall, all participants were satisfied with this task (average 6.5)

In the post-test questionnaire, the average SUS score is 80.625 based on the evaluation of 4 participants. Therefore, the application achieved grade A (high usability)

6. Interpretation of results:

Insights from the pre-test questionnaire show that the common concern and obstacle for university students to get mental health support is the lack of time. Therefore, mental health applications should focus on improving the time taken to use different features. This makes the time on task an important metric. On the first task, the issue with the Term of Use modal should be tackled quickly. When a user inputs wrong information into a form and clicks OK, instead of sending a notification to the user, the app shows the modal asking users to agree to the Terms and Conditions before they are able to figure out the error and fix it. This causes some delays for users before they move on to different tasks. By fixing the Terms of Use modal and properly displaying the error messages, the application would create a perfect user experience in this task. On the second task, there are many issues that our team can tackle. Based on after-test feedback, this is the most hated feature of the app due to the ambiguity of the question text and the lack of flow after completing the assessment. Our team will focus on changing the questions and answer format (scale, radio buttons, highlight,...) that would improve the engagement from users. Another focus should be after users complete the assessment. There should be some options to help improve the flow of the app after completing the assessment. Our team found no major issues on the third and last tasks.

Strengths:

- Simple and visually appealing UI
- Easy navigation
- Intuitive processes that are similar to in-person counseling

Weaknesses:

- Lack error prevention
- Inconsistency between components (assessment section)
- Minor presentation issues that cause confusion

Suggestions:

- Fix the Terms of Use modal design
- Error prevention for form input
- Change the questions and answers format in the assessment
- Add follow-up options after completing the assessment (notification to users, recommended navigation options,...)

7. Conclusion

In conclusion, the usability test found the My SSP application highly usable. Through the usability test, our team found many opportunities to further improve the applications. With some design changes, the My SSP application will become the leader that sets an example for other mental health support applications.

8. Appendix

References:

Alqahtani F, Orji R. Insights from user reviews to improve mental health apps. *Health Informatics Journal*. 2020;26(3):2042-2066. doi:10.1177/1460458219896492

Usability test:

Facilitator 1: Kevin Sugeng



Thank you for agreeing to help us assess our software. We are taking a course, CMPT 363, at Simon Fraser University that involves the design computer software, and would like you to help us evaluate our design. In this session, we will ask you to work with an existing application or a paper or interactive software mock-up of our design and to help us evaluate its clarity and simplicity. We are evaluating the software, not you. Any difficulties that you may encounter while using the software will help us locate problems with our interface design.

This usability study is completely voluntary. You may decline to answer any question or stop the study at any time and for any reason. Any data gathered up to the point of stopping the study will be destroyed. If you are a student at Simon Fraser University, this interview will have no effect on your grades in any courses. The only data we will gather will be written notes. These notes will only be seen by our team members, our instructor, and our teaching assistant and will be destroyed at the end of the course. Your name will not be attached to any gathered data, but rather a unique ID code such as “Participant A”.

Concerns or Complaints

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Lawrence Kim at lawkim@sfu.ca.

Do you agree to the following: I have read and understood the subject information and consent form and freely consent to participate.

Yes

No

Selecting yes indicates that you consent to participate in this study and that you are 19 years of age or older. Select no if you wish to decline or are under 19 years of age.

CMPT 363 Online Usability Testing Consent Form

Name: Kevin

Signature: Verril Angelo

Part 0: Preparation

1. Introduce yourself -> Inform why we are doing this (market study to improve products, NOT working on assignment) -> Get participant to sign the consent form (need this for the appendix) -> let them know the process is voluntary and can stop at any time
2. Location: House
3. Time: 4:03 pm
4. Number of participant(s): 1
5. Device used (phone/laptop/...): laptop
6. Application version (MySSP version): Newest Version

Part 1: Pre-test questionnaire

7. Chit chat and ask questions (in a form of conversation NOT interrogation!) -> ask them open questions (example: What is ...? Have you ever...?) NOT guiding questions (Do you...? Are you...?)
8. Participant's name: Verril Angelo
9. Participant's age: 20
10. Participant's occupation (secondary/high school/university? if student): University Student
11. Participant's relationship with tester: Friend
12. How participant is recruited: Ask him to do interview
13. Participant's most used technology (smartphone/laptop/desktop/...): Laptop
14. Level of confidence with participant most used technology (scale 1 to 5): 5
15. When participant spend the most time with the most used technology (before bed/at work/...): At school and when doing assignment
16. Participant's current goals (school/make friends/...): Graduate from Simon Fraser University
17. Participant's current frustrations that affect current goals (family/school/work/...): School and work

18. How participant cope with the current frustrations (netflix n' chill/hang out...): Hang out and gaming
19. Obstacles that participant face when coping (no one to talk to/expensive therapy...): Talk to his close friend and hangout
20. Let participants ask questions before begin testing

