

Mind Matters

CSCI 4620U: Project Part 2a:
Requirements Analysis Plan & Research Instruments

Purpose

To gain experience in creating an appropriate research plan and research instruments to gain an understanding of your stakeholders, their needs, and their current technology.

Your Tasks

Part 1: Research Questions (10%)

The purpose of our research is to narrow down the main mental health issues which people are going through which can range from loneliness, anxiety and depression while analyzing the causes of these issues. The reason for seeking this discovery through research is to find effective ways to help people dealing with mental health issues.

Some questions we'd like to have answered through our research is, "What effects have lockdowns [during the COVID-19 pandemic] had on people's mental health", "When people are going through a mental health crisis and they wish to speak to someone else, do they prefer to speak anonymously or have their communication be more personal", "What are the benefits and downsides of social media use with regards to mental health", "Do people prefer to communicate in person or online".

These are just some questions that will help us determine the direction our research will take and will help us better understand what issues people face with regard to mental health. Specifically, this research will guide how we develop our project and which features will be most helpful to the demographic we are trying to reach.

Part 1: Research Plan (25%)

Our ideal stakeholders will be people who are interested in finding a solution for many mental health related issues caused during the pandemic such as anxiety, depression, and loneliness. We will be speaking to many different people of different ages to get everyone's input to get a solid understanding of the affected range. Since going out and recruiting people won't be an option due to current circumstances, we will be recruiting those around us such as family, friends, cousins, and neighbours.

The research methods we will be using are a questionnaire, as well as a semi structured interview. Our semi structured interview will allow participants to elaborate and provide us with more information, this will also allow us to analyze the way they answer certain questions. We will give all of our participants an introduction of our study and let them know that our goal is to try and create a solution for the mental health problems most people have faced due to the pandemic, we will ask them to sign a consent form and let them know that they don't have to answer any questions they are not comfortable answering.

Research Protocol Template

1. Project Title: Mind Matters

2. Investigator:

Mahnoor Yousaf

3. Purpose: To analyze the main cause for mental health issues people have gone through during the pandemic, such as loneliness, anxiety, and depression. We will be using this study to find an effective way to help and provide a solution for those struggling with these issues.

4. Concept: Our idea is to create a mental health app which will be designed in a way to help people overcome their loneliness, anxiety, and depression. We will use our study to find the causes of these issues and use that information to incorporate various features while allowing them to interact with other people experiencing the same issues and develop relationships.

5. Process to be followed:

1) Give the participant an introduction of our study and let them know what our goal is and how we are trying to create a solution for the mental health problems people have faced due to the pandemic

2) Ask the participant to sign a written consent form to take part in the study.

3) Once the participant has signed the consent form we will email them a copy of the questionnaire (google form) to fill out and ask them to complete it within a few days.

4) At the end of the questionnaire we will have a section for the participants to add any comments that they feel like were left out in the questionnaire.

5) Once the participant has filled out the questionnaire we will thank them for participating in our study.

6. Participant selection: Since we might not be able to go out and find participants due to the current circumstances, we will be recruiting people around us such as friends, family, cousins, or neighbors. There are no specific characteristics we will be looking for in participants.

7. Relationships: Friends, Family, Cousins, neighbors

8. Risk: There may be some emotional risks with our study, participants might have to mention personal issues that they have faced and may feel some sort of embarrassment. We will try to make our participants feel as comfortable as we can. Since we will be conducting our study through a questionnaire, there might be less emotional risks since we will not be speaking to the participants directly

9. Benefits: There will be no benefits for the participants.

10. Withdrawal: Participants are free to withdraw before or at any time during the study without the need to give any explanation.

11. Consent details: We will brief the participants about the purpose of the study, and explain the attached consent form to them, and ensure that they consent to participate and sign the consent form.

12. Compensation: Participants will receive no compensation.

13. Information sought: Our study will be conducted through a questionnaire (google form)

14. Confidentiality: Information will be kept confidential by the investigators. Names or other identifying or identified information will not be kept with the data. The only other use will be to include excerpts or copies in the assignment submitted, but names and other identifying or identified information will not be submitted.

Part 2: Research Instruments I (20%)

Semi-structured interview

This instrument will be useful in showing us what treatment currently exists for people struggling with mental health issues and how effective those methods are. It will also provide a more in-depth look at the day-to-day struggles a person dealing with mental health issues face.

Have you had experience with therapies online and face to face?

Follow-ups:

- *If yes,*
 - *Are therapies delivered through digital technology as effective as those delivered face-to-face?*
 - *What made / didn't make it as effective?*
- *If no, (Updated)*
 - *Do you believe there is a better way to combat mental health besides therapy? If yes, then what methods would you suggest?*

Tell me about your sleeping habits over the past few months. Have you noticed any changes? Difficulty sleeping? Restlessness?

Follow-ups: (Updated)

- *If yes to sleeplessness/restlessness/changes,*
 - *Why do you think that may be the case? (anxiety, depression, stress...?)*

Do you feel 'supported' by others around you – your friends, family, or otherwise.

