

Appendix

Demographics Survey (filled before testing)

Plugin is the Carbon Buster animation

1. User ID

2. Age

3. How often do you shop online?

Mark only one oval.

- ☐ Everyday
- ☐ Once a week
- ☐ Once a month
- ☐ Once every three months
- ☐ Every year
- ☐ Never

4. Degree of Education

Mark only one oval.

- ☐ Elementary School
- ☐ Secondary School
- ☐ Apprenticeship
- ☐ Matura/BMS
- ☐ Bachelor
- ☐ Master
- ☐ PhD

5. From 1 to 5 how much would you say you are knowledgeable on CO2 pollution and environmental issues?

Mark only one oval.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

Busters Information Survey (filled at the end of task 1)

Plugin is the Carbon Buster animation

1. User ID

2. What percentage did you compensate for from your cart? (for 90% enter 90)

3. What was the biggest polluter of CO2 in your cart?

Mark only one oval.

- ☐ Production
- ☐ Transportation
- ☐ End of Life
- ☐ Materials
- ☐ I don't know

Only fill out the next question after you have done both iterations.

4. Did you prefer the checkbox or the plugin (choose 1)

Tick all that apply.

- ☐ Checkbox
- ☐ Plug-In

5. Why did you prefer one over the other?

Checkbox Information Survey (filled at the end of task 1)

Plugin is the Carbon Buster animation

1. User ID

2. What percentage did you compensate from your cart? (for 90% enter 90)

Only fill out the next question after you have done both iterations.

3. Did you prefer the checkbox or the plugin (choose 1)

Tick all that apply.

- ☐ Checkbox
☐ Plug-In

4. Why did you prefer one over the other?

User Experience Questionnaire (filled at the end of task 2)

Please answer every question to the best of your ability.

1. User ID

Task 1

When you had a budget and saved money

2. How many different input layouts did you come across?

Mark only one oval.

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

3. On a scale from 1-5, how accessible was it to change the CO2 compensation level on the plugin?

Mark only one oval. (1 = Hard, 5 = Easy)

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

4. On a scale from 1-5, how accessible was it to understand what the clouds meant?

Mark only one oval. (1 = Hard, 5 = Easy)

- ☐ 1
☐ 2
☐ 3

- ☐ 4
☐ 5

5. Did you ever know you could change the character on the CO2 Buster?

Mark only one oval.

- ☐ Yes
☐ No

6. On a scale from 1-5, how intuitive was it to change the character of CO2 Buster?

Mark only one oval. (1 = Not Very, 5 = Obvious)

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

7. On a scale from 1-5, how intuitive was it to hover over the clouds for more information?

Mark only one oval. (1 = Not Very, 5 = Obvious)

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

8. On a scale from 1-5, how intuitive was it to change the character and backgrounds?

Mark only one oval. (1 = Not Very, 5 = Obvious)

- ☐ 1
☐ 2
☐ 3
☐ 4
☐ 5

Task 2

When you had to maximise CO2 compensation

9. How many different input layouts did you come across?

Mark only one oval.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

10. On a scale from 1-5, how intuitive was it to use the continuous slider?

Mark only one oval. (1 = Not Very, 5 = Obvious)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

11. On a scale from 1-5, how intuitive was it to use the discrete checkboxes?

Mark only one oval. (1 = Not Very, 5 = Obvious)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

12. On a scale from 1-5, how intuitive was it to use the input box for CO2 compensation level?

Mark only one oval. (1 = Simple, 5 = Difficult)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

Thanks and have a nice day!