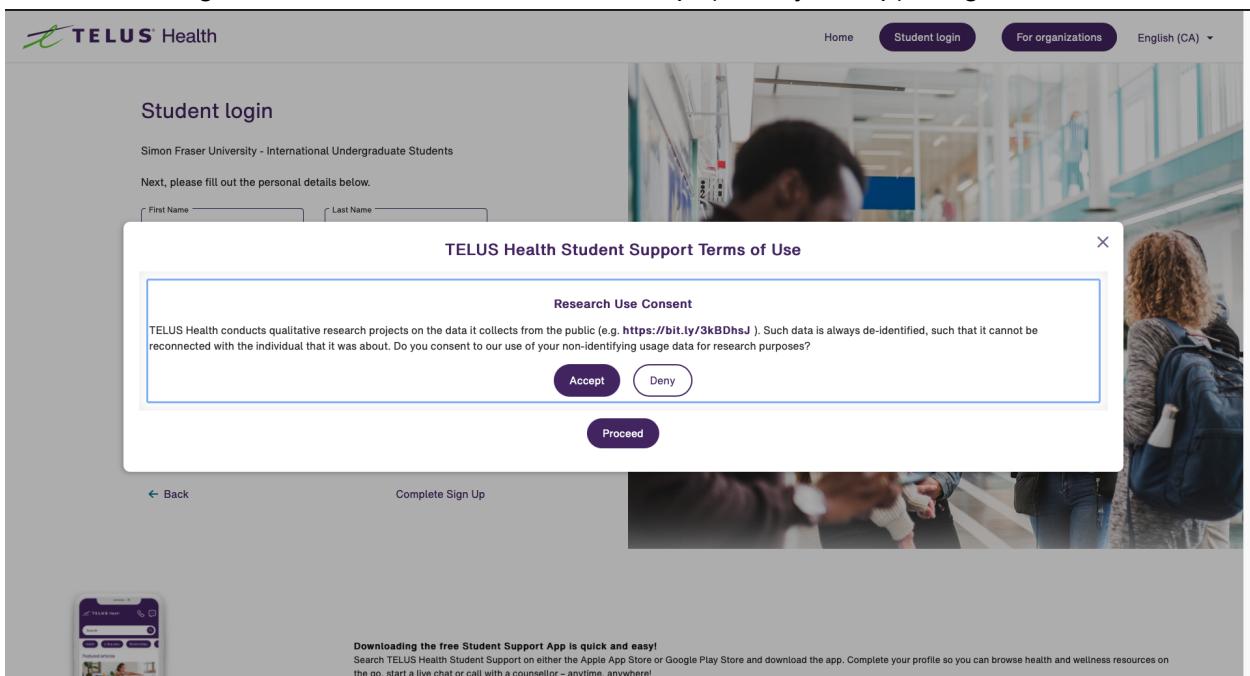
Part 2: Usability testing

- Reference:
<https://usabilitygeek.com/usability-metrics-a-guide-to-quantify-system-usability/>
- Explain the testing process to participant:
 The facilitator will explain that the amount of time taken to complete the test task will be measured and that exploratory behavior outside the task flow should not occur until after task completion. At the start of each task, the participant will read aloud the task description from the printed copy and begin the task. Time-on-task measurement begins when the participant starts the task. The facilitator will instruct the participant to ‘think aloud’ so that a verbal record exists of their interaction with the application. The facilitator will observe and record observations of user behavior, user comments, and system actions.
- Scenario: Create a scenario based on participant’s answer in the pre-test questionnaire (example: you are stress due to schoolwork (current frustrations, you need to talk to someone (coping methods) to relieve the stress but unable to do so due to busy schedule (obstacles). Therefore, as a friend (relationship with tester), I recommend you to use this app to help with your problems. -> get them to do the task using THINK OUT LOUD method (speak out loud their steps when do stuff)

Task 1: Create a profile

- + Successfully complete the task (Y/N): Y
- + Total time taken (end time - start time) : 90 seconds
- + Number of errors: errors
- + Most common type of errors (wrong navigation/wrong form input...) TAKE SCREENSHOT:
 1. After wrong input and trying to fix it, Terms and agreement always show up and ask us to agree again

2. Terms and Agreement is kind of difficult with 2 steps(usually 1 step) to agree to it,



- + Satisfactory rating (scale 1 to 7): 5

Overall, how difficult or easy did you find this task?



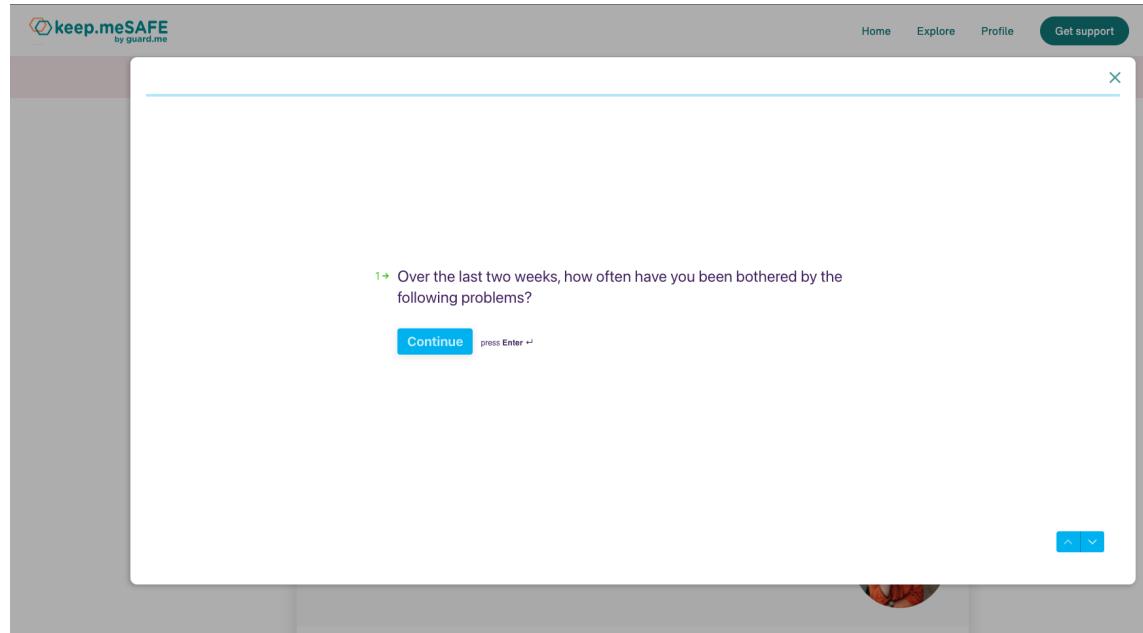
+

- + Justification for the rating (why): The problem is about terms and agreement that takes too many steps or always show up after wrong input. The website is taken a little more time to process (not as fast as other usual website), but it is all good.
- + Participant's comment: Terms and agreement is a little bit disturbing with many steps to just "agree" to it and showing up a lot after wrong input. Website is a bit too long to process but it is still ok.

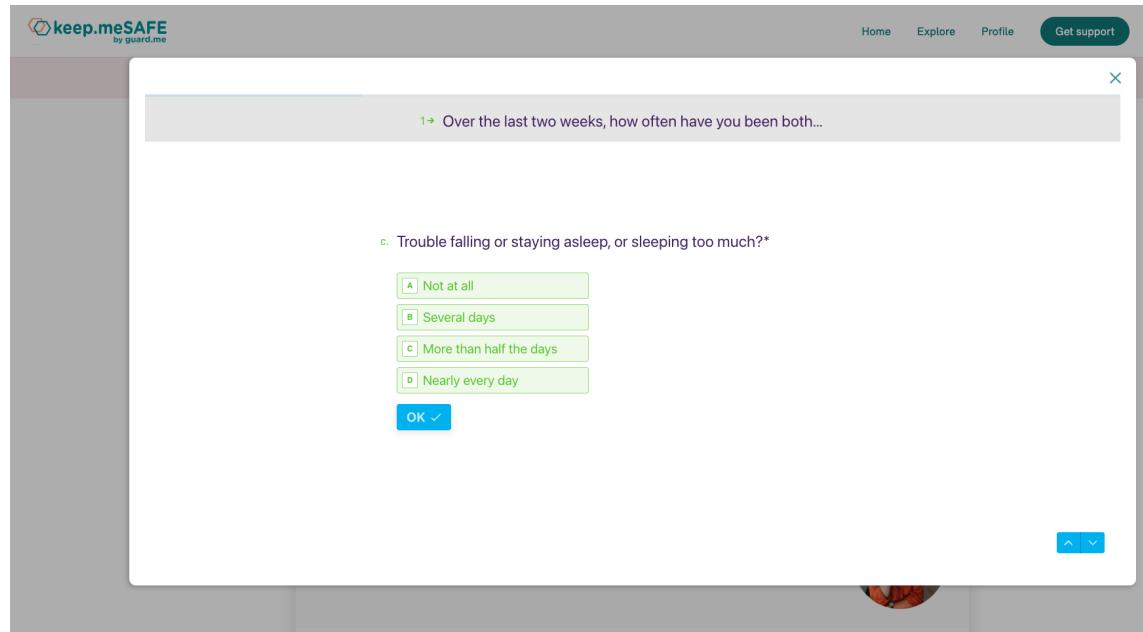
Task 2: Complete the assessment and follow the instructions

