

Participant Workshop Resource Document

Broaden Science Participation: Unpack “Analyze & Interpret” to Teach Data As an Equalizer - October 19, 2022 @ 8:30 - 10:00am EDT

Contact Kristin:

kristin@dataspire.org

609-212-3351

<https://dataspire.org>

@kristinhunterthomson ([LinkedIn](#))

@dataspire.edu.eval ([Facebook](#))

@dataspirededucators ([Facebook Group](#))

@ru_dataspire ([Twitter](#))

[Sign up to join the mailing list](#)

Looking for more?

- [Data Literacy Series workshops](#) - online, synchronous workshops around student common data misconceptions
- [Sign up to join the mailing list](#) of upcoming workshop and curriculum opportunities

***The slides, content, and all materials shared during this workshop are licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](#).*

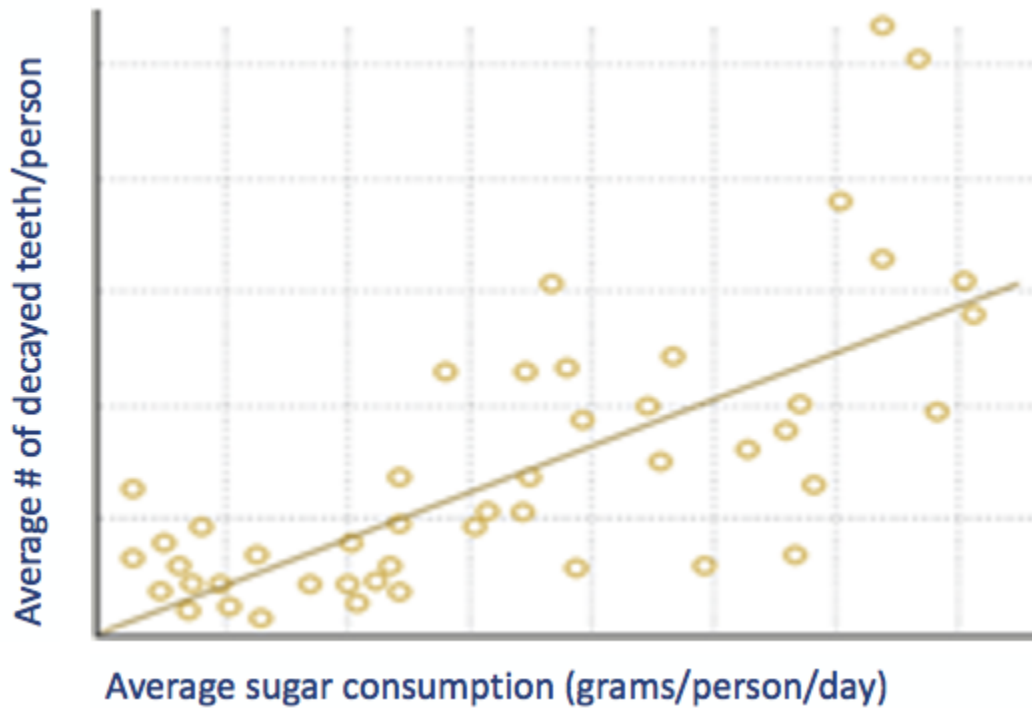
All are encouraged to:

- Participate fully, openly, and inclusively for yourself and others
- Listen to understand
- WAIT – Why am I talking; Why aren't I talking
- Lean into your learning edge, it's OK to be raggedy
- Acknowledge and respect differences and similarities
- Speak from personal experience – use “I” statements
- Take risks, ask questions, be courageous
- Have some fun with this

