

Consent and Demographics

This study will ask you several questions about a new visualization technique - Parallel Coordinates Plots.



Watch the following video for an overview of the study.

overview-movie
alark joshi

03:03

Data Collection

We also collect information regarding your background (such as age bracket, level of education, and experience with scatterplot matrices) at the start of this study. We will then ask you to perform a series of visualization tasks, and will be recording your responses and the time it takes to complete each task. We will not collect any uniquely-identifying information and your responses will be anonymous.

Participation

To be eligible to participate in this study, you must meet the following requirements:

- You must be 18 or older.
- You must have a modern browser capable of running JavaScript and displaying a 700 by 700 pixel image without scrolling.
- You must not have any form of color blindness.

Please confirm your consent to participate below:

By typing your participant ID in the text box below, please confirm your eligibility and consent to participate in this study.

The study will begin after you click the "Next" button.

What is your age?



How would you describe yourself? (Male/Female/Other)



Please indicate your highest level of education

- No Degree
- High School Degree or GED
- 2-Year College

- 4-Year College
- Graduate Degree

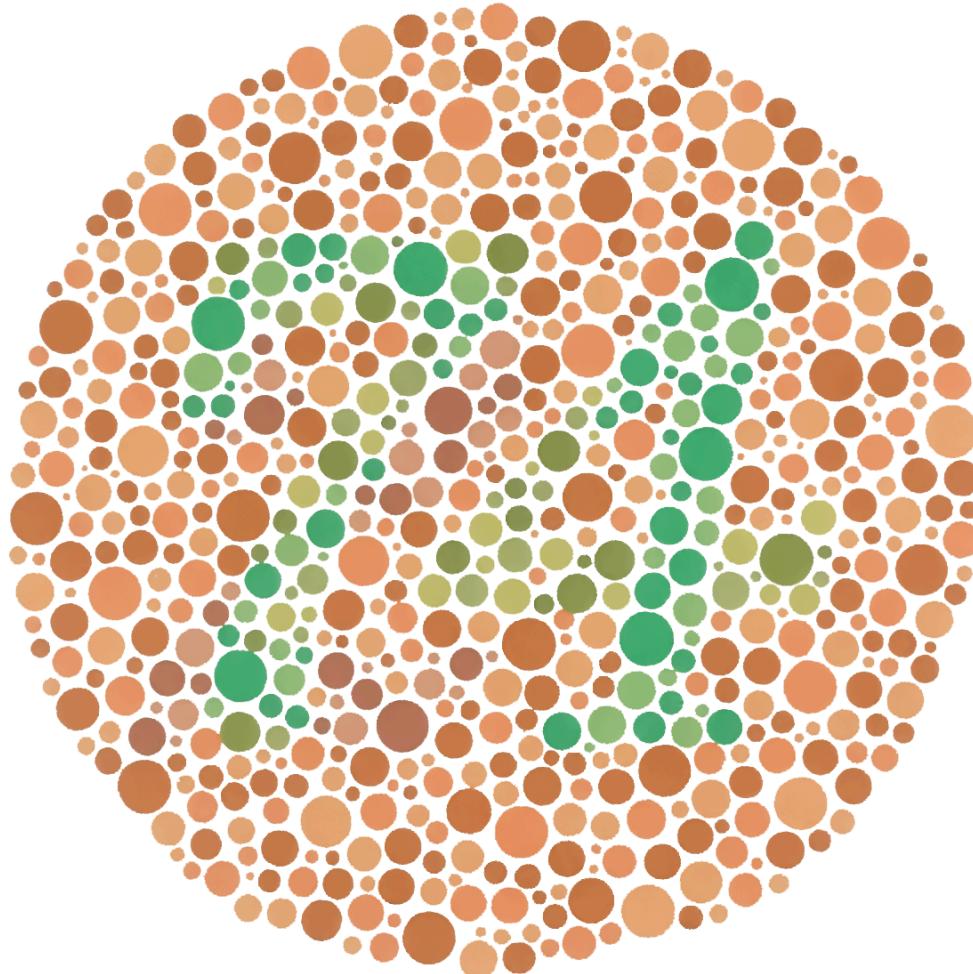
Do you have a background in data visualization?

