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2-21-2020

Everyone Loves Gummi Bears! Removing the Intimidation factor from Research Data Management with Yummy Fun.

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In Ourselves



UNIVERSITY LIBRARIES

Henderson Library and Lane Library

Everyone Loves Gummi Bears!

Removing the Intimidation Factor from Research
Data Management with Yummy Fun.

Dawn (Nikki) Cannon-Rech & Jeffrey M. Mortimore
Georgia International Conference on Information Literacy
Spring 2020

Agenda

- Making Data Bearable Workshop
 - Curriculum Design
 - ACRL Framework
- Hands On Activity!
 - Work in Small Groups
 - Assessment * Built in Plus
- Marketing Strategies
 - What worked for us
 - Your Thoughts
- Discussion & Final Questions



Developing the Workshop

The Idea

Efforts to Expand Liaison Instruction

- Working specifically with re-established McNair Scholars Program

Approached Discovery Services Librarian with a Request to create/run a Data Management Workshop for Undergraduates.



The McNair Scholars Program, officially known as the Ronald E. McNair Post-Baccalaureate Achievement Program, is a federal TRIO program funded at 151 institutions across the United States and Puerto Rico by the U.S. Department of Education. It is designed to prepare undergraduate students for doctoral studies through involvement in research and other scholarly activities.

Developing the Workshop

MAKING DATA "BEARABLE"



University Libraries
Georgia Southern University



Exploring challenges of, and best practices for, managing and sharing your research data.

Making Data "Bearable"

- What is research data?
- What is a dataset?
- Why is managing and sharing your research data important?
- How can you make your research data understandable and usable by others?
 - Research Simulation: Gummi Bear "Springiness" Study
 - Based on previously collected data, we will:*
 - Create a figure using PowerPoint.
 - Create a data chart using Excel.
 - Consider what to include in our dataset.
- Wrapping Up / More Info

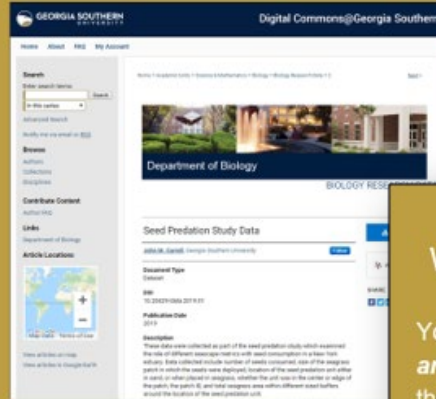
Research simulation adapted from Vasilevsky, N., Wirz, J., Champieux, R., Hannon, T., Laraway, B., Banerjee, K., ... & Haendel, M. (2014). *Lions, tigers, and gummi bears: Springing towards effective engagement with research data management*.

Developing the Workshop

What is a dataset?

Dataset = Data content and metadata that is prepared and packaged for reuse by others.

- May include raw, interpreted, or replication data.
- May be openly accessible online or require permission to access.
- Makes sharing your data possible.



<https://digitalcommons.georgiasouthern.edu/bio>

Why is this important?

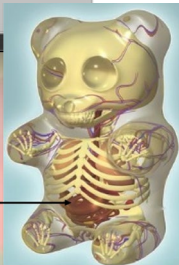
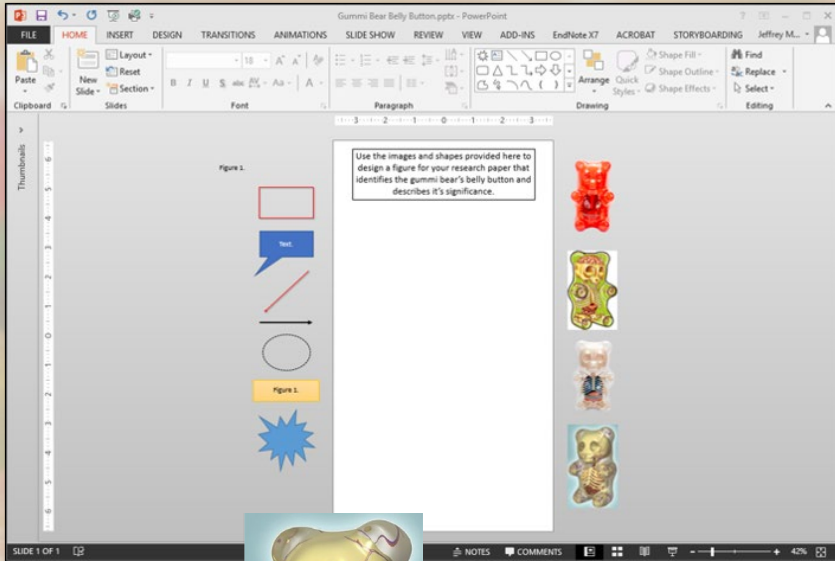
Your research data is valuable, to you **and** other researchers. What could the author of the article in *Science* have done differently to ensure that other researchers can use his data?