- + Successfully complete the task (Y/N): Y
- + Total time taken (end time - start time) : 5 minutes
- + Number of errors: 3 errors
- + Most common type of errors (wrong navigation/wrong form input/...) TAKE SCREENSHOT:
 1. When trying to go to assessment, There are some couple issue. First of them is, there are question that don't have the option to answer, it only said us to enter,

but we couldn't answer the question before



2. Another issue is when you try to press key to answer the options, it goes straight away to next question. The problem is when you are trying to change the answer from previous question, you have to go back by clicking the small button in the bottom right hand corner and change the answer, I feel like it is better when you click the answer, it doesn't automatically go to the next question, but there are some button that says like "next question" or something like that.



3. When you finish the assessment, it only said "There are some really helpful strategies..." without having to know how to access the help from this website. There should be a button that redirect you the page to get some help, however, it

doesn't provide that, so you should go back to the main page and search how to seek for help

X

It seems as though you've had some worries weighing on you lately. Whether you can connect these to practical stressors in your life, or not, either way there are some really helpful strategies you can practice that will help you to feel better.

How you ask is everything [Create a typeform](#)

- + Satisfactory rating (scale 1 to 7): 3

Overall, how difficult or easy did you find this task?



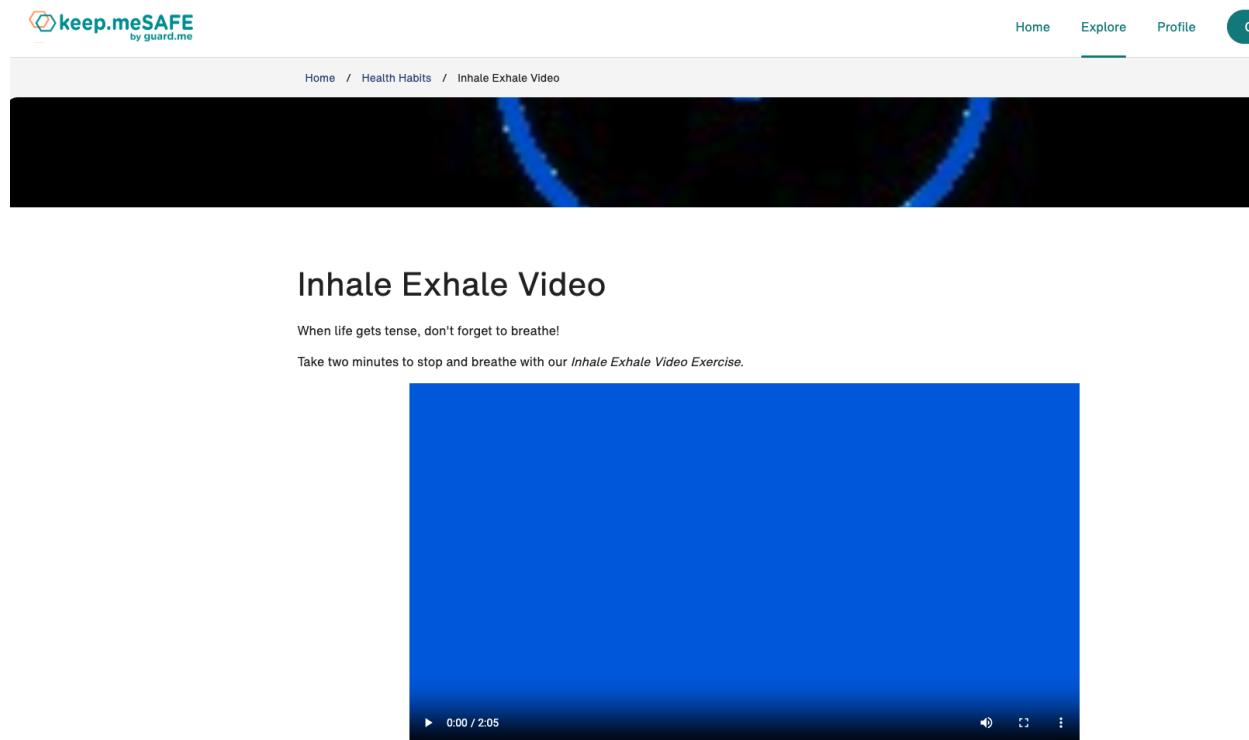
+

- + Justification for the rating (why): The web app completely miss the whole point of assesment. There should be easier way to seek for help after completing the assesment by clicking the button or anything. User don't have to go back to the main page and search all the way on how to seek for help which can be difficult for some users that have depression, anxiety, etc. The form is not that simple as well, like the automatically goes down feature and the small button to go back in the bottom right hand corner.
- + Participant's comment: UI is nice, but the form is really hard to navigate, other usual web app is easier, The automatically go down feature is kind of disturbing. The question that don't have the answer is also not good. Then after all assesment, it doesn't show the user how to seek for help.

Task 3: Find useful mental health resources

- + Successfully complete the task (Y/N): Y
- + Total time taken (end time - start time) : 60 seconds
- + Number of errors: 1 errors

- + Most common type of errors (wrong navigation/wrong form input/...) TAKE SCREENSHOT:
 1. Only one problem which is there is no search button after you go to read a source. Therefore, to search for a source, you have to go to Home first and then search it, you cannot search anything after viewing one source.



- + Satisfactory (scale 1 to 7): 7

Overall, how difficult or easy did you find this task?



- + Justification for the rating (why): It is easy to access, The run time is also really good, and The UI is nice and simple. Everything in the resource is really easy and the color of it is also well suited. But one thing that can be improve is the search box.
- + Participant's comment: Overall, The UI/UX is really good. It is simple and easy to access. One problem is search box that doesn't show up when viewing a source, so user have to go back to home and can be a waste of time

Task 4: Book a meeting with a counselor

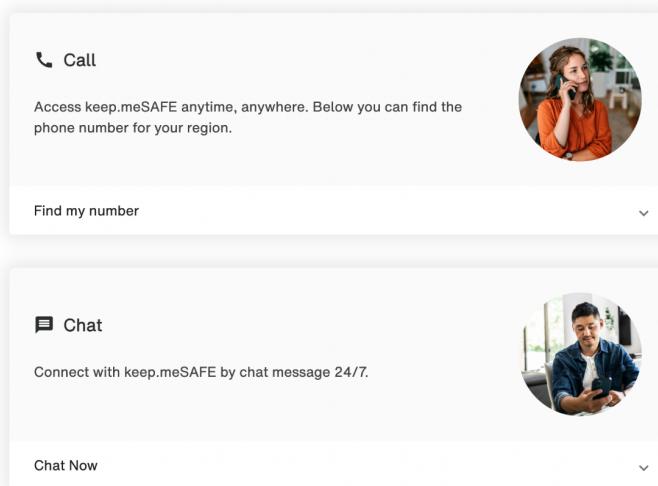
(Im not booking with a counselor, Im trying the real time chat cause for booking a counselor, you need to call the counselor itself to set up schedule)

- + Successfully complete the task (Y/N): Y

- + Total time taken (end time - start time) : 4 minutes
- + Number of errors: 1
- + Most common type of errors (wrong navigation/wrong form input/...): When user was trying to book a meeting with counselor, user had to search all around the website which eventually finding out that you cannot book a meeting online, so you have to call the counselor first and set up a meeting with her.