Workshop Resources

Get Together: norm set what data literacy is

1. *What's going on in these data? (think to self)*



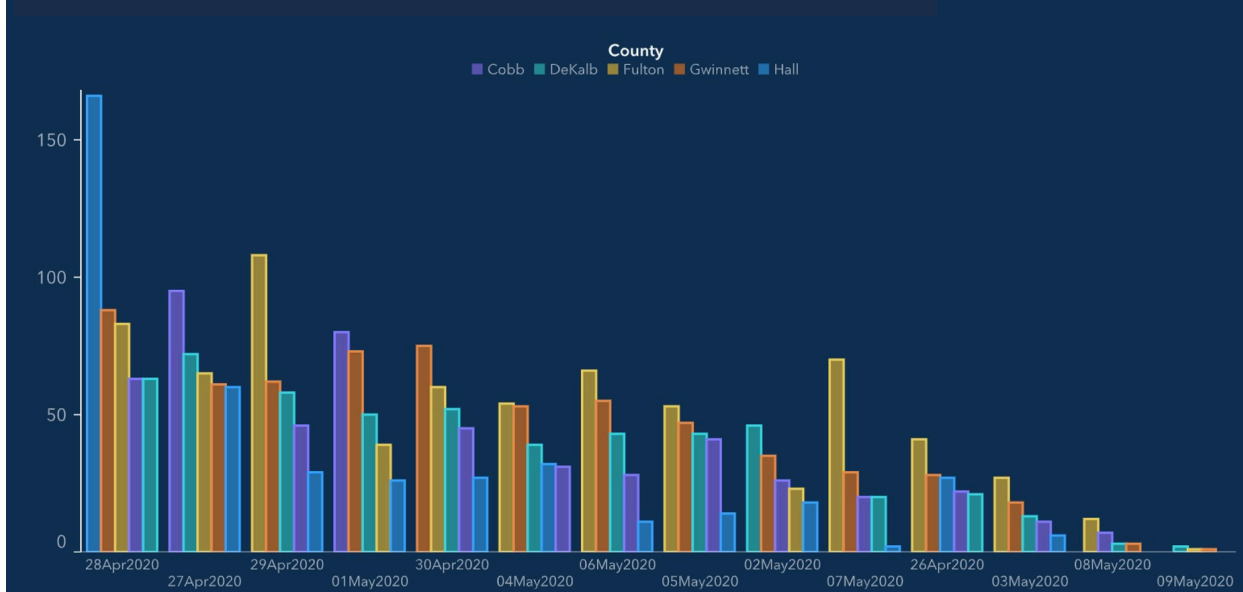
Source: <http://www.pewinternet.org/2015/09/10/what-the-public-knows-and-does-not-know-about-science/>

2. *Turn & Talk:*
 - a. What do you notice?
 - b. What do you wonder?

Top 5 Counties with the Greatest Number of Confirmed COVID-19 Cases

May 10, 2020

The chart below represents the most impacted counties over the past 15 days and the number of cases over time.



Source:

<https://www.businessinsider.in/science/news/a-cuckoo-graph-with-no-sense-of-time-or-place-shows-how-georgia-bungled-coronavirus-data-as-it-reopens/articleshow/75796015.cms>

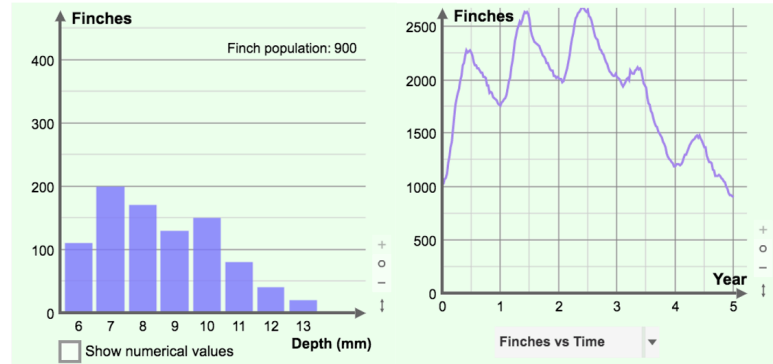
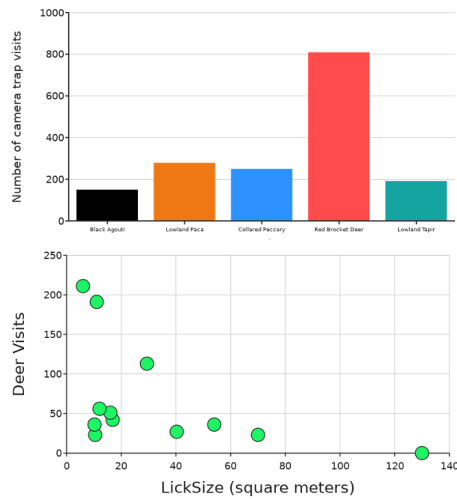
3. Think-Pair-Share: Checking-in

- What is something that surprised you from talking through these data examples?
- What implications does/could these data examples have for teaching with data in your school/district/organization?

Explore the Pieces: strategies & challenges

4. Turn & Talk (Part A):

- What patterns do you see?
- What patterns may your learners/audience see?