- Preserve the data with the publisher or in a publicly-accessible data archive.
- Preserve the data in a file format that can be accessed by others without special software.
- Preserve information about the data (e.g., data fields) in the article or a code book.



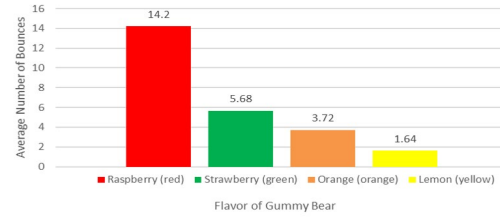
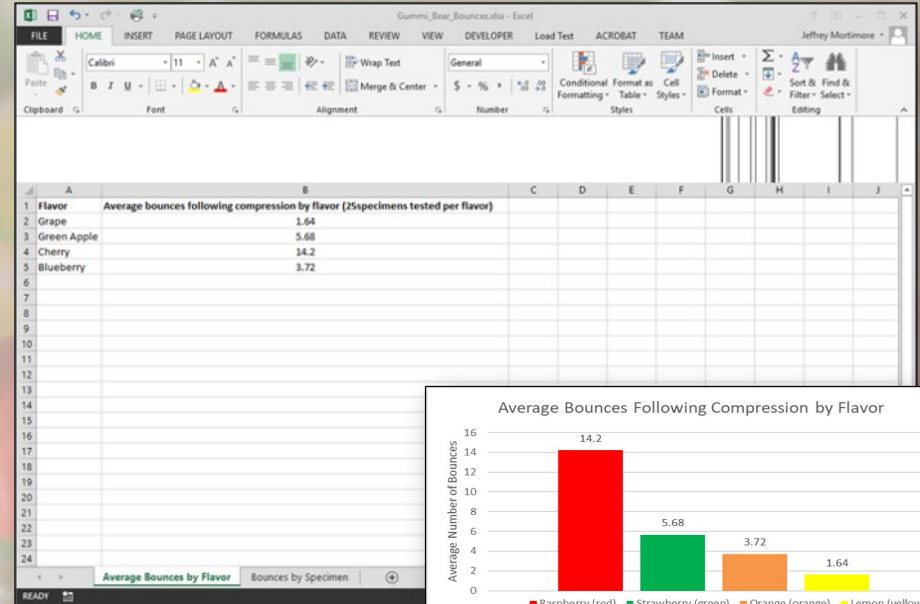
NYU Health Sciences Library. (2012). *Data Sharing and Management Shafiq in 3 Short Acts*. <https://youtu.be/V2K3AAt4>

Developing the Workshop



Belly Button

Figure 1. Gummy bear anatomy with arrow pointing to belly button.



