There are four sections of the questionnaire where each section contains eight questions with similar pair of Value and Uncertainty combinations. In every section, we have placed the lookup chart (bubble or grid) at the left and legend at the right side. All questions are made by picking a value and uncertainty from the legend. So, participants are needed to carefully check the legend content and identify the suitable grid-cell or bubble from the chart based on given Value, Uncertainty/CA.

**CA + Bubble**

A picture containing pallette, cosmetic, checker

Description automatically generated Chart

Description automatically generated

Figure-1: Left (Bubble chart), Right (Legend of Value and CA)

**Questions:**

Question-1: Click on chart where <Value=56> and <CA=71>

Question-2: Click on chart where <Value=8> and <CA=52>

Question-3: Click on chart where <Value=48> and <CA=71>

Question-4: Click on chart where <Value=24> and <CA=71>

Question-5: Click on chart where <Value=16> and <CA=71>

Question-6: Click on chart where <Value=32> and <CA=33>

Question-7: Click on chart where <Value=40> and <CA=52>

Question-8: Click on chart where <Value=64> and <CA=90>

**CA + Grid**

A picture containing background pattern

Description automatically generated Chart, sunburst chart

Description automatically generated

Figure-2: Left (Grid chart), Right (Legend with Value and CA)

**Questions:**

Question-9: Click on chart where <Value=48> and <CA=71>

Question-10: Click on chart where <Value=40> and <CA=52>

Question-11: Click on chart where <Value=16> and <CA=71>

Question-12: Click on chart where <Value=64> and <CA=90>

Question-13: Click on chart where <Value=56> and <CA=71>

Question-14: Click on chart where <Value=24> and <CA=71>

Question-15: Click on chart where <Value=32> and <CA=33>

Question-16: Click on chart where <Value=8> and <CA=52>

**VSUP + Bubble**

Background pattern

Description automatically generated Chart

Description automatically generated

Figure-2: Left (Bubble chart), Right (VSUP Legend)

**Questions:**

Question-17: Click on bubble chart where <Value=19> and <Uncertainty=33>

Question-18: Click on bubble chart where <Value=27> and <Uncertainty=37>

Question-19: Click on bubble chart where <Value=11> and <Uncertainty=56>

Question-20: Click on bubble chart where <Value=51> and <Uncertainty=43>

Question-21: Click on bubble chart where <Value=8> and <Uncertainty=38>

Question-22: Click on bubble chart where <Value=36> and <Uncertainty=23>

Question-23: Click on bubble chart where <Value=34> and <Uncertainty=89>

Question-24: Click on bubble chart where <Value=66> and <Uncertainty=78>

**VSUP + Grid**

A picture containing chart

Description automatically generated Chart

Description automatically generated

Figure-2: Left (Grid chart), Right (VSUP Legend)

Question-25: Click on grid-cell where <Value=51> and <Uncertainty=43>

Question-26: Click on grid-cell where <Value=8> and <Uncertainty=38>

Question-27: Click on grid-cell where <Value=66> and <Uncertainty=78>

Question-28: Click on grid-cell where <Value=19> and <Uncertainty=33>

Question-29: Click on grid-cell where <Value=27> and <Uncertainty=37>

Question-30: Click on grid-cell where <Value=36> and <Uncertainty=23>

Question-31: Click on grid-cell where <Value=34> and <Uncertainty=89>

Question-32: Click on grid-cell where <Value=11> and <Uncertainty=56>

2.5.1 B

More specifically, the general study design will have two parts:

• a simple accuracy comparison of Chromatic Aberration (CA) with prior work (VSUP, blur) using random data in a heatmap visualization grid.

Do we need to implement similar thing with random data?

2.5.1 C

* Answers to the questionnaire questions (Appendix C) will be collected using Opinio at https://surveys.dal.ca/opinio/admin/folder.do

We will collect from our web application, isn’t it?

2.5.2:

Research question related discussion need to update since we no longer going to use Agree/disagree questions. All questions should carry 1 point since they are generated with fairly similar data.

2.5.3:

Participant payment receipt, how to pay?

Appendix A:

Need to update purpose and outline of the research study…. No agree/disagree questions.

Amazon gift cards

**Questions on System Usability Scale (SUS):**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. I think that I would like to  use this system frequently.  2. I found the system unnecessarily complex  3. I thought the system was easy  to use  4. I think that I would need the  support of a technical person to  be able to use this system  5. I found the various functions in  this system were well integrated.  6. I thought there was too much  inconsistency in this system  7. I would imagine that most people would learn to use this system very quickly.  8. I found the system very  cumbersome to use.  9. I felt very confident using the  system.  10. I needed to learn a lot of  things before I could get going  with this system. | Strongly  disagree  Strongly  agree   |  |  |  |  |  | | --- | --- | --- | --- | --- | | 1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree |  |  |  |  |      |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  |   1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  |   1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree   |  |  |  |  |  | | --- | --- | --- | --- | --- | | 1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  |   1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  |   1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  |   1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  |   1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  |   1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  |   1  disagree  2  disagree  3  disagree  4  Disagree4  5  disagree |

How mentally demanding was the task?

**Mental Demand**

1.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Very Low

Very High

How physically demanding was the task?

**Physical Demand**

2.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Very Low

Very High

How hurried or rushed was the pace of the task?

**Temporal Demand**

3.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Very Low

Very High

How successful were you in accomplishing what you were asked to do?

**Performance**

4.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Very Low

Very High

How hard did you have to work to accomplish your level of performance?

**Effort**

5.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Very Low

Very High

How insecure, discourages, irritated, stressed, and annoyed were you?

**Frustration**

6.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Very Low

Very High