Get support

Immediate support is available to you 24 hours a day, 7 days a week. There are two virtual counselling options: telephone and online chat.



- + Satisfactory (scale 1 to 7): 6

Overall, how difficult or easy did you find this task?



- + Justification for the rating (why): The UI is simple and really good. It is easy to access support and there are two feature which are realtime chat and call that are really good and fast response as well.
- + Participant's comment: It is easy to access the call and chat, the UI is really good, and the response time of counsellor when trying to chat and call is fairly quick to. Overall, good experience.

Part 3: Post-test questionnaire (base on System Usability Scale - SUS):

- Reference:
<https://usabilitygeek.com/how-to-use-the-system-usability-scale-sus-to-evaluate-the-usability-of-your-website/>

- Measures:

Use this scale next to a question

	Strongly disagree				Strongly agree
1. I think that I would like to use this system frequently					
	1	2	3	4	5

- Questions: (Clarify if they confuse)

1. I would like to use this app frequently: 3
2. I found the app unnecessarily complex: 2
3. The app was easy to use: 5
4. I would need technical support to help me use this system: 1
5. I found various components (profile, assessment, booking) were well integrated: 4
6. The app is too inconsistent when transitioning between components: 2
7. I imagine most people would learn how to use this app quickly: 3
8. The app is too cumbersome (annoying) to use: 2
9. I felt confident when using this app: 4
10. I need to prepare and learn a lot of things before using this app: 1

Total SUS score 77.5/100

Part 4: Feedback

- What did participant think about the app overall: Overall, the web app is good enough and easy to use for most people. But, I don't know with people that have depression, stress, etc. There are so many things that could be improved.
- What aspect(s) they like most about the app: The UI
- What aspect(s) they hate most about the app: Terms and Agreement, and assessment form.

Facilitator 2: Derek



Thank you for agreeing to help us assess our software. We are taking a course, CMPT 363, at Simon Fraser University that involves the design of computer software, and would like you to help us evaluate our design. In this session, we will ask you to work with an existing application or a paper or interactive software mock-up of our design and to help us evaluate its clarity and simplicity. We are evaluating the software, not you. Any difficulties that you may encounter while using the software will help us locate problems with our interface design.

This usability study is completely voluntary. You may decline to answer any question or stop the study at any time and for any reason. Any data gathered up to the point of stopping the study will be destroyed. If you are a student at Simon Fraser University, this interview will have no effect on your grades in any

courses. The only data we will gather will be written notes. These notes will only be seen by our team members, our instructor, and our teaching assistant and will be destroyed at the end of the course. Your name will not be attached to any gathered data, but rather a unique ID code such as “Participant A”.

Concerns or Complaints

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Lawrence Kim at lawkim@sfu.ca.

Do you agree to the following: I have read and understood the subject information and consent form and freely consent to participate.

Yes

No

Selecting yes indicates that you consent to participate in this study and that you are 19 years of age or older. Select no if you wish to decline or are under 19 years of age.

CMPT 363 Online Usability Testing Consent Form

Name: Nathan Wong

Signature: Nathan

Part 0: Preparation

1. Introduce yourself -> Inform why we are doing this (market study to improve products, NOT working on assignment) -> Get participant to sign the consent form (need this for the appendix) -> let them know the process is voluntary and can stop at any time
2. Location: Local library
3. Time: 4:13 PM
4. Number of participant(s): 1
5. Device used (phone/laptop/...): iPhone (IOS)
6. Application version (MySSP version): 10.3.1

Part 1: Pre-test questionnaire

7. Chit chat and ask questions (in a form of conversation NOT interrogation!) -> ask them open questions (example: What is ...? Have you ever...?) NOT guiding questions (Do you...? Are you...?)
8. Participant's name: Nathan
9. Participant's age: 20
10. Participant's occupation (secondary/high school/university? if student): Student, SFU

11. Participant's relationship with tester: Friend
12. How participant is recruited: Text
13. Participant's most used technology (smartphone/laptop/desktop/...): cellphone
14. Level of confidence with participant most used technology (scale 1 to 5): 5
15. When participant spend the most time with the most used technology (before bed/at work/...): at school
16. Participant's current goals (school/make friends/...): healthy mental
17. Participant's current frustrations that affect current goals (family/school/work/...): school work
18. How participant cope with the current frustrations (netflix n' chill/hang out...): taking more breaks and enjoying fresh air
19. Obstacles that participant face when coping (no one to talk to/expensive therapy...): cannot go for long periods due to the load of homework and studying
20. Let participants ask questions before begin testing

Part 2: Usability testing

- Reference:
<https://usabilitygeek.com/usability-metrics-a-guide-to-quantify-system-usability/>
- Explain the testing process to participant:

The facilitator will explain that the amount of time taken to complete the test task will be measured and that exploratory behavior outside the task flow should not occur until after task completion. At the start of each task, the participant will read aloud the task description from the printed copy and begin the task. Time-on-task measurement begins when the participant starts the task. The facilitator will instruct the participant to ‘think aloud’ so that a verbal record exists of their interaction with the application. The facilitator will observe and record observations of user behavior, user comments, and system actions.
- Scenario: Create a scenario based on participant's answer in the pre-test questionnaire (example: you are stress due to schoolwork (current frustrations, you need to talk to someone (coping methods) to relieve the stress but unable to do so due to busy schedule (obstacles). Therefore, as a friend (relationship with tester), I recommend you to use this app to help with your problems. -> get them to do the task using THINK OUT LOUD method (speak out loud their steps when do stuff)

Task 1: Create a profile

- + Successfully complete the task (Y/N): Yes
- + Total time taken (end time - start time) : 23 seconds
- + Number of errors: 0 errors
- + Most common type of errors (wrong navigation/wrong form input...) TAKE
- + SCRENSHOT: _____

- + Satisfactory rating (scale 1 to 7): 7

Overall, how difficult or easy did you find this task?