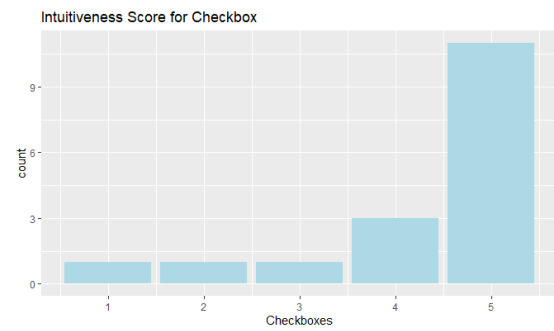


Figure 1: Intuitiveness Score for Checkbox

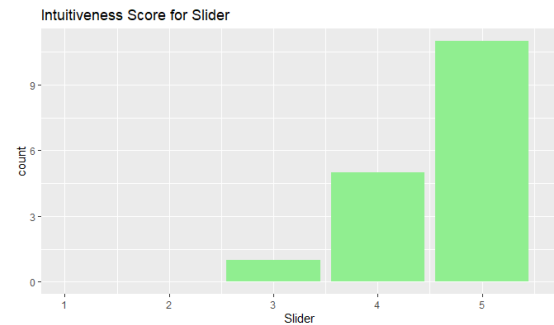


Figure 2: Intuitiveness Score for Slider

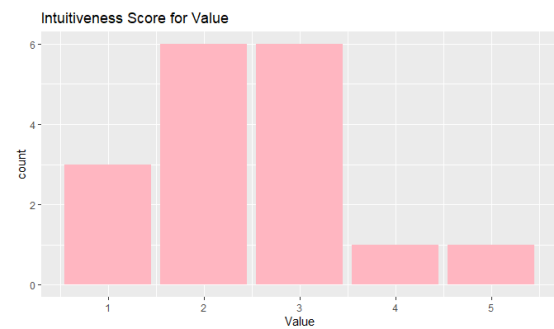


Figure 3: Intuitiveness Score for Value Input

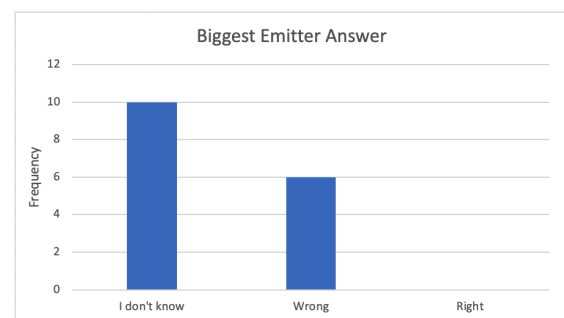


Figure 4: Biggest Emitter Answers

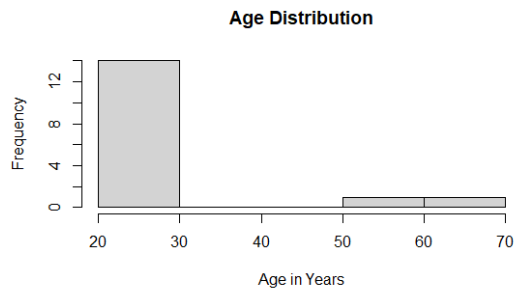


Figure 5: Age Distribution

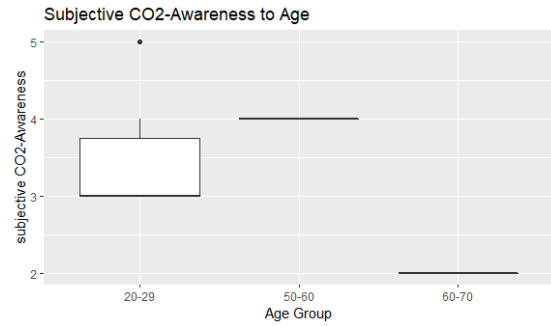


Figure 9: Subjective CO2-Awareness to Age

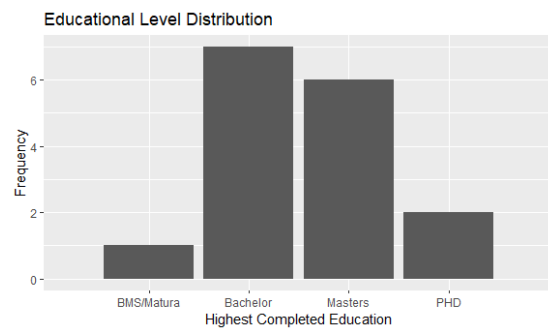


Figure 6: Educational Level Distribution

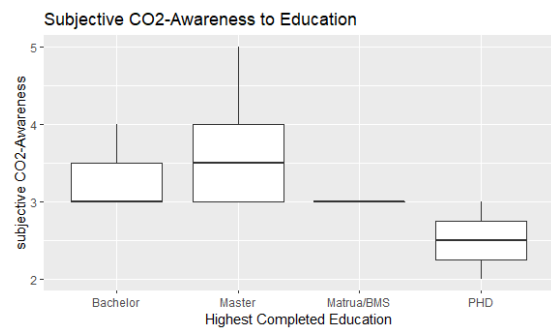


Figure 10: Subjective CO2-Awareness to Education

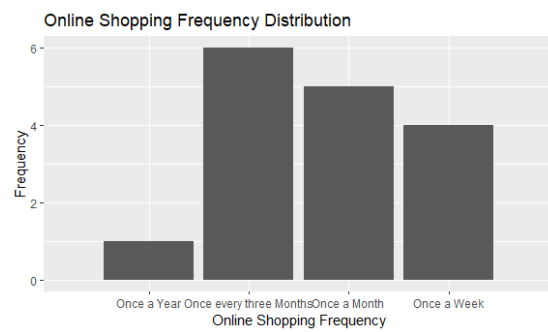


Figure 7: Online Shopping Frequency Distribution

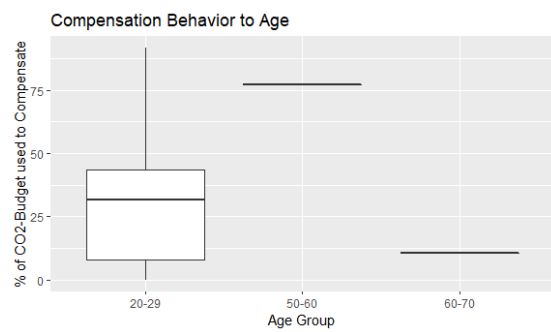