Follow-ups:

- *If yes,*
 - *What kind of support do you find works best for you? (spending time with them, talking to them, texting, ...)*
- *If no, (Updated)*
 - *Why not?*

Are you having trouble focusing at work or school?

Follow-ups:

- *If yes, **(Updated)***
 - *Are you able to focus better at home? (determining if environment plays factor in focus/mental health)*
- *If no, **(Updated)***
 - *Do you enjoy work or school? (determining if enjoyment is a factor of focus/mental health)*

Can you concentrate on the things you enjoy, why or why not?

Questionnaire

We chose this instrument because it will provide us with a direction to go in with regard to which mental health issues we should focus on tackling with our project. The responses we receive will tell us which issues are most prevalent and also tell us if our project should be more community focused or professional.

Link: (Please see answer options in google forms)

https://docs.google.com/forms/d/e/1FAIpQLSc4OTQvZYwOJSxncVNtjuQmbvs6XyEKskXBWERHrXLeTbQrDg/viewform?usp=sf_link

Questions to be asked in the questionnaire:

Basic Information

How old are you? (Give option to fill out)

Gender? (M, F, Prefer not to say, Other)

*Rate yourself on a scale of 1-5 between loneliness, depression and anxiety: **Update:***

How often do you feel depressed?

- *scale (1-5): Not Often -> Often*

How often do you feel anxious?

- *scale (1-5): Not Often -> Often*

How often do you feel lonely?

- *scale (1-5): Not Often -> Often*

Sub questions: Depression

*Little interest or pleasure in doing things: **Update** Do you have little pleasure in doing things which interest you?*

Do you have trouble falling asleep, staying asleep, or sleeping too much?

Do you have poor appetite or overeating issues?

Sub questions: Anxiety

Have you ever experienced an “attack” of fear, anxiety or panic ?

*Do you have trouble relaxing? (**Updated** answer from yes/no to “yes, but not without something to calm me down” and “No, I am calm regardless of the situation”)*

Do you see yourself becoming easily annoyed or irritable?

Sub questions: Loneliness

How often do you feel unhappy doing so many things alone?

How often do you feel you have nobody to talk to?

Do you find it easy to make new friends?

Do you feel you have lots in common with those around you?

Do you feel like you are unable to reach out and communicate with those around you due to the pandemic ?

Community vs Professional

Who do you go to when you require mental support?

(friends, family, therapist, ... ,other)

What medium do you use in order to get that mental support?

(video call, in-person consultations, phone calls, ...)

How many close friends do you have ?

(this will give us an idea on how many people will require/if we need to implement some sort of feature that will help this case, professional does not necessarily require friendship)

Part 3: Research Instruments II (35%)

Given feedback, changes that should be made to the two research instruments which were chosen would be to make questions less wordy and be more specific instead of using only a yes/no as options in the questionnaire. The changes which were made would be “Do you have little interest or pleasure in doing things?” instead of giving two options, a change would be made to pinpoint the expression of pleasure when doing things which interests the person. Another change which was made would be when asked to “rate yourself on a scale of 1-5 between loneliness, depression and anxiety”, a change was made to update how often each mental health issue was faced because this format would give us a more direct solution. Another update was made to most of the answer key switching from yes/no to more detailed options, for instance, a question asked was “do you have trouble relaxing?” and the updated answer went from yes/no to “yes, but not without something to calm me down” and “No, I am calm regardless of the situation”. This change would provide a more detailed answer as to what to look into when looking at anxiety.

In the portion of the semi-structured interview the improvements which would be made is to remove the 4th question and make the questions in the middle more open ended. We decided to remove the 4th question “Do you find pleasure in things that usually make you happy?” because it was vague and wouldn’t give us a detailed answer. To improve the middle-ended questions we made sub questions, for instance, one of our questions asked if you are having trouble focusing at work or school? If yes, are you able to focus better at home? (Determining if environment plays a factor in focus/mental health), if no, do you enjoy work or school? (Determining if enjoyment is a factor of focus/mental health). We decided to make the questions more open-ended and focused on sub-questions/follow-ups during the interview in case they don’t have trouble focusing on work to determine if enjoyment was a factor of the change. We also re-worded most of the questions to make it easy to understand based on the feedback. Moreover, these are the changes and the reason as to why the changes were made in our research instruments.

Part 3: Consent Form (10%)

Completed and submitted the posted on canvas

Notes/Feedback from meetings:

- Questionnaire:
 - Q1 is worded awkwardly and I feel could be more specific, but besides that, the optional answers make it more open ended and provide a better feel for the user, so good work on that.
 - Some of the questions are awkward, For the non-binary questions give a couple more options such as generally yes/no.
- Interview:
 - Q4 could use some rewording, but the message is still clear, but besides that I feel like the question you chose properly applies to an interview scenario, well done.
 - I felt it was also well done, with very few awkward questions, other than the 4th.
 - To improve it I would make the questions in the middle more open ended and change the wording of #4.
 - It seems you may have reused a few questions at the end, just try and extend them to work in the interview.
 - Some questions were not skippable, The first three questions are related but if your answer to #1 is no, then you can't answer the next two.