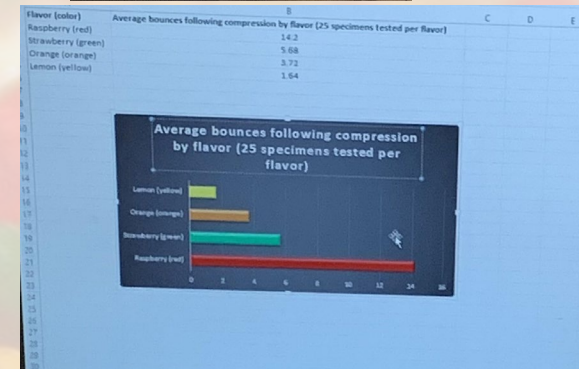
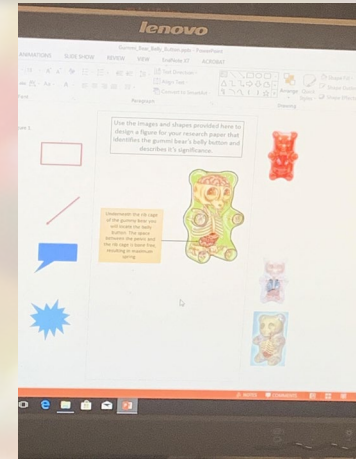
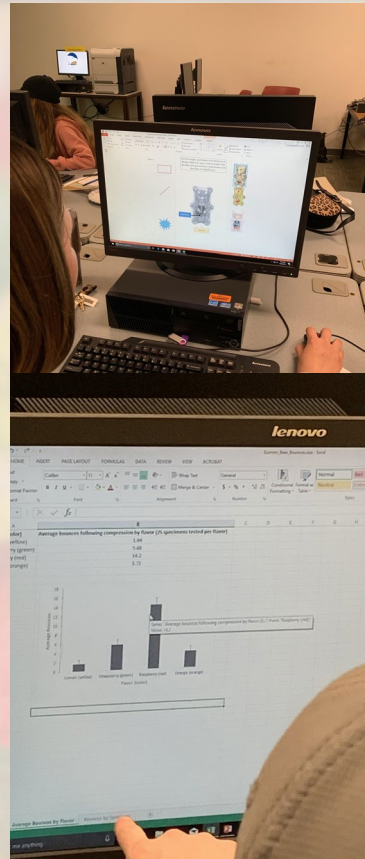
Developing the Workshop

Simulation Design

- Adapted from “data wrangling” sessions hosted by the Oregon Health & Science University Library for first-year medical students.*
- Designed to be data and domain neutral, and require only basic skills with Microsoft PowerPoint and Excel.
- Embedded in prior analysis of authentic research data products and data sharing scenarios.

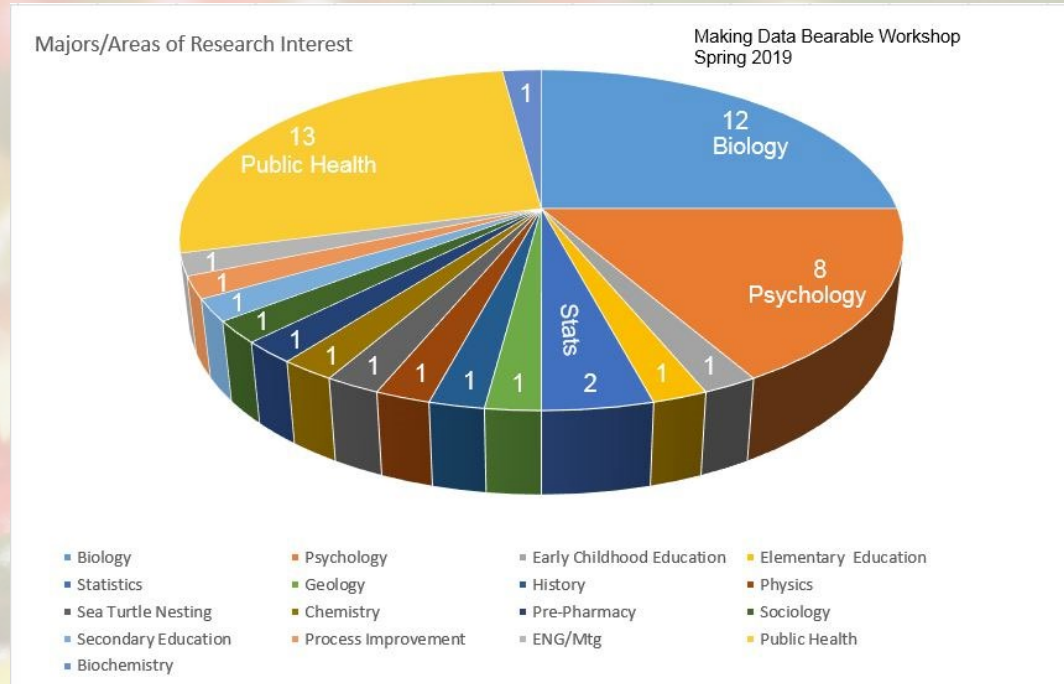
ACRL Framework: Information Creation as Process

