WHEN STARS ALIGN:
Redesigning an instruction and assessment program to align with the Framework for Information Literacy

Rachel W. Gammons @rwgammons
Lindsay Inge Carpenter @lindslibrarian
Jordan S. Sly @jordanssly
1. Institutional Context
2. Learning Outcomes Development
3. Assessment & Reporting
4. Case Study
5. Curriculum Mapping
6. Lessons Learned
University of Maryland Libraries

- 40,000 Students
- 25 Librarians
- 6 Units

Provost’s Commission on Learning Outcomes Assessment (LOA)

- UG LOA Report
- Assessment Cycle
- Faculty Buy-in
- Learning Outcomes Assessment Steering Committee
- UMD Academic Departments

BACKGROUND
The Framework... is based on a cluster of interconnected core concepts, with flexible options for implementation, *rather than on a set of standards or learning outcomes*, or any prescriptive enumeration of skills.

Searching as Strategic Exploration

The act of searching often begins with a question that directs the act of finding needed information. Encompassing inquiry, discovery, and serendipity, searching identifies both possible relevant sources as well as the means to access those sources...
Searching as Strategic Exploration
Learners will be able to recognize that research is an iterative process which includes defining an information need, initiating and refining a search strategy, and seeking alternative points of view on a topic. Learners will employ increasingly sophisticated and varied search strategies, and will recognize how their own perspective influences their search process.
STEM Unit: Searching as Strategic Exploration
Learners will develop research questions or experimental hypothesis, identify concepts comprising their research topic, and use research tools to locate scholarly literature, statistical data, standards, models, code, or other information content necessary to support their arguments. Learners will determine the most appropriate search tools and strategies to support their research based on their personal and discipline-specific requirements.
NFSC460 - Community Health: Searching as Strategic Exploration
Students will be able to locate statistical information about their assigned community group at the local, state, and national level and utilize data to identify community health needs.
Authority is Constructed and Contextual
Learners will be able to differentiate between types of authority, such as subject expertise, societal position, or special experiences. Learners will identify which type of authority is best suited to their individual information need. Learners will recognize that while authority and format are related, both factors contribute to information source’s credibility and relevance to the learner’s information need.

Information Creation as Process
Learners will be able to differentiate a scholarly article from other information formats by describing characteristics of a scholarly article, such as the peer review process. Learners will be able to identify an information format appropriate for their information need. Learners will recognize that scholarly sources are not always the most appropriate format for their information need.

Information has Value
Learners will be able to produce accurate in-text and bibliographic citations using the appropriate citation style for their course. Learners will recognize the value of an attribution process beyond punitive repercussions for plagiarism and academic dishonesty.

Research as Inquiry
Learners will be able to recognize when their research question is too broad or too narrow for the scope of their assignment. Learners will utilize the research process as an opportunity to gain new knowledge about their topic and gradually refine their initial research question.

Scholarship as Conversation
Learners will recognize the importance of seeking diverse perspectives in their research and including different points of view within their writing. Learners will be able to articulate the main debates and questions surrounding their research topic. Learners will be able to evaluate the merits of an author’s argument.

Searching as Strategic Exploration
Learners will be able to formulate effective search strategies (employing tools such as keywords, subject terms, and search filters) in library databases to locate relevant information sources for their topic. Learners will be able to differentiate between databases that provide background information, provide primary, and/or secondary research. Learners will recognize the academic library as a community resource and safe place to ask questions, conduct research, and work collaboratively.
Authority is Constructed and Contextual
Learners will be able to identify types of authority, such as subject expertise, societal position, or special experiences

Information Creation as Process
Learners will be able to differentiate a scholarly article from other information formats by describing characteristics of a scholarly article

Information has Value
Learners will be able to recognize the limitations of citation generators and identify citation guideline resources, such as Purdue OWL

Searching as Strategic Exploration
Learners will be able to formulate effective search strategies in Academic Search Complete to locate relevant information sources for their topic.