+

- + Justification for the rating (why): Task was short and easy.
- + Participant's comment: The task was simple and straightforward, the only requirement was school name, therefore it was pretty fast to complete.

Task 2: Complete the assessment and follow the instructions

- + Successfully complete the task (Y/N): Yes
- + Total time taken (end time - start time) : 62 seconds
- + Number of errors: 1 errors
- + Most common type of errors (wrong navigation/wrong form input/...) TAKE SCREENSHOT:

2:16 Done lifeworks.typeform.com AA

1. Over the last two weeks, how often have you felt tired or having little energy?

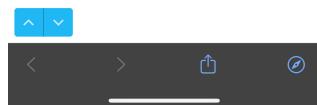
d. Feeling tired or having little energy? *

A Not at all ✓
 B Several days
 C More than half the days
 D Nearly every day

OK ✓

1. The question cuts off so user had to make assumptions on what the last word is and that what was shown is the end of the question

- + Satisfactory rating (scale 1 to 7): 4



Overall, how difficult or easy did you find this task?



+

- + Justification for the rating (why): Options weren't very accurate, no specific number range for each option. For example, "several days" and "more than half the days" can mean the same thing. Assumptions had to be made.
- + Participant's comment: Hoped that there were an extra option or numbers to identify the meaning of each option. For example, "Not at all" (0 days), "Several days" (1-3),... etc.

Task 3: Find useful mental health resources

- + Successfully complete the task (Y/N): Yes
- + Total time taken (end time - start time) : 135 seconds
- + Number of errors: 0 errors
- + Most common type of errors (wrong navigation/wrong form input/...) TAKE SCREENSHOT: _____
- + Satisfactory (scale 1 to 7): 6

Overall, how difficult or easy did you find this task?



- + Justification for the rating (why): Task was pretty easy, searching using keywords for example stress, or mental health was fairly effective. It provided relevant articles that I can read and gain some knowledgeable information.
- + Participant's comment: The designated search bar, navigation menu and categories really keeps topics organized and easy to find the articles that I want.

Task 4: Contact a counselor

- + Successfully complete the task (Y/N): Yes
- + Total time taken (end time - start time) : 180 seconds
- + Number of errors: 0 errors
- + Most common type of errors (wrong navigation/wrong form input/...): _____
- + Satisfactory (scale 1 to 7): 7

Overall, how difficult or easy did you find this task?



- + Justification for the rating (why): Finding support on the mobile app was easy due to the fact that there's navigation at the bottom and on the home screen as well. I easily filled in the simple information that needed to be collected and within seconds they directed me to a counselor. I enjoyed consulting the counselor about my stress due to school and

managing work at the same time. He provided several great resources and guides on how to find these resources in the future.

- + Participant's comment: The support feature was a lot better than anticipated.

Part 3: Post-test questionnaire (base on System Usability Scale - SUS):

- Reference:

<https://usabilitygeek.com/how-to-use-the-system-usability-scale-sus-to-evaluate-the-usability-of-your-website/>

- Measures:

Use this scale next to a question

Strongly disagree	Strongly agree

1 2 3 4 5

1. I think that I would like to use this system frequently

- Questions: (Clarify if they confuse)

1. I would like to use this app frequently: 3
2. I found the app unnecessarily complex: 1
3. The app was easy to use: 5
4. I would need technical support to help me use this system: 1
5. I found various components (profile, assessment, booking) were well integrated: 5
6. The app is too inconsistent when transitioning between components: 1
7. I imagine most people would learn how to use this app quickly: 5
8. The app is too cumbersome (annoying) to use: 1
9. I felt confident when using this app: 4
10. I need to prepare and learn a lot of things before using this app: 1

Total SUS score 92.5/100

Part 4: Feedback

- What did participant think about the app overall: It is a great app for students like him to seek resources on all sorts of mental health problems. Would definitely share it amongst others to spread awareness on this matter.
- What aspect(s) they like most about the app: The easy navigation and response speed from seeking support.
- What aspect(s) they hate most about the app: The assessments were kind of useless because all it did was really just show a message. No links to redirect for the resources or anything.

Facilitator 3: Jaskirat

Thank you for agreeing to help us assess our software. We are taking a course, CMPT 363, at Simon Fraser University that involves the design of computer software, and would like you to help us evaluate our design. In this session, we will ask you to work with an existing application or a paper or interactive

software mock-up of our design and to help us evaluate its clarity and simplicity. We are evaluating the software, not you. Any difficulties that you may encounter while using the software will help us locate problems with our interface design.

This usability study is completely voluntary. You may decline to answer any question or stop the study at any time and for any reason. Any data gathered up to the point of stopping the study will be destroyed. If you are a student at Simon Fraser University, this interview will have no effect on your grades in any courses. The only data we will gather will be written notes. These notes will only be seen by our team members, our instructor, and our teaching assistant and will be destroyed at the end of the course. Your name will not be attached to any gathered data, but rather a unique ID code such as "Participant A".

Concerns or Complaints

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Lawrence Kim at lawkim@sfu.ca.

Do you agree to the following: I have read and understood the subject information and consent form and freely consent to participate.

Yes

No

Selecting yes indicates that you consent to participate in this study and that you are 19 years of age or older. Select no if you wish to decline or are under 19 years of age.

CMPT 363 Online Usability Testing Consent Form

Name: Jasmeen Sahota

Signature: Jasmeen

Part 0: Preparation

1. Introduce yourself -> Inform why we are doing this (market study to improve products, NOT working on assignment) -> Get participant to sign the consent form (need this for the appendix) -> let them know the process is voluntary and can stop at any time
2. Location: **Test was completed in participant's house**
3. Time: **1:30pm**
4. Number of participant(s): **1**
5. Device used (phone/laptop/...): **2018 Macbook Pro**
6. Application version (MySSP version): **latest version**

Part 1: Pre-test questionnaire

7. Chit chat and ask questions (in a form of conversation NOT interrogation!) -> ask them open questions (example: What is ...? Have you ever...?) NOT guiding questions (Do you...? Are you...?)
8. Participant's name: Jasmeen Sahota
9. Participant's age: 20
10. Participant's occupation (secondary/high school/university? if student): University Student
11. Participant's relationship with tester: Sister
12. How participant is recruited: She was asked to participate, to which she agreed
13. Participant's most used technology (smartphone/laptop/desktop/...): Smartphone
14. Level of confidence with participant most used technology (scale 1 to 5): 5
15. When participant spend the most time with the most used technology (before bed/at work/...): Participant spends most of her time on the phone after school
16. Participant's current goals (school/make friends/...): Graduate school with a high GPA while going to work part time.
17. Participant's current frustrations that affect current goals (family/school/work/...): participant finds it hard to find time to spend time with friends while studying and going to work
18. How participant cope with the current frustrations (netflix n' chill/hang out...): When participant feels overwhelmed she likes to spend some time outside with her dog
19. Obstacles that participant face when coping (no one to talk to/expensive therapy...): Participant feels as if she is alone and does not have another person to talk to. Participant also finds it hard to talk to other people about her problems
20. Let participants ask questions before begin testing