Figure 11: Compensation Behavior to Age

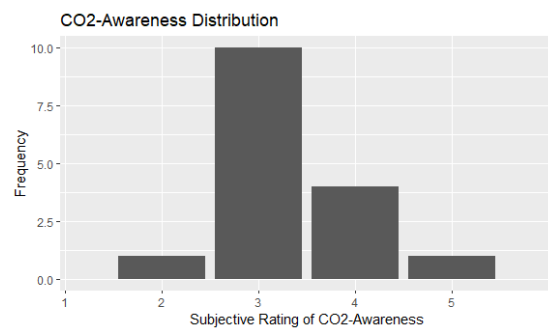


Figure 8: CO2-Awareness Distribution

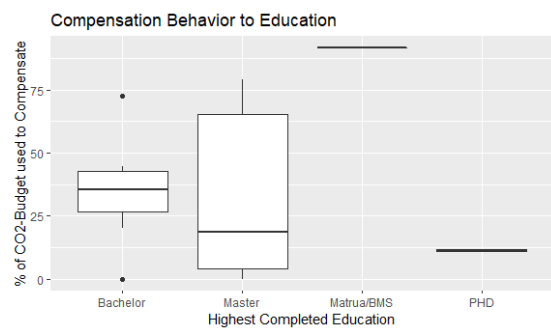


Figure 12: Compensation Behavior to Education

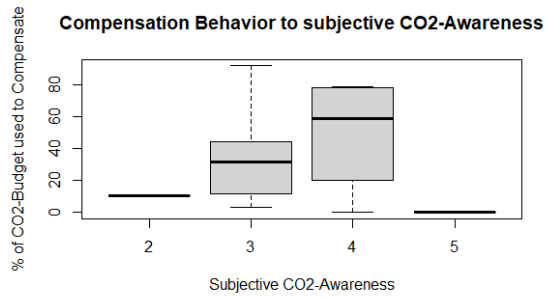


Figure 13: Compensation Behavior to Subjective CO2-Awareness

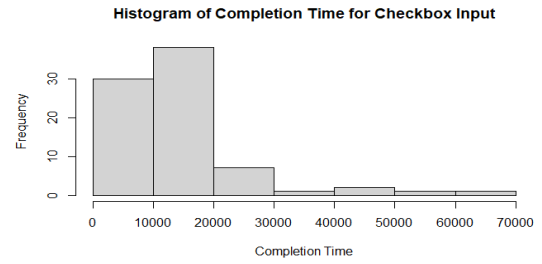


Figure 16: Histogram of Completion Time for Checkbox Input

Shapiro-Wilk test: $W=0.69147$, $p\text{-value}=1.121e-11$, thus the null hypothesis is rejected

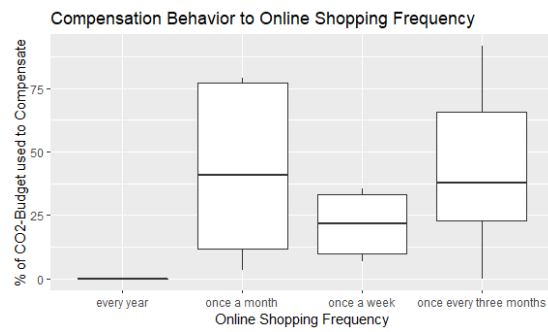


Figure 14: Compensation Behavior to Online Shopping Frequency

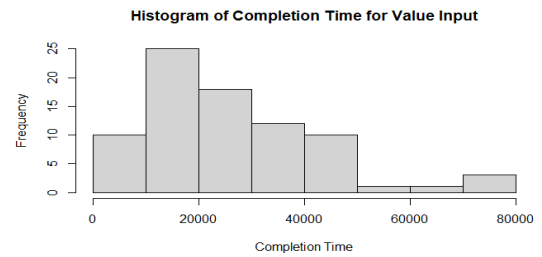


Figure 17: Histogram of Completion Time for Value Input

Shapiro-Wilk test: $W=0.90929$, $p\text{-value}=3.074e-05$, thus the null hypothesis is rejected