- Yes
- Maybe
- No

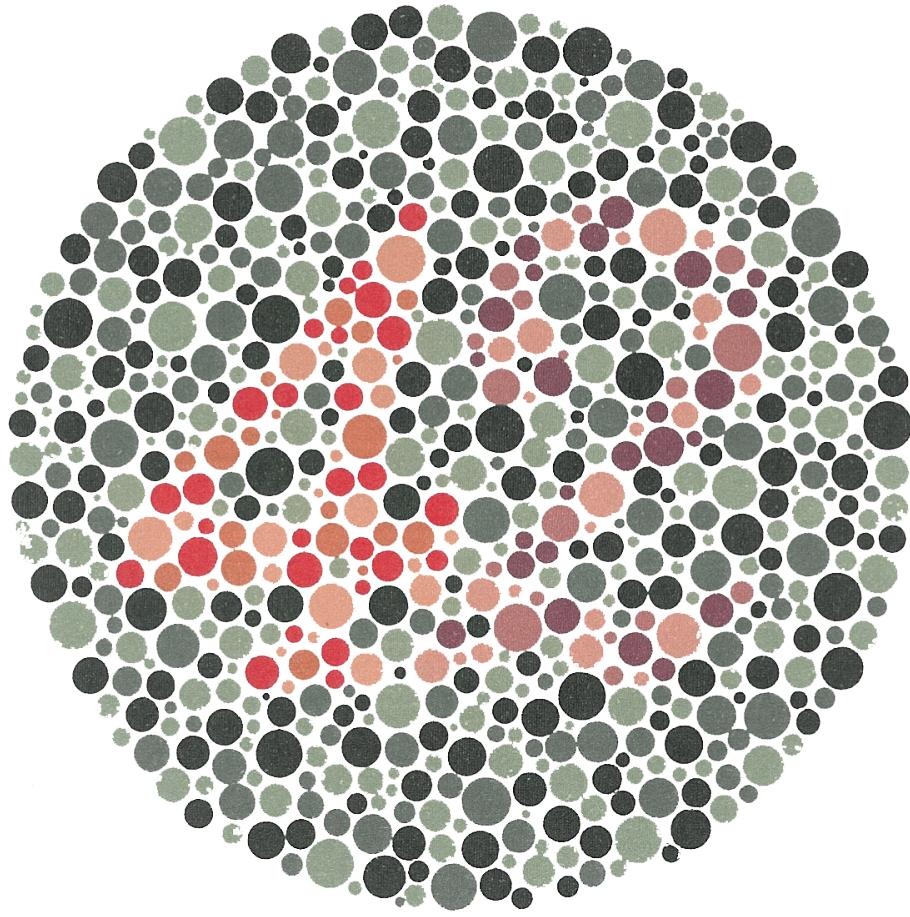
Have you seen a parallel coordinates chart before?

- Yes
- No
- Unsure

Please select the number you see in the following figure.

21
24
71
74
121

Please select the number you see in the following figure.



49	22	27	42	47
<input type="radio"/>				

How confident are you in recognizing Parallel Coordinates charts?

1 (Not confident at all)	2	3	4 (Fairly Confident)	5	6	7 (Completely confident)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Intro + Remember / Module 1

This is the survey for our visualization literacy project, which focuses on parallel coordinate charts. There are six learning modules, aligning with the steps outlined

in Bloom's taxonomy.



Module 1: Remember



Complete this [survey](#). Input the code that appears at the end of the survey to proceed to the next module.

Understand / Module 2

Module 2: Understand



Complete this [survey](#). Input the code that appears at the end of the survey to proceed to the next module.

Modules 3, 4, 5, and 6

Module 3: Apply



In this task, you are given excerpts from two datasets and are requested to generate a parallel coordinates plot for each of them. This task requires you to apply your knowledge of parallel coordinates plots to represent all the data in the provided dataset. Please use pen and paper or the provided Google slide to draw the chart. Remember to **add all the important features** in the parallel coordinates plot. You can ask for help / assistance during the drawing of the parallel coordinates plot. Make some observations about the data based on the generated parallel coordinates chart.

Upload your completed chart to this [survey](#) and enter the code found at the end of the survey below.

Module 4: Analyze



Complete this [survey](#). Input the code that appears at the end of the survey to proceed to the next module.

Module 5: Evaluate



Complete this [survey](#). Input the code that appears at the end of the survey to proceed to the next module.

Module 6: Create



Please complete the module via this [survey](#) and enter the code found at the end of the form below.

Survey reflection Qs



Which of the modules did you find the easiest? Select one and explain why you found that module the easiest.

Module 1: Recognition (recognizing what is and isn't a parallel coordinates chart)

Module 2: Understand (learning about the various components of the parallel coordinates chart)

Module 3: Apply (drawing the charts using pen and paper / Google Slides)

Module 4: Analyze (examining charts to learn something about the data)

Module 5: Evaluate/Critique (finding faults in existing charts)

Module 6: Create (using rawgraphs and the other tool)

Which of the modules did you find the most difficult? Pick one and explain why you found that module the most difficult.

Module 1: Recognition (recognizing what is and isn't a parallel coordinates chart)

Module 2: Understand (learning about the various components of the parallel coordinates chart)

Module 3: Apply (drawing the charts using pen and paper / Google Slides)

Module 4: Analyze (examining charts to learn something about the data)

Module 5: Evaluate/Critique (finding faults in existing charts)

Module 6: Create (using rawgraphs and the other tool)



A large, empty rectangular box with a thin black border, intended for respondents to write notes or draw parallel coordinates charts.

At the end of the survey, you learned a lot about Parallel Coordinates plots. Please rate this statement on a scale of 1-5.

1 (strongly disagree)	2 (somewhat disagree)	3 (neutral / no opinion)	4 (somewhat agree)	5 (strongly agree)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How confident are you in **recognizing** Parallel Coordinates charts?

1 (Not confident at all)	2	3	4 (Fairly confident)	5	6	7 (Completely Confident)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How confident are you in **interpreting/analyzing** Parallel Coordinates charts?

1 (Not confident at all)	2	3	4 (Fairly confident)	5	6	7 (Completely Confident)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How confident are you in **creating** Parallel Coordinates charts?

1 (Not confident at all)	2	3	4 (Fairly confident)	5	6	7 (Completely Confident)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How likely are you to use Parallel Coordinates in the future for data exploration or data explanation?

1 (Not likely at all)

2

3

4 (Fairly likely)

5

7 (Extremely likely)

How much effort did you put into answering the survey questions?

1 (No effort at all)

2

3

4 (A fair amount of effort)

5

7 (A lot of effort)

What improvements would you suggest for the survey / project?