Part 2: Usability testing

- Reference:
<https://usabilitygeek.com/usability-metrics-a-guide-to-quantify-system-usability/>
- Explain the testing process to participant:
The facilitator will explain that the amount of time taken to complete the test task will be measured and that exploratory behavior outside the task flow should not occur until after task completion. At the start of each task, the participant will read aloud the task description from the printed copy and begin the task. Time-on-task measurement begins when the participant starts the task. The facilitator will instruct the participant to 'think aloud' so that a verbal record exists of their interaction with the application. The facilitator will observe and record observations of user behavior, user comments, and system actions.
- Scenario: Create a scenario based on participant's answer in the pre-test questionnaire (example: you are stress due to schoolwork (current frustrations, you need to talk to

someone (coping methods) to relieve the stress but unable to do so due to busy schedule (obstacles). Therefore, as a friend (relationship with tester), I recommend you to use this app to help with your problems. -> get them to do the task using THINK OUT LOUD method (speak out loud their steps when do stuff)

- Scenario: the participant is a student who sometimes feels depressed and stressed out due to balancing school and work. She feels that she can benefit tremendously if she can talk to someone about her problems, however she feels as if she does not want to waste other people's time talking about her problems and that she does not feel comfortable talking about her problems to her friends. Therefore, as her brother, I suggested she use this application to help her with her mental help.

Task 1: Create a profile

- + Successfully complete the task (Y/N): Y
- + Total time taken (end time - start time) : 73 seconds
- + Number of errors: 1 errors
- + Most common type of errors (wrong navigation/wrong form input/...)
 - + Participant kept trying to click the "complete sign up button", but nothing occurred due to the participant not realizing that she still had to review the terms of use contract. This most likely delayed her 5 seconds until she realized what she was doing wrong. This error is a presentation error due to it not being obvious enough that the user has to complete the contract before clicking the "complete sign up button".
- + TAKE SCREENSHOT:



Gender

Female

Participant kept
trying to press
complete Sign up
even though she
didn't review the
Terms of Use

Review the Terms of Use

Back

Complete Sign Up

- + Satisfactory rating (scale 1 to 7): 6

Overall, how difficult or easy did you find this task?



+

- + Justification for the rating (why): There is only a small issue with the design of the interface and that is the terms of use button. It should be easier to click accept for the term of use and made more clear that to complete the signup you have to first read the terms of use and click accept. The confusion was due to most terms of use buttons being made as a check box which clearly indicates something that needs to be finished to complete the sign up.
- + Participant's comment: Overall, the process was fairly straightforward as there wasn't too much information to input and the instructions were clear.

Task 2: Complete the assessment and follow the instructions

- + Successfully complete the task (Y/N): Y
- + Total time taken (end time - start time) : 433 seconds (7 min and 13 sec)
- + Number of errors: 2 errors
- + Most common type of errors (wrong navigation/wrong form input/...) TAKE SCREENSHOT: _____
 - 1) The participant struggled to find the health assessments. Starting from the home page, the participant took around 2 minutes trying to locate the health assessments. First she looked throughout the homepage, but could not find it there and then went to explore, where she again kept navigating aimlessly until she clicked on "Get Support", where she was able to start the health assessment. From observing the participant it seems that there was a navigation error as there was no simple and intuitive way for the participant to quickly find the health assessment.



New app, same great service!

My SSP and keep.meSAFE are now powered by TELUS Health!

Get support

Participant struggled to find the Health assessment



Welcome to keep.meSAFE Student Support Program!

- 2) If the assessment determines that you need help, it tells you to check out resources and then contact their staff to get one on one support. However, no suggestion is given to the participant on where to search for those resources and thus, the participant is confused on what to do next. Thus, leading to the participant aimlessly navigating the website. This again is a navigation problem as the participant struggled to look for resources. Furthermore, the participant did not know what resources she was looking for, which added further confusion.

X

You seem to have been struggling with some important indicators of depression. We'd like to help, and if you're ready to get started we'd recommend that you explore our resources, complete the assessments and when you're ready, contact us via phone or chat.

- 3) The words of the question being asked is cut off, which can confuse users. This is a presentation problem.

1 → Over the last two weeks, how often have you been **bothered**...

b. Feeling down, depressed, or hopeless?*

Word cut off

- A Not at all
- B Several days
- C More than half the days
- D Nearly every day

+ Satisfactory rating (scale 1 to 7): **3**

Overall, how difficult or easy did you find this task?



+

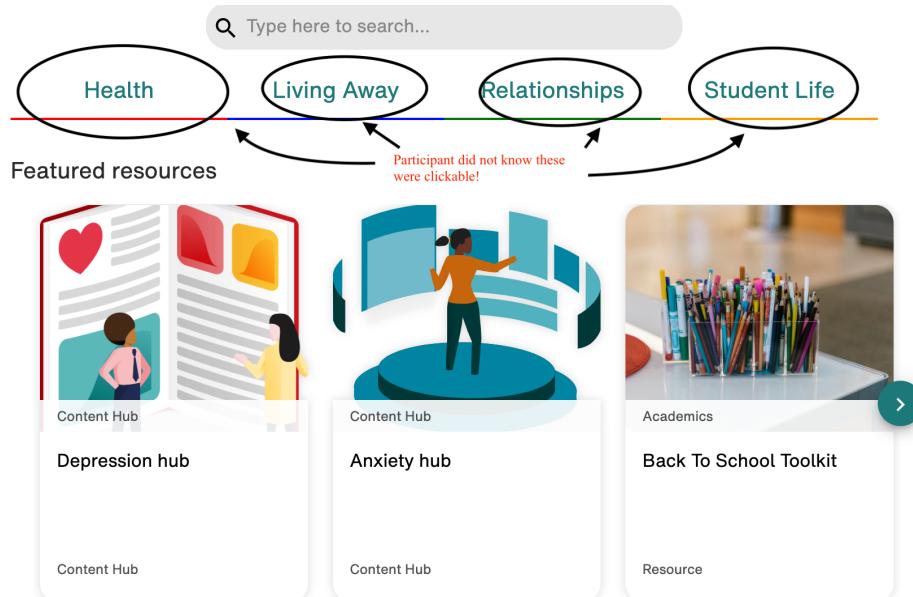
+ Justification for the rating (why):

- + For first time users, finding the health assessment is a problem because the application does not clearly broadcast where it is located and as a result I spent a lot of time just locating the health assessment in the wrong sections. The health assessment itself was easy to do, however, certain words were cut off, which caused me to take a closer look at what the question was really asking. The results of the assessment were not very helpful as it only tells you to look for resources in the application after the assessment is completed.
- + Participant's comment: The design of the health assessment is well done, as it is simple and pleasant to look at for the most part. The assessment is also easy to complete as the questions are easy and it is easy to answer the questions. However, the assessment does not seem very helpful as the suggestion on what to do next is unhelpful.

