

Data Help Desk: Informing Science Data Help Desk Staffing through Transaction Analysis

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Purpose

The purpose of this project was to directly observe and assess the question transactions at the Data Help Desk at Ecological Society of America and American Geophysical Union meetings to inform future research data management trainings and staffing of data information services.

Photo of Data Help Desk at AGU 2018. From @WadeBishopUTK on Twitter.



Methods

When attendees asked Data Help Desk staff with more substantive questions than “can I take a sticker”, they were approached following their interaction and read the recruitment statement and informed consent language. The standard informed consent language states there is no penalty for not participating in the project and the majority of those recruited did participate in the survey about their experience. The survey questions ultimately used were informed by ESIP and Data Help Desk staffers to evaluate this information service. The survey results are presented in the following tables.

Survey Questions:

1. What was your question for the Data Help Desk?
2. What is your highest level of education? PhD; Master’s; Bachelor’s
- 3.What is your current job title?
4. In your job, what are your top three research data management needs?
5. If you have received training, what types of data research management training did you receive?
6. If you have not received training, what types of data research management training would you be most interested in?
7. What delivery formats for training do you prefer (e.g., half day workshop, webinar, graduate coursework)?
8. What was your level of satisfaction with your service at the Data Help Desk? (Likert scale of satisfaction used)

Topic	ESA	AGU	Combined
Organizations	10	7	17
Data Management	9	0	9
Sharing data	6	4	10
Data storage	6	5	11
Data analysis	4	1	5
Finding data	3	5	8
Other	3	9	12
Accessing data	2	4	6
Software	0	3	3
Total	43	38	81
Examples of other questions	General info; Can I help out by hosting a data workshop	What are you doing here; What are data?; How to get involved	

Table 1: Topics of questions asked at the Data Help Desk

Title	ESA	AGU	Combined
Student	12	15	27
Research scientist	11	11	22
Postdoc	6	0	6
Professor	6	4	10
Other	5	7	12
Total	40	37	77

Table 2: Positions and roles of participants

Answer	ESA	AGU	Combined
Extremely satisfied	37	32	69
Somewhat satisfied	2	4	6
Neither satisfied nor dissatisfied	1	0	1
Somewhat dissatisfied	1	1	2
Extremely dissatisfied	0	0	0
Total	41	37	78

Table 3: Participant satisfaction with help received at Data Help Desk



Photos showing AGU sessions and workshops held as part of the Data Fair along with the Data Help Desk at AGU 2018. From @esipfed on Twitter.

ESA					AGU				
Category	#1	#2	#3	Weighted	Category	#1	#2	#3	Weighted
Data storage	8	10	4	16.0	Data storage	11	2	0	12.3
How to do data management	7	5	4	11.7	Data accessibility	5	6	0	9.0
Data access	6	2	1	7.7	Interoperability (readability, standardization)	2	3	4	5.3
Data sharing	5	1	2	6.3	Sharing data	1	5	3	5.3
How to do data analysis	2	3	5	5.7	Data organization	0	1	1	1.0
Reproducibility	0	3	1	2.3	Finding data	3	0	0	3.0
Cleaning data	2	0	0	2.0	Metadata	1	2	1	2.7
Metadata	0	2	1	1.7	Databases	1	0	1	1.3
Resources	1	1	2	2.3	Collecting data	1	0	0	1.0
Quality control	1	0	0	1.0	Data processing	0	1	0	0.7
Visualization	0	0	1	0.3	Data availability	0	1	0	0.7
Privacy	0	0	1	0.3	Visualization	0	0	1	0.3
					Restricted data	0	0	1	0.3
Total	32	27	22		Total	25	21	12	
Others	4	4	5		Others	6	7	2	

Table 4: Top 3 data management needs listed by survey participants

Topic	ESA	AGU	Combined
Data archiving	4	5	9
Data management	6	2	8
Database management	0	5	5
DataONE	4	0	4
Unsure	0	4	4
Data analysis	3	0	3
Databases	3	0	3
Sharing data	1	2	3
Data organization	0	3	3
Documentation/nomenclature	0	3	3
Total	26	31	57

Table 5: Topics requested for future data management trainings



Next Steps

There are several steps that could be taken by ESIP and affiliated organizations to prepare for future data help outreach:

- Train volunteers ahead of time by holding orientation webinars to make sure everyone is on the same page going in
- These trainings should include the basic info on ESIP and data management that participants were asking for. Awareness is increasing in science, but many scientists still do not have a basic understanding of what data management is and why it is important.
- Volunteers at the booth should also receive information on being approachable, showing interest in the questions asked, listening and clarifying to determine the true question being asked, and follow-up (making sure the question-asker leaves or receives contact info for follow-up or further questions)
- Post the schedule of experts and demos online where it can be easily accessed outside the booth
- Potentially implement a year-round Data Help Desk, and let scientists know which experts they can contact for help with data management needs after AGU, ESA, or other conferences



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