- “Develop, in their own creation processes, an understanding that their choices impact the purposes for which the information product will be used and the message it conveys.”
 - Students Choose Which Gummi Bear Model, How to Lay Out Their Graph, Colors, Labeling, etc.
 - Discussions about their choices occur during process



ACRL Framework: Scholarship as Conversation

- “See themselves as contributors to scholarship rather than only consumers of it.”
 - Participants asked about their research interests
 - Many understanding Data Management as part of conversation for first time.



Hands On Fun!

Work in Small Groups (35 minutes)

Digital (Laptops)

Jeffrey Mortimore

Files on Flash Drive

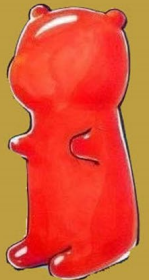
Physical (Handouts)

Nikki Rech

Materials in Manilla Folder

Research Simulation: Gummi Bear “Springiness” Study

- You and your colleagues are investigating the correlation between gummi bear flavor and “springiness.” For this study, springiness is defined as the number of times a gummi bear bounces after being compressed.
- You have developed an instrument, called a “Springometer,” which allows you to accurately compress gummi bears of different flavors and count the number of times they bounce when released.
- In the course of your research, you have determined that gummi bear “springiness” centers around the bear’s belly button.
- You have collected your data and are now ready to prepare your research paper.



Assessment

- Built in Assessment
 - Working in Groups, students will use PowerPoint/Provided Handouts to create a figure representing a specific feature of their data set (provided).
 - Working in Groups, students will use Excel/Graph Paper to create a chart/graph representing a specific feature of their data set (provided)



Assessment

- Additional Brief Writing Assessment
 - What did you Learn?
 - How will you apply what you learned?

MAKING DATA BEARABLE

Name: _____ Date: _____
Program: _____
Area of Research Interest: _____

Once Datasets are collected and organized, they can be displayed in a variety of ways, depending on the type of data, the purpose of its collection, and the intended audience.

Name Two things you Learned Today about Making Sure Data is available Long Term:

1. _____

2. _____

Name Two things you Learned Today about Naming Files & Folders for Data Preparation:

1. _____

2. _____

4. What is Metadata? Why is it necessary when preparing Data Sets?

5. How will you apply what you learned today in your ongoing research endeavors? *Be Specific

Marketing

- Tied into Endangered Data Week
 - LibGuide Created
 - Flyer Created
 - McNair Scholars Absolute
- Scheduled Additional Workshops
 - Direct & Targeted Marketing
 - Emails
 - Word of Mouth
 - In classes
 - To student groups
 - By student participants

MAKING DATA "BEARABLE"



Hands on Fun...

Monday, February 25 5:00 pm (FULL!)

Tuesday, February 26 5:30 pm

Wednesday, February 27 5:00 pm

Thursday, February 28 5:30 pm

*special dates for groups may be available by request.

See contact info below.

... with the happy world of gummy bears!

Limit 20 persons per event.