Task 3: Find useful mental health resources

- + Successfully complete the task (Y/N): **Y**
- + Total time taken (end time - start time) : **225 seconds**
- + Number of errors: **2** errors
- + Most common type of errors (wrong navigation/wrong form input/...) TAKE SCREENSHOT: ___
 - 1) Participant did not know that the buttons highlighted in the screenshot below were clickable, causing her to only use the resources that were featured and the search bar to look for resources. This is a severe presentation issue because the

participant missed out on a lot of resources due to poor design of those buttons.
Need to make it more obvious that the buttons are clickable



- 2) When using the search bar the participant would customize the search settings to help her find a specific resource about time management. In the type category, it tells you how many videos, articles and infographics are available to you for what you searched. However, after putting in the category and type, the number in the type category doesn't change. So the participant was left confused on why in the search setting it was saying 132 articles available, but only 5 popped up. This caused her to try using the search bar again, but the same issue occurred.

Home / Search results

2. Participant then changed category to study-life-Social Balance, however, only 5 articles were suggested

Search results
1. Participant searched for articles about time management, and 132 articles were suggested

Q time Category Study-Life-Social B...

All	video : 7
	article : 132
	Infographic : 2

3. Participant was confused as to why the application was saying 132 articles available but only 5 were showing up. Failure to update articles available confused the participant

All results

Prioritizing and time management
When you're feeling overloaded with assignments and work, it's important to prioritize tasks and manage your time wisely...

Student support

Resource

How To Build a Study Schedule

- + Satisfactory (scale 1 to 7): **5**

Overall, how difficult or easy did you find this task?



+

- + Justification for the rating (why): The process of finding a resource was mostly easy, however, there were a lot of options to choose from and the resources could have been organized better. Furthermore, the search box could be improved to allow a smoother way of finding a resource.
- + Participant's comment: Overall, the design of the website when it comes to finding resources is nice and pleasant to look at. One suggestion is to make the buttons more noticeable, so it would be easier to find resources.

Task 4: Contact a counselor

- + Successfully complete the task (Y/N): **Y**
- + Total time taken (end time - start time) : **95** seconds
- + Number of errors: **0** errors
- + Most common type of errors (wrong navigation/wrong form input/...): **N/A**
- + Satisfactory (scale 1 to 7): **7**

Overall, how difficult or easy did you find this task?



+

- + Justification for the rating (why): It was fairly easy to connect to a counselor via text. After filling in some more information, I was quickly able to talk to a counselor. The whole process of contacting a counselor was fast and straightforward and there was no issue with the connection between the counselor and I.
- + Participant's comment: very pleasant experience, and it was also nice to be able to chat with a professional.

Part 3: Post-test questionnaire (base on System Usability Scale - SUS):

- Reference:
<https://usabilitygeek.com/how-to-use-the-system-usability-scale-sus-to-evaluate-the-usability-of-your-website/>

- Measures:

Use this scale next to a question

	Strongly disagree				Strongly agree
1. I think that I would like to use this system frequently					
	1	2	3	4	5

- Questions: (Clarify if they confuse)

1. I would like to use this app frequently: **4**
2. I found the app unnecessarily complex: **2**
3. The app was easy to use: **4**
4. I would need technical support to help me use this system: **1**
5. I found various components (profile, assessment, booking) were well integrated: **4**
6. The app is too inconsistent when transitioning between components: **2**
7. I imagine most people would learn how to use this app quickly: **5**
8. The app is too cumbersome (annoying) to use: **2**
9. I felt confident when using this app: **4**
10. I need to prepare and learn a lot of things before using this app: **1**

Total SUS score **82.5/100**

Part 4: Feedback

- What did participant think about the app overall:
 - Overall, the participant thought the app was well designed as the user interface was fairly easy to navigate and therefore, it was easy to find help. The participant liked how fast it is to connect to a real professional. There were some aspects of the app's design that took some time to learn. For example, new users may find it hard to locate where the health assessments are. However, with a little experience, you can learn easily how to navigate the app. In terms of helping with your mental health, the participant found that the app's resources were not very useful but the ability to chat to a counselor was helpful.
- What aspect(s) they like most about the app:
 - The participant really liked how easy it was for her to connect to a counselor and she liked how easy and intuitive it was to create a profile. Thus, whenever she thinks she needs to chat to a counselor she knows she will be able to connect with a counselor easily and quickly. Furthermore, as the participant likes her privacy, she knows that anything said will be kept confidential.
- What aspect(s) they hate most about the app: By far the participant did not like and did not find the health assessment useful. She complained how the assessment was unhelpful as she already knew what was wrong with her mental health, and that she instead wanted a way to feel better. I think that the health assessment would work better on people who are more uncertain about their mental health and will like an assessment to get a better understanding of their mental health

Facilitator 4: Gurinder

Thank you for agreeing to help us assess our software. We are taking a course, CMPT 363, at Simon Fraser University that involves the design computer software, and would like you to help us evaluate our design. In this session, we will ask you to work with an existing application or a paper or interactive software mock-up of our design and to help us evaluate its clarity and simplicity. We are evaluating the software, not you. Any difficulties that you may encounter while using the software will help us locate problems with our interface design.

This usability study is completely voluntary. You may decline to answer any question or stop the study at any time and for any reason. Any data gathered up to the point of stopping the study will be destroyed. If you are a student at Simon Fraser University, this interview will have no effect on your grades in any courses. The only data we will gather will be written notes. These notes will only be seen by our team members, our instructor, and our teaching assistant and will be destroyed at the end of the course. Your name will not be attached to any gathered data, but rather a unique ID code such as "Participant A".

Concerns or Complaints

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, you may contact Dr. Lawrence Kim at lawkim@sfu.ca.

Do you agree to the following: I have read and understood the subject information and consent form and freely consent to participate.

Yes

No

Selecting yes indicates that you consent to participate in this study and that you are 19 years of age or older. Select no if you wish to decline or are under 19 years of age.