Learners will be able to identify at least three ways to contact a librarian for research assistance.
<table>
<thead>
<tr>
<th>LIBRARY UNIT</th>
<th>Academic Year 17-18 / 18-19</th>
<th>Academic Year 19-20 / 20-21</th>
<th>Academic Year 21-22 / 22-23</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FALL</td>
<td>SPRING</td>
<td>FALL</td>
</tr>
<tr>
<td>Teaching and Learning &amp; Academic Writing Program</td>
<td>COLLECT</td>
<td>ASSESS</td>
<td>TAKE ACTION</td>
</tr>
<tr>
<td>STEM</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Art &amp; Architecture</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Humanities &amp; Social Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music &amp; Performing Arts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Writing Program</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Components of each 2-Year Cycle

➔ Half of units (3/6) collect & assess
➔ LOASC supports librarians & compiles annual report
➔ Librarians share the process & experience at annual forum
Management Through LMS Canvas

- LOASC Canvas course
- Librarians enrolled as students
- Each unit forms a “group”
- Benchmarks of assessment process are assignments
- Communication through discussion boards
UMD LOASC Canvas Course

HOME

PAGE
Identify Course to Assess

In preparation for your learning outcomes assessment, please identify one or two courses that you might be able to assess either in the fall or the spring. Please provide a brief (1-2 sentence) description of what these courses cover and why they might be a strong candidate for assessment.

Remember, if you do not anticipate having a solo-session, this is a great time to partner up with another librarian! If you are planning to work with a buddy to complete the assessment, please share which librarian you might be working with.

<table>
<thead>
<tr>
<th>Points</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submitting</td>
<td>a text entry box or a file upload</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Due</th>
<th>For</th>
<th>Available from</th>
<th>Until</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 31</td>
<td>8 students</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sep 28</td>
<td>15 students</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

+ Rubric

File Upload: Text Entry, Google Doc, BOX

Upload a file, or choose a file you've already uploaded.

File: Choose File, No file chosen
Individual Assessment Plan

Started: Apr 20 at 4:18pm

Quiz Instructions

Question 1
Which course (name and number) will you be assessing? What month (approximately) will the assessment take place?

Question 2
How do you plan to assess:

**Searching as Strategic Exploration:** Learners will be able to recognize that research is an iterative process which includes defining an information need, initiating and refining a search strategy, and seeking alternative points of view on a topic. Learners will employ increasingly sophisticated and varied search strategies and will recognize how their own perspective influences their search process.
Individual Assessment Report

Started: Apr 9 at 4:35pm

Quiz Instructions

The UMD Program Learning Outcomes Assessment Summary Report is a standardized document provided by the Provost. There is a question for each outcome.

NOTE: The quizzes are not mandatory, but students are encouraged to participate.

Question 2

- Describe measures used for learning outcomes assessment. The most effective measures provide direct evidence of student learning and are clearly and directly connected to the specific learning outcome.

- Please include or attach examples of assessment measures (tools for analysis of student work, rubrics), prompts to generate student work (e.g., test questions, a paper, pretest/posttest questions), and, if available, any validity evidence (e.g., assessment measure content has been verified to be representative of the learning outcome by multiple faculty members). You may attach files at the end of this quiz.
Reflection
Case Study

Humanities, Social Sciences, & STEM Librarians
Library Learning Outcomes

**Authority is Constructed and Contextual**
Learners will be able to differentiate between types of authority, such as subject expertise, societal position, or special experiences. Learners will identify which type of authority is best suited to their individual information need. Learners will be able to determine if a source is authoritative in the context of their subject discipline or research topic.

**Information Creation as Process**
Learners will be able to differentiate between information formats by examining elements such as writing style, editing and review processes, and presentation of information. Learners will recognize these elements as indicators of quality. Learners will identify which type of format is best suited to their individual information need.

**Information has Value**
Learners will be able to recognize the inherent societal, intellectual, and legal values of an information source. As creators of information, learners will apply the attribution process appropriate for their specific discipline and information need.

**Research as Inquiry**
Learners will be able to articulate a research question through an increasingly sophisticated process including posing and refining simple questions, engaging with debates and dialogues, and seeking diverse perspectives within their discipline. Learners will determine a scope of investigation appropriate for their specific discipline and research question.

**Scholarship as Conversation**
Learners will be able to recognize and engage with sources of evidence, methods, and modes of discourse within their discipline. Learners will contribute to the scholarly conversation within their discipline at the appropriate level.

**Searching as Strategic Exploration**
Learners will be able to recognize that research is an iterative process which includes defining an information need, initiating and refining a search strategy, and seeking alternative points of view on a topic. Learners will employ increasingly sophisticated and varied search strategies and will recognize how their own perspective influences their search process.
Authority is Constructed and Contextual
Undergraduate students will be able to determine if a source is authoritative within the context of their subject discipline or research topic by approaching their work with a goal of finding key authors and works within their field as well as additional viewpoints and modes of authority based on scholarly reputation, societal position, or special experiences. Undergraduate students will understand some of the cultural factors surrounding, and thereby limiting, certain diverse perspectives and how this impacts their work.

