Usability Testing Survey
Software Engineering

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Table 1: Revision History

Date	Developer(s)	Change
14 March 2025	Sumanya Gulati	Initial Draft
17 March 2025	Sumanya Gulati	Add list of navigation tasks
20 March 2025	Sumanya Gulati	Add user details and observations
26 March 2025	Sumanya Gulati	Add survey results

1 User and Session Details

Table 2 contains details of each subject who agreed to participate in a Usability Testing Session.

Subject Name	Dr. Charles de Lannoy
Subject Role	Project Supervisor
Test Conductor(s)	Sumanya Gulati
Test Date	20 March 2025
Test Mode	In-person
Start Time	12:00 PM
End Time	12:50 PM
Additional Notes	-

Table 2: User and Session Details

2 Navigation Tasks to be Performed

For the purpose of this usability session, the subject has been asked to perform the following tasks, in order:

1. Upload a data sheet.

2. Upload another data sheet with the same experiment date.

3. Locate this data sheet in the table view page.

4. Navigate to the experiment table and perform the following operations -

   (a) Add a new row.
   (b) Delete an existing row.
   (c) Add a new column.
   (d) Delete an existing column.

5. Calculate the average of any couple of values in the experiment table.

6. *(Optional):* Perform additional excel-based functions on the values in the experiment table.

7. Search for a datapoint in the table using the column and value.

8. Generate a graph using all available customization options for the experiment data from **September 26**.

3   User Answers

Users will be asked the following questions to gauge the usability of the application during a user demo assessment. These questions relate to the assessment of non-functional tests NFR-LF1, NFR-UH1, NFR-OE2, and NFR-MS1 outlined in the Software Requirements Specification (SRS).

Navigation and Ease of Use

(a) How easy or difficult was it to navigate through the application? *(Very easy - Somewhat easy - Neither easy nor difficult - Somewhat difficult - Very difficult)*

- *Answer:* Somewhat easy

(b) Rate the ease of finding a specific button/feature related to the task you were trying to perform. *(Very easy - Somewhat easy - Neither easy nor difficult - Somewhat difficult - Very difficult)*

- *Answer:* Somewhat difficult

Visual Appearance

(a) On a scale of 1 to 5, how would you rate the visual appearance of the application? *(1 - Too cluttered and unappealing, 2 - Somewhat unappealing 3 - Neutral, 4 - Somewhat appealing, 5 - Very clean and appealing)*

- *Answer:* 4

(b) Is the displayed content (text, tables, graphs) clear, legible and easy to understand?

- *Answer:* The text should be larger, especially on the graph axes. The tables are clear and legible and the graphs need to have axes updated with selected parameters.

(c) Did the design and layout appear consistent to you across the entire application? If no, please point out any inconsistencies you noticed.

- *Answer:* Yes, consistent.

(d) Did you encounter any unidentifiable symbols or icons? If yes, please describe them.

- *Answer:* Yes, the queries page. Other issues with icons have been described in Section 4.

Learning

(a) How easy or difficult was it to learn how to use the different features of the application? *(Very easy - Somewhat easy - Neither easy nor difficult - Somewhat difficult - Very difficult)*

- *Answer:* Somewhat difficult as the labels need to better reflect their purpose.

(b) Were there any features or functions you found challenging to understand or figure out? If yes, please describe.

- *Answer:* Performing calculations on the rows and columns was not intuitive. This needed better layout design. Also, building the graph needs improvement to better select parameters, make edits after a selection was made and identify the proper data to use.

Responsiveness

(a) Did you experience any noticeable delays or interruptions while using the application? If yes, please describe them.

- *Answer:* No delays.

Overall Experience

(a) On a scale of 1 to 5, rate your overall experience using the application. *(1 - Very poor, 2 - Poor, 3 - Neutral, 4 - Good, 5 - Excellent)*

- *Answer:* 3

(b) Do you have any suggestions for improvements to enhance your experience with the application?

- *Answer:* See Sumanya's extensive notes in Section 4. It's on the right track, just a few improvements to organization, label clarifications, and graphical outputs needed.

4 Test Conductor Observations

4.1 Queries

1. For tasks 1 and 2, do the sheets have to be uploaded as data sheets or experiment sheets? How are they different?

2. Very hard to validate task 3 by having to do multiple look-ups.

3. For task 3, the subject had to spend roughly 2 minutes trying different format options to look up the file name in the experiment table.

4. For task 4, the subject was unable to find out which page to navigate to in order to perform the given actions.

4.2   Elements Behaving Unexpectedly

1. The calculations bar did not work despite multiple tries. The help/info button next to the bar did not help much. Thus, subject was unable to perform task 5.

2. For task 7, the search bar does not return all relevant values. Only a few values are displayed.

4.3   Additional Subject Feedback

1. Change home icon to something more intuitive and more descriptive of 'summary data'.

2. The queries page looks very cluttered and similar buttons and modals should be positioned together to help with user flow.

3. For edit functionality, there are no scenarios where the user should be allowed to overwrite imported data in the experiments table. User action should be restricted to add/edit values only to columns that were not imported from a data file.

5   Proposed Changes

- For query 1, rename 'data sheet' to 'raw data' and 'experiment sheet' to 'processed data' or 'summarized data/results'.

- For query 2, add date and timestamp to the dashboard for when a data sheet was uploaded.

- For query 3, add a pop-up or a help button mentioning that file ID must be entered in the format *yyyy-mm-dd* to avoid confusion.

- For query 4, rename queries page and replace icon to something more relevant.

- Separate the edit and calculations bar in the queries page. Place the edit button along the set column types button and the search bar, separate from calculations.

- For task 7, allow for more comprehensive search functionality. For example, seraching *1.5** should display all values that start with 1.5 such as 1.58, 1.534 etc.

- Implement an edit button for graph generation so user can select different parameters for a graph without going through the entire form every time.