Study 4 - Session 2 (for 1A 1B in S1)

Survey Flow

Block: Instructions Everyone (4 Questions)

BlockRandomizer: 1 - Evenly Present Elements

Branch: New Branch

If

If Welcome Back to Part 2   You had to have completed Part 1 to continue to Part 2.  Is Displayed

EmbeddedData

group = 2A

Block: Group 2A (3 Questions)

EmbeddedData

theorderValue will be set from Panel or URL.

Branch: New Branch

If

If Welcome Back to Part 2   You had to have completed Part 1 to continue to Part 2.  Is Displayed

EmbeddedData

group = 2B

Block: Group 2B (3 Questions)

EmbeddedData

theorderValue will be set from Panel or URL.

Standard: Graph Literacy Scale (5 Questions)

Standard: Demographics (7 Questions)

WebService: GET - http://reporting.qualtrics.com/projects/randomNumGen.php - Fire and Forget

Standard: Debrief and goodbye (4 Questions)

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Start of Block: Instructions Everyone

instructions **Welcome to Part 2 of Looking at Graphs**   You are only eligible to complete and be paid for this study if you completed Part 1 yesterday.

workerID **Enter your workerID below**  
*It is important to enter your workerID accurately so we can link your responses to yesterday's.*

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instructions **Instructions** Today's task is similar to the one you completed yesterday. You will now see a series of graphs and will be asked about the information presented.   
  
Don't spend too long on any question. It is okay if some of the topics are unfamiliar to you. Look at the graphs as you would if you encountered them in a newspaper or magazine article.  
   
We ask that you stay within the survey window for the duration of the study for the integrity of our research.

timing\_instructions Timing

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End of Block: Instructions Everyone

Start of Block: Group 2A

2A Look at the following graph:

|  |
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rating\_2A Compare the ${lm://Field/2} **${lm://Field/3}** and **${lm://Field/4}**. How different are they?

* 1 not at all different
* 2
* 3
* 4 moderately different
* 5
* 6
* 7 extremely different

timing\_2A Timing

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End of Block: Group 2A

Start of Block: Group 2B

2B Look at the following graph:

|  |
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rating\_2B Compare the ${lm://Field/2} **${lm://Field/3}** and **${lm://Field/4}**. How different are they?

* 1 not at all different
* 2
* 3
* 4 moderately different
* 5
* 6
* 7 extremely different

timing\_2B Timing

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End of Block: Group 2B

Start of Block: Graph Literacy Scale

\* **Nice job!**   
    
The study is almost complete. Now, you will answer a few questions about your experience with graphs, the survey experience, and yourself.  
  
  
  
Your responses to these questions will help us interpret our data set. Remember that all information you provide is confidential and your name will not appear on this document. Answering these question is voluntary and you can choose to skip any or all of them.

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graphicacy\_1   
  
Read and answer the questions below. If you are unfamiliar with a particular graph, select **1**= not at all good.

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| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| How good are you at working with bar charts? |  |  |  |  |  |  |
| How good are you at working with line plots? |  |  |  |  |  |  |
| How good are you at working with pies? |  |  |  |  |  |  |
| How good are you at inferring the size of a bar in a bar chart? |  |  |  |  |  |  |
| How good are you at determining the difference between 2 bars in a bar chart? |  |  |  |  |  |  |
| How good are you at projecting a future trend from a line chart? |  |  |  |  |  |  |

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graphicacy\_7 Read and answer the questions below.

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| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| Are graphs easier to understand than numbers? |  |  |  |  |  |  |

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graphicacy\_8 Read and answer the questions below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| How often do you find graphical information to be useful? |  |  |  |  |  |  |

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graphicacy\_9 Read and answer the questions below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| To what extent do you believe in the saying ‘‘a picture is worth one thousand words"? |  |  |  |  |  |  |
| When reading books or newspapers, how helpful do you find graphs that are part of a story? |  |  |  |  |  |  |

End of Block: Graph Literacy Scale

Start of Block: Demographics

\* Questions About You

dem\_browser Browser Meta Info

Browser

Version

Operating System

Screen Resolution

Flash Version

Java Support

User Agent

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dem\_age My current age is:

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dem\_gender I identify my gender as:

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dem\_ed Please indicate the highest level of education you have attained

* Some high school
* Graduated high school (or G.E.D.)
* Some college
* Currently in college (please indicate year) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Associate's degree
* Bachelor's degree
* Completion of some graduate school courses
* Graduate degree (indicate degree below) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

dem\_language First Language:

* English
* Other (please write): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

dem\_language\_string (optional) If other than English, number of years you have spoken English:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End of Block: Demographics

Start of Block: Debrief and goodbye

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**Experimental Debrief**   
    
 What was happening during the experiment? During this study, you saw different types of graphs. Some of the graphs represented information in a way that was designed to be misleading. We used tactics that are seen in the media regularly. For example, one technique is to change the vertical axis (y-axis) to make a small difference seem larger:  ​​      In this study, some of the graphs were manipulated in this way.  
   **What are we trying to learn in this research?** We are interested in how people are persuaded and how people change their beliefs. We would like to go how graphs play a role in these processes, how misleading these deceptive graphs really are, and whether they are ways to combat deceptive graphs.   **Why is this research important?** You may have heard the terms “post-truth” or “fake news” being used more frequently in the media. Knowing more about what contributes to persuasion and belief change is important to understanding how false beliefs and misinformation propagate and stick around. It is also relevant to efforts to change people’s minds about issues that have concrete consequences, such as rates of vaccination in children and environmental issues.   
 **What are our predictions?** We predict that evidence involving visual representations, such as graphs, will be more persuasive than text or statistical evidence alone.   
   **What if I have questions later?** If you have questions, you can contact Brenda Yang at 919-660-5797 or brenda.yang@duke.edu.

timing\_debrief Timing

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db\_misleading\_percen Give an estimate the percentage of graphs that were misleading, as described in the experimental debrief.    
    
Give your best guess. We expect that it is difficult to know this exactly.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

|  |  |
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| % of misleading graphs you saw |  |

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Thank you for participating in our study!   
  
 **To finish this HIT**   
Please put the following unique code into your MTurk survey:  
   
**1${e://Field/mTurkCode}**  
   
 **Comments?**  
 If you have any comments or thoughts on your experience, we welcome them in the "Comments" section on the MTurk form. If you are curious about what we are studying in this experiment, please contact marshlab@duke.edu. Have a nice day!

End of Block: Debrief and goodbye