CMPT 363 Online Usability Testing Consent Form

Name: Gurvir Bhogal

Signature: Gurvir Bhogal

Part 0: Preparation

1. Introduce yourself -> Inform why we are doing this (market study to improve products, NOT working on assignment) -> Get participant to sign the consent form (need this for the appendix) -> let them know the process is voluntary and can stop at any time
2. Location: my house
3. Time: 4:00 pm

4. Number of participant(s): 1
5. Device used (phone/laptop/...): iphone 11
6. Application version (MySSP version): Latest

Part 1: Pre-test questionnaire

7. Chit chat and ask questions (in a form of conversation NOT interrogation!) -> ask them open questions (example: What is ...? Have you ever...?) NOT guiding questions (Do you...? Are you...?)
8. Participant's name: Gurvir
9. Participant's age: 20
10. Participant's occupation (secondary/high school/university? if student): SFU student
11. Participant's relationship with tester: sister
12. How participant is recruited: Asked at home for a volunteer
13. Participant's most used technology (smartphone/laptop/desktop/...): smartphone
14. Level of confidence with participant most used technology (scale 1 to 5): 5
15. When participant spend the most time with the most used technology (before bed/at work/...): at home throughout day.
16. Participant's current goals (school/make friends/...): finish school
17. Participant's current frustrations that affect current goals (family/school/work/...): school
18. How participant cope with the current frustrations (netflix n' chill/hang out...): spend time with friends and family.
19. Obstacles that participant face when coping (no one to talk to/expensive therapy...): Not knowing what resources are available.
20. Let participants ask questions before begin testing

Part 2: Usability testing

- Reference:
<https://usabilitygeek.com/usability-metrics-a-guide-to-quantify-system-usability/>
- Explain the testing process to participant:
The facilitator will explain that the amount of time taken to complete the test task will be measured and that exploratory behavior outside the task flow should not occur until after task completion. At the start of each task, the participant will read aloud the task description from the printed copy and begin the task. Time-on-task measurement begins when the participant starts the task. The facilitator will instruct the participant to 'think aloud' so that a verbal record exists of their interaction with the application. The facilitator will observe and record observations of user behavior, user comments, and system actions.

- Scenario: Create a scenario based on participant's answer in the pre-test questionnaire (example: you are stress due to schoolwork (current frustrations, you need to talk to someone (coping methods) to relieve the stress but unable to do so due to busy schedule (obstacles). Therefore, as a friend (relationship with tester), I recommend you to use this app to help with your problems. ->

get them to do the task using THINK OUT LOUD method (speak out loud their steps when do stuff)

Task 1: Create a profile

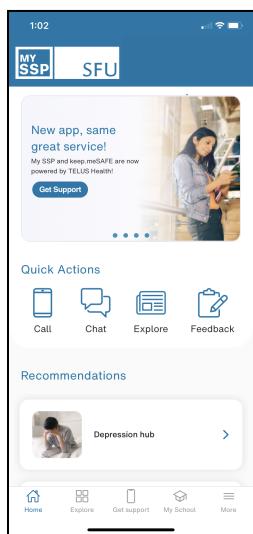
- Successfully complete the task (Y/N): Y
- Total time taken (end time - start time) : 63 seconds
- Number of errors: 0 errors
- Satisfactory rating (scale 1 to 7): 7
- Justification for the rating (why): All information needed was clear and easy to input
- Participant's comment: creating an account was simple and matches many other applications

Task 2: Complete the assessment and follow the instructions

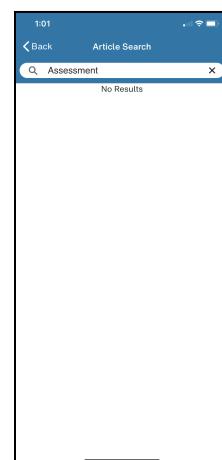
- Successfully complete the task (Y/N): Y
- Total time taken (end time - start time) : 87 seconds
- Number of errors: 2 errors

Most common type of errors (wrong navigation/wrong form input/...)

Couldn't find on home page



attempted to search for assessment

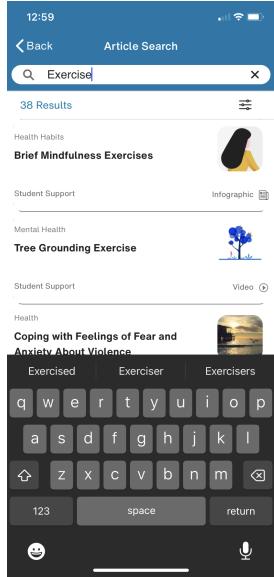


- Satisfactory rating (scale 1 to 7): 5
- Justification for the rating (why): difficulty finding assessments
- Participant's comment: hard to find where assessments are

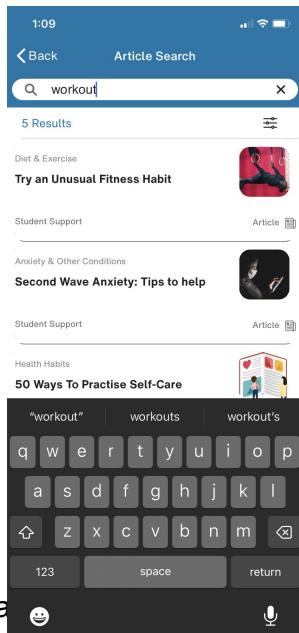
Task 3: Find useful mental health resources

- Successfully complete the task (Y/N): Y
- Total time taken (end time - start time) : 17 seconds
- Number of errors: 1 errors
- Most common type of errors (wrong navigation/wrong form input/...)

Wanted to find physical exercises first two results are mental exercises and the rest are other articles



Searched for workouts to find an article with some exercise ideas not too many results but found some exercises



- Satisfaction: 5
- Justification for the rating (why): Not many options found on the search
- Participant's comment: Tried to find exercises for mental health but not satisfied with the results given even though they were correct. Only first two results were really related.

Task 4: Contact a counselor

- Successfully complete the task (Y/N): Y
- Total time taken (end time - start time) : 15 seconds
- Number of errors: 0 errors
- Satisfactory (scale 1 to 7): 6
- Justification for the rating (why): Easy to find.
- Participant's comment: It's on the home page so it was easy to go to

Part 3: Post-test questionnaire (base on System Usability Scale - SUS):

- Reference:
<https://usabilitygeek.com/how-to-use-the-system-usability-scale-sus-to-evaluate-the-usability-of-your-website/>

Measures:

Use this scale next to a question

- Questions: (Clarify if they confuse)
- 1. I would like to use this app frequently: (2) no, I do not find it rewarding while not talking in person
- 2. I found the app unnecessarily complex: (4) To use chat features Is simple but everything else is not organized well and can be hard to find.
- 3. The app was easy to use: (3) It is relatively simple to call and chat but not much else.
- 4. I would need technical support to help me use this system: (1) No
- 5. I found various components (profile, assessment, booking) were well integrated: (5) Yes
- 6. The app is too inconsistent when transitioning between components: (1) No everything is consistent
- 7. I imagine most people would learn how to use this app quickly: (5) yes should be able to use after a couple of attempts
- 8. The app is too cumbersome (annoying) to use: (4) not a fan of the explore page as search results aren't very helpful
- 9. I felt confident when using this app: (4) yes
- 10. I need to prepare and learn a lot of things before using this app: (1) don't need to prepare much

Total SUS score **70/100**

Part 4: Feedback

- What did participant think about the app overall: Useful as a chat and call app for help but everything else is pointless and can be found on internet.
- What aspect(s) they like most about the app: Chatting is very simple
- What aspect(s) they hate most about the app: Explore page does not have enough articles and results aren't satisfactory