Pedagogy of the Data Reference Interview

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“Yi yi.”
“Yi yi.”

Meanings:

- Sunglasses
- Farms
- Tractors
- Any outbuilding
- My jewelry box
- Beaded necklaces
Why the Data Reference Interview?
Why the Data Reference Interview?

- Does our model of practice match our goal?
- Serving undergraduates and the tension between instruction and service.
- Implications for allocation of resources.
- Site of collaboration between data specialists and general and subject specialist reference librarians.
Pedagogical Reference

• “It is the role of the teacher to identify where the student is in his or her development ... and then provide guidance and collaboration in ways the student can internalize” (p. 462).

• “...if we accept the central notion that knowledge and meaning get negotiated in social contexts among members of a discourse community, then our responsibility within that community is to participate in discourse, to engage our students with meaningful talk about their research, to help them develop a language of inquiry that will allow them to articulate to themselves how to proceed with present and future research challenges” (p. 461).

Bopp & Smith’s Reference Interview

Open the Interview
  o Expressing openness and approachability
  o Establish that you want to help

Negotiate the question
  o Learn the context of the patron: how much detail at what level is needed
  o Use of open and closed questions and active listening

Search for information

Communicate the information to the user

Close the interview
  o Express willingness to provide further help
  o Refer if necessary
“It should be obvious that information given to users must be at an appropriate intellectual level and free of jargon from either the field of librarianship or from any other field with which the user is unfamiliar. Users will not always say that the material presented to them is unclear or too difficult for them to master, so librarians must assess the user’s abilities during the search process to avoid giving the user the right information in the wrong package.” p. 58
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Data Reference Interview (composite)

Establish what the patron needs:

- Statistics or data?
- What is the subject or topic?
- What is the unit of analysis?
- Geographic constraints or units?
- Time constraints (a range of years; monthly, quarterly or annually)?
- Do they need cross-sectional or longitudinal data? Time series?
- Opinion or demographic data? Financial or administrative data?
What would a data reference model look like that reflected more of a pedagogical emphasis?
“I need data on Hmong employment and educational attainment by state over time.”
“I need data on Hmong employment and educational attainment by state over time.”

Expectation
“I need data on Hmong employment and educational attainment by state over time.”

Expectation

Google

Reality

Syntax file + Raw data

Statistical Output
Undergraduates & Data

- Habits that have served them well may not in this context
- Just emerging as researchers
  - Process is vague
  - Never experienced data “in the wild”
  - Lack fluency in the language
- Different motivations than more experienced researchers

Photo by: phae, Creative Commons, Flickr
Some Strategies for the Interview

- Emphasis on process and articulating strategies
- Use of visualization
- Model good search behavior
  - Take notes
  - Talk through decisions
  - Approaches for dealing with uncertainty
- Provide note-taking strategies
- Contextualize data search in information literacy more broadly
Combine discovery & instruction
### Data Reference Worksheet

**Topic:**

- Given when available:
  - Unit of Analysis (e.g., individuals, households, companies, counties, states, nations):
  - Geography (e.g., all European countries):
  - Time Period (e.g., 1980-2006):
  - Frequency (e.g., annual, quarterly):

**Evidence:**

**Who is likely to collect data on this question? List as many as you can think of.**

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Government Agencies</th>
<th>NGOs, IGOs</th>
<th>Think Tanks &amp; Research Organizations</th>
</tr>
</thead>
</table>

**Names of censuses, surveys, studies to follow up on:**

**If you don’t know the answer to this question, you can use the following tools to discover sources of data.**

1. **IF** data are likely to be collected...
   - **Administratively**
     - **Then** try the following compendia, portals
   - **By Surveys**
     - **Then** try the following collections & archives

2. **What sources are mentioned in the literature?**
## Data Reference Worksheet

Track what you find in the literature as a way to discover data source and to place your research in context.

<table>
<thead>
<tr>
<th>Author / Date</th>
<th>Claim</th>
<th>Data</th>
<th>Dependant Variable / Estimation Technique</th>
<th>Significant Findings</th>
<th>Other</th>
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Combine discovery & instruction

Make a grid with the datasets you are comparing listed across the top. For each variable of interest, make a row. In this example, you would compare questions about marital status, race and religiosity across four datasets.

