INFO 3315 Human Computer Interaction

Worksheet Week 6 – Data Analysis

THE UNIVERSITY OF SYDNEY

Part 1 – Analysing our previously collected SUS data

Data available from Google Docs link
Copy of the questionnaire is available here
Please download the file to work on a local copy to proceed further with the task.

In this tutorial, we will analyse the data that was collected from everyone in Week 1 about Ed and the Canvas discussion board. The instructions provided are for Excel.

a. Inspect the columns.

i. What does each column represent?
ii. What does the first row represent?
iii. What does the second row represent?
iv. Do you need to rename specific columns in the first row? If yes, which columns will you rename and why?

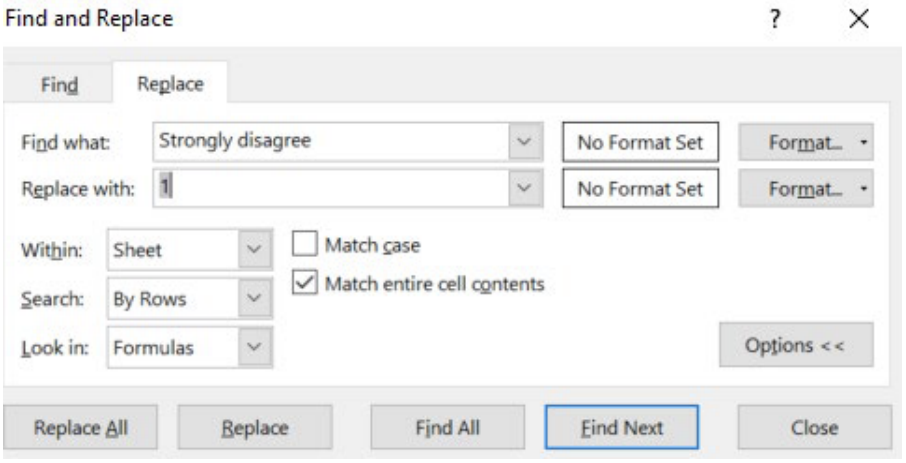
b. Clean the data by inspecting the data. Did you spot any anomalies in the responses?

c. Code the data in Columns H to Q according to the following scheme:

Raw data	Code
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

Hint:

1. *Highlight the columns and press CTRL-F.*
2. *Select the 'Replace' tab. For example, to code 'Strongly disagree':*



3. *Click 'Replace All' once you have set 'Find what' to the values in the Raw data column and 'Replace with' to the values in the Code column.*
4. *Check your spreadsheet to make sure that the values are properly coded.*

d. Calculate the System Usability Scale score for Canvas discussion forum (starting from column H).

Hint:
Step 1: Convert the user ratings from the 10 questions into points

For odd numbered questions 1, 3, 5, 7, 9:

Value = [User Rating] – 1

For even-numbered questions 2, 4, 6, 8, 10:

Value = 5 – [User Rating]

Step 2: Add up the points from the 10 questions into a user's total points

[Question 1: value] + [Question 2: value] + ... [Question 10: value] = XX total points from user 1

Step 3: Multiply the user's total points XX by 2.5 to get an individual user's score.
**This converts the scale to be out of 100.*

[Total points from user 1] x 2.5 = User #1 score

Step 4: Repeat steps 1-3 for all users, and then average all user's scores together to get a total SUS score:
(User #1 score + User #2 score + User #3 + [etc.]) / # of users = SUS Score

A score of 68 is considered to be "average", score greater than 68 indicates that the interface's usability is above average, score below 68 indicates that the interface's usability is below average.

e. Explain the SUS score for Canvas discussion forum.

f. Drawing a conclusion:
- i. What can you conclude from your results in Question (e)?
- ii. Do the results give insights to improve the interface of the discussion forums?
  - If yes, list out the improvements and explain how you arrive at this conclusion.
  - If no, explain what you can do during the session in Week 2 to gather the needed data.

[Optional] Challenge
Repeat the questions using another analysis tool, e.g. SPSS, R and compare your results.

Part 2 – Project work

1. Based on the requirements that you have gathered during the previous workshop, create a list of functions that your system should have.
   a. For each function, determine the task allocation between human (user) and system, i.e. which functions are under the system's control? Which functions are under the user's control?
   b. Identify functions that are related and explain their relationship by either creating an appropriate label to categorize the functions and/or presenting the order/sequence of their relationship.
2. Create a persona – a target user of your system
3. Create a scenario of your persona interacting with your system
4. Present your work to the class

You **may** (do not have to) include the functions, persona, and scenario in your reports.