Information Creation as Process
Undergraduate students will demonstrate an increasing level of sophistication in research topic formulation utilizing vital discipline-specific resources and advanced search strategies through the process of informed inquiry and the engagement with debates, dialogues, and a diversity of scholarly perspectives within their discipline.

Information has Value
Undergraduate students will be able to produce accurate in-text and bibliographic citations using the appropriate citation style for their course. Students will recognize the value of an attribution process beyond punitive repercussions for plagiarism and academic dishonesty. As such, undergraduate students will be able to recognize the inherent societal, intellectual, and legal values of an information source and the benefits of correctly utilizing authoritative sources.

Research as Inquiry
Undergraduate students will demonstrate an increasing level of sophistication in research topic formulation utilizing vital discipline-specific resources and advanced search strategies through the process of informed inquiry and the engagement with debates, dialogues, and a diversity of scholarly perspectives within their discipline.

Scholarship as Conversation
Undergraduate students will be able to recognize and critically engage with sources of evidence, methods, and modes of discourse within their discipline and recognize the on-going development and scholarly debates within their field. Learners will contribute to the scholarly conversation within their discipline at the appropriate level.

Searching as Strategic Exploration
Undergraduate students will be able to recognize that research is an iterative process which includes defining an information need, initiating and refining a search strategy, analyzing and synthesizing authoritative literature, and understanding the need to use the knowledge gained in this process to refine their research using tools appropriate to their discipline.
Research as Inquiry

1. Learners will survey scholarly or professional information for discussions, gaps, debates, questions, and other unresolved questions, to identify possible research questions in their discipline.

2. Learners will refine a research question by reflecting on points of view from a broad range of constituents including differences with their discipline and the community at large.

Searching as Strategic Exploration

1. Learners will develop research questions or experimental hypothesis, identify concepts comprising their research topic, and use research tools to locate scholarly literature, data, standards, models, code, or other information content to necessary to support their arguments.

2. Learners will determine the most appropriate search tools and strategies to support their research based on their personal and discipline specific requirements.
Identify Course to Assess

In preparation for your learning outcomes assessment, please identify one or two courses that you might be able to assess either in the fall or the spring. Please provide a brief (1-2 sentence) description of what these courses cover and why they might be a strong candidate for assessment.

Remember, if you do not anticipate having a solo-session, this is a great time to partner up with another librarian! If you are planning to work with a buddy to complete the assessment, please share which librarian you might be working with.

<table>
<thead>
<tr>
<th>Due</th>
<th>For</th>
<th>Available from</th>
<th>Until</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 31</td>
<td>8 students</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sep 28</td>
<td>15 students</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Points 0

Submitting a text entry box or a file upload

File Upload: [Text Entry] [Google Doc] [BOX]

Upload a file, or choose a file you've already uploaded.

File: [Choose File] No file chosen
NFSC 470

Students will be able to locate and use statistical information about their assigned group at the local, state, and national level, use data to identify community health needs and ethically use information in the form of citations and references.

This course requires students to complete an in-class assignment to use statistical and literature database tools to find citations to data for course research projects.
Question 1

- State the learning outcomes that were assessed. (These will be your unit outcomes for Searching as Strategic Exploration and Research as Inquiry.)
- Although not required, you may also list your course-level learning outcomes for these two frames.

Your Answer:

1) Searching as Strategic Exploration

STEM Team Learning Outcomes:

1. Learners will develop research questions or experimental hypothesis, identify concepts comprising their research topic, and use research tools to locate scholarly literature, data, standards, models, code, or other information content necessary to support their arguments.
2. Learners will determine the most appropriate search tools and strategies to support their research based on their personal and discipline specific requirements.

Course Learning Outcomes:

1. Locate and use statistical information about their assigned group at the local, state, and national level
2. Locate and use scholarly literature to find data related to community health needs
Question 2

- Describe measures used for learning outcomes assessment. The most effective measures provide direct evidence of student learning and are clearly and directly connected to the specific learning outcome.
- Please include or attach examples of assessment measures (tools for analysis of student work, rubrics), prompts to generate student work (e.g., test questions, a paper, pretest/posttest questions), and, if available, any validity evidence (e.g., assessment measure content has been verified to be representative of the learning outcome by multiple faculty members). You may attach files at the end of this quiz.

Your Answer:

We use an in-class worksheet and LibGuide that preset teams use to explore data available on their assigned community health topics. Worksheet questions ask students to locate statistical information, scholarly articles, and datasets on their assigned topics and provide source information including APA formatted citations. Students also identify a technique for using articles to find additional information.
NFSC 470 In-Class Assignment

NFSC 470: Community Health LibGuide: [http://libguides.umd.edu/NFSC470](http://libguides.umd.edu/NFSC470)

1. Where are some places you can find statistical information about your assigned community group?

2. Using the CDC National Center for Health Statistics website, locate a dataset or statistical information for your assigned topic/community group. Is this a good set of data to use for your project? List some criteria you used to determine why this was a valid source of information.