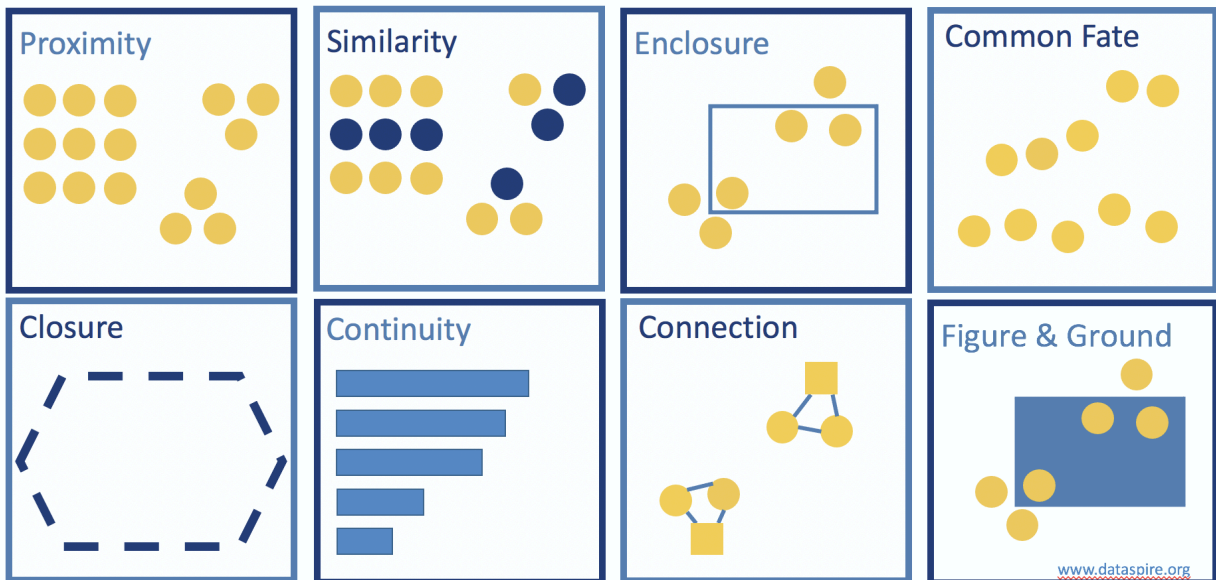


Sources: DataClassroom: Snapshot of Biodiversity Part 2: Camera trap data from the Peruvian Amazon
Gizmos: Rainfall and Bird Beaks

5. Turn & Talk (Part B):

- What Gestalt Principles are at play?
- What could help more?

Gestalt's Principles of Visual Perception



Infer How: align purpose with practice & next steps -

- Individual Reflections:* Add your responses to each on the Flipcharts

- a. What is something that we have discussed that is resonating for you to take forward?
 - i. Using Gestalt Principle to assist student in seeing pattern in data (6-8)
 - ii. Use of more visuals for my student, and visual hypotheses
 - iii. Visual hypothesis
- b. What implications does/could this have for teaching with data in your school/district?
 - i. A new view will help me (and my CT) teach to the way we perceive graphs
 - ii. Graphs
- c. What is a next step you may take from this?
 - i. To learn how to better put “training wheels” on the graph we do in class!

**** Join our private Facebook Group:**

<https://www.facebook.com/groups/dataspiirededucators> **

Other Resources to Share:

Other Opportunities

- Join in the Fall 2022 [Data Literacy Series](#) workshops (Sep 29th - Dec 1st)
- Grab your spot for a personalized FREE 30-minute “Next Step Strategy Call”:
<https://calendly.com/dataspire/chat>
- [Sign up to join the Dataspire mailing list](#) of upcoming workshop and curriculum opportunities

Other Data Literacy Resources

- Book ideas re: various data literacy, science education, & pedagogy topics -
<https://dataspire.org/data-and-science-literacy-book-ideas>
- Check out more data teaching resources at: <https://dataspire.org/data-resources>
- NSTA's Science Scope Interdisciplinary Ideas “Data Literacy 101” articles:
<https://dataspire.org/data-literacy-101-articles>
- Suggestions for where to find data to use:
<https://dataspire.org/finding-authentic-and-relevant-data-to-use>
- <https://www.veryspecialgames.com/> - Order your own copy of Charty Party (or any other of the great games they make) with a **15% discount using code: DATASPIRE**

- NASA Data Literacy Badges for Teachers & Students -
<https://www.nasa.gov/audience/foreducators/best/badging.html>

Graphs & Graph Choice Resources

- Hunter-Thomson, K. 2019. [Data Literacy 101: Which is the Best Graph to Use?](#) Science Scope 42(5): 26-31.
- [Graph Type Matrix resources](#) - activity components and keys for ES, MS, HS, and Undergraduate levels

CER Resources

- Building CER Capability Framework:
<https://kristin-hunter-thomson.mykajabi.com/pl/2147575894>
- Hunter-Thomson (2020). [Data literacy 101: What can we actually claim from our data?](#) Science Scope. 43(6) 20-26
- Hunter-Thomson (2019). [Data literacy 101: How can we help get data into students' science explanations?](#) Science Scope. 42(8) 28-32