Preparing Medical Librarians to Understand and Teach Research Data Management

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NYU School of Medicine
Background
Grant Contributors

**PIs:** Kevin Read & Alisa Surkis

**Video creation:** Catherine Larson & Karen Yacobucci

**Instructional design:** So-Young Oh

**Data analysis:** Suvam Paul

**Evaluation and assessment:** Colleen Gillespie
Do you see a role for your library in teaching research data management?

N = 118
Do you currently teach research data management at your institution?

N = 118
Research Data Management @ NYUHSL

Experience providing:

Continuing education classes for medical librarians

Classes for researchers
Approach
Online Librarian Training

- Practice of research
- Story of data
- Fundamentals of RDM
- Cohort of biomedical librarians
- Varied teaching experience

Librarians Teaching Researchers

- Slides + script
- Evaluation methods
- "Edutainment" videos
- Observing librarians teach
- Follow-up interviews with librarians

Dissemination to Biomedical Library Community

- Knowledge gain & satisfaction
- Comfort level/Intent to teach
- Qualitative follow-up

Librarian Evaluation

- Knowledge gain
- Satisfaction
- Intent to practice

In-person Curriculum

- Web-based Curriculum
- Piloting
- Librarian Evaluation
- Researcher Evaluation
## RDM Best Practices

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Field type</th>
<th>Description</th>
<th>Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject_id</td>
<td>Text</td>
<td>Unique identifier for each subject</td>
<td></td>
</tr>
<tr>
<td>last_name</td>
<td>Text</td>
<td>Subject last name</td>
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</tr>
<tr>
<td>first_name</td>
<td>Text</td>
<td>Subject first name</td>
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<td>Date</td>
<td>Subject birth date</td>
<td></td>
</tr>
<tr>
<td>sex</td>
<td>Integer</td>
<td>Subject sex</td>
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## Understanding Research Context

- [DNA by pedro baños cancer](https://thenounproject.com/search/?q=genome&i=182407)
- [lab flasks by Carla Dias](https://thenounproject.com/search/?q=lab-animal&i=546042)
Online Librarian Training

Web-based Curriculum

Practice of research

Story of data

Fundamentals of RDM
Online Librarian Training: Compass Learning System

NYU School of Medicine Compass

What is Compass?  Learn about NYU School of Medicine  Sign In

Topics
- Addiction Medicine
- Cardiology
- Dermatology
- Education
- Embryology
- Endocrinology
- Epidemiology
- Gastroenterology
- Genetics
- General Surgery
- Hematology
- Histology
- Infectious Diseases
- Informatics
- Internal Medicine
- Neuroradiology
- Obstetrics
- Otolaryngology
- Pathology
- Pediatrics
- Pharmacology
- Physiology
- Psychiatry
- Pulmonology
- Radiology
- Radiation Medicine
- Reproductive Biology

Search Compass

Learn physical exam skills in the Merrin Knee Examination Activity.

All available Compass Activities:
1. Research Data Management Training for Information Professionals: The Story of Data
2. Research Data Management Training for Information Professionals: The Data Lifecycle
3. Research Data Management Training for Information Professionals: Understanding Researchers
4. Research Data Management Training for Information Professionals: Research Data Management Climate
5. Research Data Management Training for Information Professionals: Data Documentation Best Practices
6. Research Data Management Training for Information Professionals: Data Standards

Categories
- C1T: Undergraduate Medical Education Curriculum
- C1T: Translational Research Education and Careers (TREC)
- Disease Focused C1T Pillar Curriculum
- Educator Resources
- C1T: Graduate Medical Education Curriculum
- Histology
- Internal Medicine
- Neuroradiology
- Obstetrics
- Otolaryngology
- Pathology
- Pediatrics
- Pharmacology
- Physiology
- Psychiatry
- Pulmonology
- Radiology
- Radiation Medicine
- Research Data Management
- Substance Abuse Research
- Education and Training (SMAET)
Online Librarian Training

Piloting

Cohort of biomedical librarians

Varied teaching experience
Online Librarian Training

Librarian Evaluation

- Knowledge gain & satisfaction
- Comfort level/intent to teach
- Qualitative follow-up
Preliminary Pilot Data
Preliminary Data: Data Lifecycle Module

n = 67

“information is shallow - I want to know more!”
“More audio and/or video would have been more effective for me”
“More clarity on the focus of the section”
Preliminary Data: Data Lifecycle Module

n = 67
Preliminary Data: Understanding Researchers Module

n = 47

“A few videos were very short (10-20 seconds.) You might consider combining.”

“More consistent in the format and presentation”
Preliminary Data: Understanding Researchers Module

n = 47
Preliminary Data: Completion Survey

n = 30

Comfort Level with Research Data Management Before/After Modules

Count of Participants

Not comfortable
Somewhat comfortable
Mostly comfortable
Very comfortable

Comfort level before/after modules

Not
Somewhat
Mostly
Very
Preliminary Data: Completion Survey

Comfort Level with Research Data Management Before/After Modules

n = 30
Preliminary Data: Completion Survey

- Qualitative follow-up

Comfort Level with Research Data Management Before/After Modules

- Not comfortable: 2/7
- Somewhat comfortable: 8/14
- Mostly comfortable: 4/5
- Very comfortable: 4/4
Preliminary Data: Completion Survey

- Qualitative follow-up
- Teaching toolkit
Preliminary Data: Completion Survey

- Qualitative follow-up
- Teaching toolkit

“...most comfortable” - but that's just my personality. I don't feel confident with new material until I've thoroughly researched all aspects of a subject.”
Preliminary Data: Completion Survey

Use what you have learned

n = 30
Follow Up Phone Conversations

RDM “experts”

Potential candidates for Round 2 of piloting:

1 definite candidate

10 possible candidates
Librarians Teaching Researchers
Librarians Teaching Researchers

In-person Curriculum

- Slides & Script
- Evaluation materials
- “Edutainment” Videos
Librarians Teaching Researchers

Piloting

Observing librarians teach

Follow-up interviews with librarians
Librarians Teaching Researchers

Researcher Evaluation

- Knowledge gain
- Satisfaction
- Intent to practice
Centralized data collection

Evaluation data
(Librarian & Researcher)
Six month follow-up surveys

Librarians
Intent to teach
Did you teach?

Researchers
Intent to use
Change in RDM practice?

online survey by Thomas Marijnissen https://thenounproject.com/search/?q=survey&i=629098
Questions?

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