<table>
<thead>
<tr>
<th>Variable / Dataset</th>
<th>General Social Survey (GSS)</th>
<th>National Survey of Families and Households (NSFH)</th>
<th>Three Cities Study</th>
<th>National Longitudinal Survey of Youth (NLSY)</th>
<th>[add new dataset here]</th>
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</thead>
<tbody>
<tr>
<td>Marital status</td>
<td>[Enter survey questions here]</td>
<td>[Enter survey questions here]</td>
<td>[Enter survey questions here]</td>
<td>[Enter survey questions here]</td>
<td>[add new dataset here]</td>
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<td>Race</td>
<td>[Enter survey questions here]</td>
<td>[Enter survey questions here]</td>
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<td>Religiosity</td>
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<td>[Enter survey questions here]</td>
<td>[Enter survey questions here]</td>
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<td>[add new variable here]</td>
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Allocating Resources

• Extending data services – and the data reference interview -- outside of the data center

• Implications
  o Designing a campus-wide support model
  o Professional development and cross-training
  o Embedding data literacy in information literacy efforts
  o Finding-aid design and simultaneous discovery and instruction

• What *does* the Data Reference Interview look like at the general reference desk?
“It should be obvious that information given to users must be at an appropriate intellectual level and free of jargon from either the field of librarianship or from any other field with which the user is unfamiliar. Users will not always say that the material presented to them is unclear or too difficult for them to master, so librarians must assess the user’s abilities during the search process to avoid giving the user the right information in the wrong package.” p. 58
Questions. Questions?

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- 507.222.7668
Extras
Don’t give them what they ask for.

Q: “Where can I find literacy statistics?”

A: Started with Digest of Education Statistics, but actual question turned out to be far more complicated and she needed data on the deaf community in Texas.
When “data” means “a table from which I can draw a number”

Q: Data/statistics on urban minority women on various topics such as poverty, HIV/AIDS, gang participation/affiliation, education (graduation rates, enrollment), poverty/income, household family structure, teenage pregnancy, crime rates for particular neighborhoods in Chicago

A: We decided her best bet may be newspaper articles and moving on from there. She is not a big data person, so we didn't want to get her digging through multiple datasets. Ethnic Newswatch was really exciting, and we spent some time talking about ProQuest Newsstand and LexisNexis, too.
Undergraduates seeming lazy, but hobbled by limited strategies

Q: Chinese outward FDI to Latin America.
“I have no idea where to look for this.”

When I began trying to show him how he’ll have to go about digging through documentation and the literature, he said,
“Can’t I just find this using Google?”
More disconnects

Q: I’m supposed to find a data set, and I wanted to find one on pollution. Do you know of any books that would have that kind of thing?

Q: We need data -- anything for our regression -- well, maybe environmental.

Q: I’m writing a research proposal on political violence and whether there is a connection between that and political stability, but don’t know what kind of data to use.

Q: I’m starting my comps [capstone project] idea for Economics and I found this really great article. How do I get at the data it cites, and how do I find more articles like this?
3 Sites of Data Reference

• General reference desk
• Appointments with the social sciences librarian (me)
• Appointments with the data specialist (Paula)
When it pays to know the assignment

Q: I need data on labor market flexibility and economic performance for SMEs and LMEs.
  o What are SMEs and LMEs?
  o Economic performance definitely needs to be operationalized, but what about labor market flexibility?
Assignment: Each group will agree on the testing of one of the following hypotheses.

**Hypothesis 1:** The characteristics of LMEs [liberal market economies] generate a higher standard of living than those found in the SMEs [social market economies] over time.

**Hypothesis 2:** Labor market flexibility is a key factor in explaining the economic performance of the SMEs versus the LMEs.

**Hypothesis 3:** Globalization of investment has compelled the SMEs and the LMEs to pursue the same kinds of fiscal policies.

**Hypothesis 4:** Corporatist labor relations institutions have enabled the SMEs to avoid welfare state retrenchment more than the LMEs.

**Hypothesis 5 (the high-difficulty hypothesis):** Differences in electoral, partisan, or other formal political institutions explain the tendency of SMEs and LMEs to retrench the welfare state.