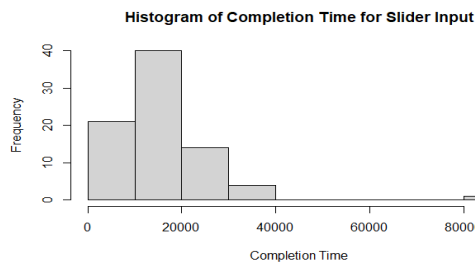


Figure 15: Histogram of Completion Time for Slider Input

Shapiro-Wilk test: $W=0.72759$, $p\text{-value}=6.972e-11$, thus the null hypothesis is rejected

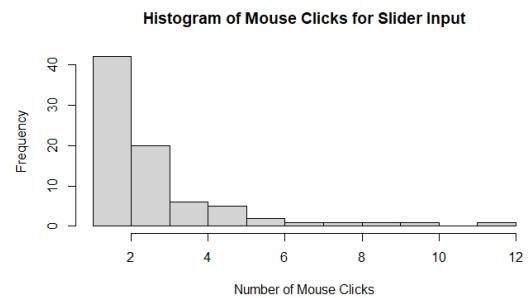


Figure 18: Histogram of Mouse Clicks for Slider Input

Shapiro-Wilk test: $W=0.72301$, $p\text{-value}=5.484e-11$, thus the null hypothesis is rejected

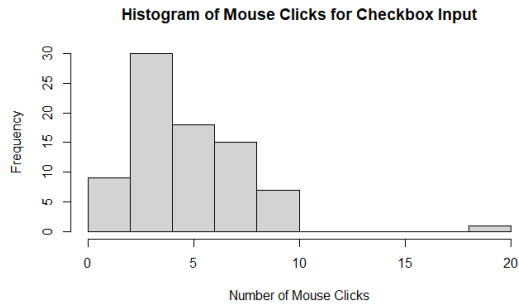


Figure 19: Histogram of Mouse Clicks for Checkbox Input
Shapiro-Wilk test: $W=0.86111$, $p\text{-value}=3.896e-07$, thus the null hypothesis is rejected

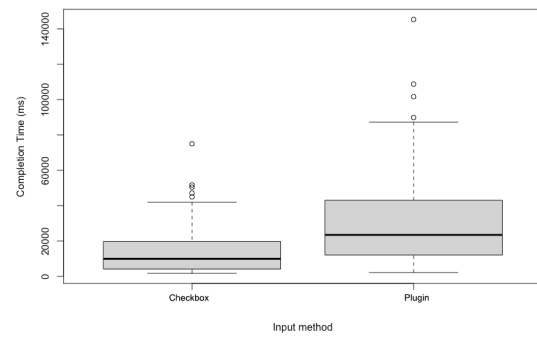


Figure 22: Box Plot of Completion Time for Checkbox vs Plugin

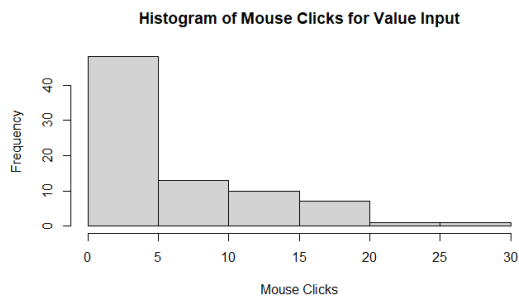


Figure 20: Histogram of Mouse Clicks for Value Input
Shapiro-Wilk test: $W=0.82296$, $p\text{-value}=2.222e-08$, thus the null hypothesis is rejected

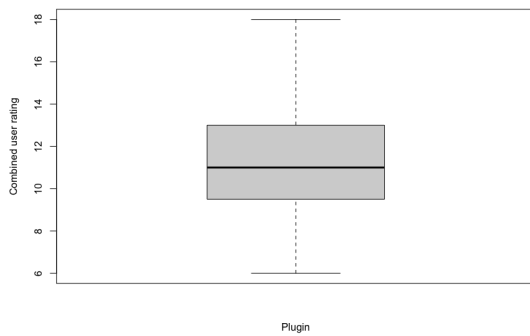


Figure 21: Box Plot of Combined User Rating for Plugin