REB file #:  2022-6028

March 5, 2022

Dear Professor,

Thank you very much for reviewing my application for Research Ethics Board (REB) approval of my research which is a core component of my program of Master of Computer Science, Dalhousie University. I would like to thank you for your patience to go through the document and come up with a set of recommendations to improve it further, clarify ambiguities and/or inconsistencies wherever needed and providing it as a list of bullet points. I highly appreciate for your support and hope it will help me to enhance the study design in more consistent and robust way.

As per your recommendations, I have tried to update the document and addressed recommendation list in the following section with precise reference to section and page numbers of the updated document. I have highlighted the changes with yellow background for your easy identification and perusal.

Hope you would be kind enough to manage some time to go through the revised document and thereby take necessary step to approve the ethics approval of my research so that I can commence the user study.

Sincerely Yours,

Md Rashidul Islam

DalID:B00870359

**RECOMMENDATION:**

2.1 LAY SUMMARY

This summary is not written in lay language. Please revise to ensure someone outside of the field of computer science could understand it.

> Updated. Section 2 (2.1.1), Page: 3

2.3 RECRUITMENT

2.3.1 Please explain why 32 participants is the required number of participants for this study.

> We have four sections in the survey including one component of a published paper and each component has 8 questions. We have used [counter balancing](%09https:/www.yorku.ca/mack/RN-Counterbalancing.html) method among four sections. That means, order of the sections will appear in balanced-latin-square (explained in Appendix D, Page: 23, Figure-1) approach and questions will come up randomly for different users. To ensure equal priority of the sections and to make the study fair, we decided to select (4 sections x 8 questions = 32) participants.

2.3.2 The application describes a two-step recruitment process – first, individuals are sent an email via email distribution lists. They then contact the researcher who sends them an email with screening criteria and this email referenced in the application as Appendix B. Please include the email that will be sent initially (the first step), as this appears to have been omitted.

Append the recruitment poster that will be posted on “physical bulletin boards on campus” as stated in this section.

> Added in Appendix B, Page: 21 – (Initial Email and Poster in Bulletin Board on Campus). We will use the same content for both.

2.4 INFORMED CONSENT PROCESS

2.4.2 Confirm that if participants request to withdraw from the study after the data collection session that their Teams/Skype recording will also be deleted in addition to their survey responses.

> Updated (Section 2, Page: 6)

2.6 PRIVACY AND CONFIDENTIALITY

2.6.1 D) Please discuss the audio and screenshot recordings that will be taken and how these data will be stored, transferred, and managed. As voices are personally identifiable, recordings require adequate safeguards.

> Updated (Section 2.6.1 D, Page: 10).

As well, the security risks for Skype versus Microsoft Teams will likely be different. Please refer to [FAQ   
#13](https://www.dal.ca/dept/research-services/responsible-conduct-/research-ethics-/faqs.html) on the Research Ethics website for some additional information and considerations on recording research sessions and incorporate the information into the application where applicable. If both Skype and Microsoft Teams are offered the security information about each platform should be included in the application and outlined in the consent form.

> As per that guideline of [FAQ #13](https://www.dal.ca/dept/research-services/responsible-conduct-/research-ethics-/faqs.html), we will not take participant’s video, since participants facial appearance is not important for our research. We will take only audio and but just screenshare.

Updated (Section 2.6.1 D, Page: 10), (Appendix A, Page: 19)

It says in section 2.6.2 that “the data will be stored anonymously and will be automatically destroyed after successful completion of the research.” How will audio recordings be stored “anonymously” as voices are inherently identifying?

> We will not take facial capture but screensharing with audio only. Since every participant will be unknown, there is no way to identify them with audio only. Researcher will be responsible to keep the data strictly secret and will not share or disclose it to anyone.

Updated (Section 2.6.2, Page: 10)

2.6.2 It says, “For extra care, the researcher may store another copy of the data in their own secure repositories.” The REB needs to know precisely where all copies of data are stored and how they are managed. Please be specific about this and whether additional copies will or will not be stored.

> Primarily, we thought to keep another backup for worst case(server crash) but later we got to know that University maintains Dal server backup, so we do not need to be worried about it.

2.6.5 Because Microsoft Teams is being used to record the interviews, the answer to this question is “yes”; Microsoft Teams currently routes audio and video recordings through the US. Participants must be made aware of this in order to provide informed consent. A statement such as this can be included in the consent form:

“The researchers will use their Dalhousie University credentials for the Microsoft Teams meeting, which will ensure that the Teams meeting recordings are securely stored in Canada. During the live Teams meeting, audio and video content is routed through the United States, and therefore may be subject to monitoring without notice, under the provisions of the US Patriot Act while the meeting is in progress. After the meeting is complete, meeting recordings made by Dalhousie are stored in Canada and are inaccessible to US authorities.”