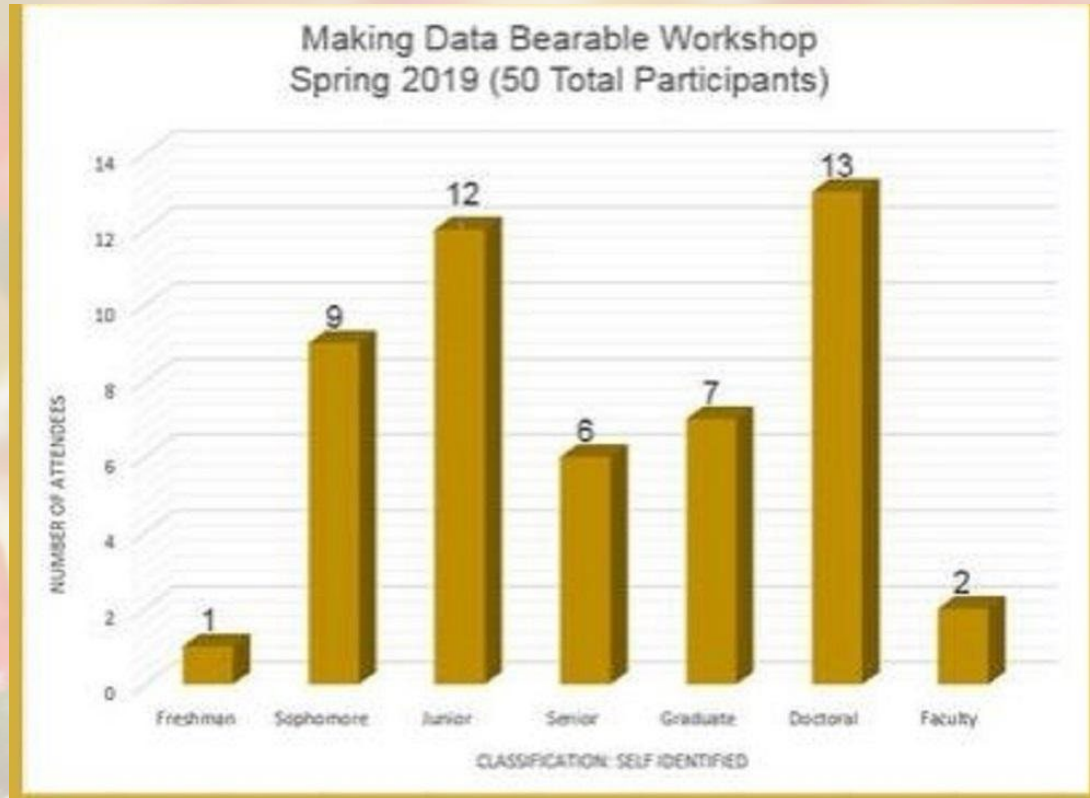
To sign up contact Nikki Rech: dcannonrech@georgiasouthern.edu

Library Room 1308

*Attendance Verification Provided

Results of Marketing

- 50 Total Participants
 - Mix of Undergrad and Graduate
 - Mix of Majors



Moving Forward

Making Data Bearable Session 2

Targeting Specific Classes



Tree							
A	B	C			F	G	H
Tree	Species	Host_Nonhost	Height	DBH	Densimeter_light	Temperature	Water_Availability
A1	Quercus_nigra	N	9	21.4	37.75	12.1	1
A2	Quercus_nigra	N	10.4	32.1	39.5	15.7	1
A3	Quercus_nigra	N	11.5	22.5	30.5	14.1	2
A4	Quercus_nigra	N	11.4	32.3	45.25	13.6	1.5
A5	Quercus_nigra	H	12	31.4	31.25	14.2	1.5
A6	Quercus_nigra	N	16.5	39.4	48	13.6	1
A7	Quercus_nigra	H	14.75	34	72	17.2	1
A8	Quercus_nigra	H	11	33.9	36.75	13.2	4
A9	Quercus_nigra	H	11.5	31	66.25	13	3
A10	Quercus_nigra	H	12	40.8	69	15.8	4
A11	Quercus_nigra	H	9.5	27	67.75	14.1	1
A12	Quercus_nigra	N	9.5	35.4	58.5	13.1	2
A13	Quercus_nigra	N	11.5	25.4	61	12	3
A14	Quercus_nigra	N	9.75	24	55	11.1	4

Questions, Comments, Observations?

Making Data Bearable Workshop Materials:

<https://digitalcommons.georgiasouthern.edu/lib-promo-dms-instr/8/>

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