For more information, please review [FAQ #13](https://www.dal.ca/dept/research-services/responsible-conduct-/research-ethics-/faqs.html) on the research ethics webpage.

> Appendix A, Page: 19 (5th and 6th paragraphs)

Note that if Skype is used, the researcher should explain the conditions around if/where the recordings are accessible from outside Canada.

> As per [FAQ #13](https://www.dal.ca/dept/research-services/responsible-conduct-/research-ethics-/faqs.html), since we do not need the participant’s facial appearance for our study, we will only record audio and participants screenshare(computer screen).

Appendix A, Page: 19 (6th paragraph)

2.7 RISK AND BENEFIT ANALYSIS

2.7.2 There does not appear to be any direct benefits of participating in the study. Please state this explicitly here and in the consent form.

> [Section 2.7.2, Page: 12], [Appendix A, Page 19, 2nd Paragraph)

2.9 RESEARCH TEAM

2.9.1 Please clearly outline the roles and duties of the PI and the supervisor.

> Section 2.9.1, Page: 13

CONSENT FORM

**Purpose and Outline of the Research Study**

Revise this section to be written in lay language; individuals outside of computer science will not understand this description.

> Revised. Appendix A, Page: 18

**What you Will be Asked to do**

Please specify that participants will be required to use MS Teams or Skype.

Inform participants that the sharing of their screen and their audio will be recorded.

Inform participants they will have to complete surveys.

Inform participants of the time commitment in this section rather than the end.

> Appendix A, Page: 19

**Possible Benefits, Risks and Discomforts**

Revise the benefits statement to state that there are no direct benefits of participating.

> Revised. Appendix A, Page: 19

Participants *will* be recorded so it should not say they “may” be recorded. The recordings aren’t for “future use” they are for this study. Revise.

> Removed. Because we said it already in **What You Will Be Asked to Do** section.

Update the section **How your information will be protected** to align with comments in 2.6.1 and 2.6.2 above.

> Updated. Appendix A, Page: 19 (4th paragraph)

Inform participants that their data will be stored with their email addresses, so it could be identifiable.

> Updated. Appendix A, Page: 19 (4th paragraph)

The following statements are problematic: “No information about your participation will be disclosed by us unless it requires by law or our professional obligations. If you inform us about abuse any kind of information, we are required by law Appendix A – Consent Form Ethics submission (prospective) 19 to contact authorities. If we notice that you are at an immediate risk of harming yourself or other people, we will definitely and instantly seek for assistance from proper authority by our professional code of ethics so that they can take necessary steps for the remedy.”

This study does not prompt for any information that would reasonably result in someone revealing any type of abuse, etc. What “professional obligations” and “professional code of ethics” are being referred to? As well, only abuse of a child or an adult in need of protection legally requires reporting to authorities, both of which would be extremely unlikely to arise in this research. Either the researcher needs to provide a comprehensive explanation in 2.6.4 about why these statements are included here or remove the quoted paragraph entirely (preferably the latter).

> Deleted those unnecessary statements.

What specifically does it mean to “clean up” personal identifying information? Please clarify.

> As we mentioned already, we will save with their email address and will delete files with our own responsibility after study evaluation, so that clause is obsolete. Deleted it.

Section 2.4.2 says they have two weeks to withdraw data and here it says one week. Please reconcile.

> 1 week, corrected. Section 2, Page 6.

The data will not be anonymized, it will be de-identified. Please revise.

> Section 2, Page 6.

Remove the sentence “Even if you want to get individual results then we cannot provide it due to the anonymity issue.”

> Removed

There needs to be a way to document consent. Earlier in the application it says that consent will be recorded via a web survey. Ensure this mechanism is clear in this consent form. Include a consent statement and a button for people to click if they agree to participate.

> Updated both places.

Section 2.4.1 B, Page: 6

Include options for participants to allow you to use their quotes (per 2.6.3).

> Added page-20, second para

RESEARCH INSTRUMENTS

Appendix D is titled “Examples and Questionnaire Module”. Please provide all the stimuli that participants will see, not just examples.

> We have provided all required stimuli for the participants.

If we consider “CA + Bubble” then we see:

**Page- 27** shows the example and description on how to perceive the parameters and detect the expected cell.

**Page-28** shows the questionnaire what participant need to answer based on the parameters for each question and chart at the top of the page.