3. Document the citation for the dataset you found in APA style below (see link to APA Citation Style in guide). How would the citation look in the text of your report? In the bibliography?

Using the Public Health Database (ProQuest), locate a scholarly article for your assigned topic/community group.

1. Create an APA citation for the article (try using Zotero this time). How would this citation look in the text of your report? How would it look in your bibliography?

2. Locate a dataset that the authors have cited from another resource. What is the APA citation for the dataset or article that the dataset is from? How would this citation look in the text of your report and in your bibliography?

3. What is a way you can use articles to locate more information about your topic?
NFSC 470 In Class Assignment Rubric

Question 1:
Searching as Strategic Exploration: Learners will develop research questions or experimental hypothesis, identify concepts comprising their research topic, and use research tools to locate scholarly literature, data, standards, models, code, or other information content necessary to support their arguments.

Where are some places you can find statistical information about your assigned community group?
2 Point Answer: Student specifically identifies more than one source of information which could reasonably be expected to provide relevant statistical information.
1 Point Answer: Student specifically identifies at least one source of information which could reasonably be expected to provide relevant statistical information.
0 Point Answer: Student does not specifically identify at least one source of information which could reasonably be expected to provide relevant statistical information.

Question 2
Using the CDC National Center for Health Statistics website, locate a dataset or statistical information for Diabetes. Is this a good set of data to use for your project? List some criteria you used to determine why this was a valid source of information.
2 Point Answer: Student specifically identifies at least one relevant dataset or source of statistical information on diabetes, and provides substantial reasons for why the source is or is not a valid source of information for their assigned community.
1 Point Answer: Student specifically identifies at least one relevant dataset or source of statistical information on diabetes, but does not provide substantial reasons for why the source is or is not a valid source of information for their assigned community.
0 Point Answer: Student does not specifically identify at least one relevant dataset or source of statistical information on diabetes.

Question 3
Document the citation for the dataset you found in APA style below. How would the citation look in the text of your report? In the bibliography?
2 Point Answer: Student provides a reasonably accurate in text and bibliographic APA citation for the item selected in question two.
1 Point Answer: Student provides a reasonably accurate for either the in text or bibliographic APA citation for the item selected in question two, but not both.
0 Point Answer: Student does not provide a reasonably accurate for neither the in text nor bibliographic APA citation for the item selected in question two.

Question 4
Locate a scholarly article using the ProQuest Public Health database. What is the APA citation for the article? How would this citation look in the text of your report and in your bibliography?
2 Point Answer: Student provides a reasonably accurate in text and bibliographic APA citation for the article.
1 Point Answer: Student provides a reasonably accurate for either the in text or bibliographic APA citation for the article, but not both.
0 Point Answer: Student does not provide a reasonably accurate for neither the in text nor bibliographic APA citation for the article.

Question 5
Locate a dataset that the authors have cited from another resource. What is the APA citation for the dataset that the authors are from? How would this citation look in the text of your report and in your bibliography?
3 Point Answer: Student correctly identifies a dataset from the article’s bibliography, and provides a reasonably accurate in text and bibliographic APA citation for the identified dataset.
2 Point Answer: Student correctly identifies a dataset from the article’s bibliography, and provides a reasonably accurate for either the in text or bibliographic APA citation for the identified dataset.
1 Point Answer: Student correctly identifies a dataset from the article’s bibliography, but fails to provide a reasonably accurate for either the in text or bibliographic APA citation for the identified dataset.
0 Point Answer: Student does not correctly identify a dataset from the article’s bibliography.

Question 6
Searching as Strategic Exploration: Learners will determine the most appropriate search tools and strategies to support their research based on their personal and discipline specific requirements.

What is a way you can use articles to locate more information about your topic?
2 Point Answer: Student describes either the citation chaining or cited reference search process, and suggests a tool that can be used to facilitate this process (e.g. article bibliographies, Google Scholar, etc.).
1 Point Answer: Student describes either the citation chaining or cited reference search process, but does not explicitly describe a tool that can be used to facilitate this process (e.g. article bibliographies, Google Scholar, etc.).
0 Point Answer: Student does not describe either the citation chaining or cited reference search process.
Question 2

Using the CDC National Center for Health Statistics website, locate a dataset or statistical information for Diabetes. Is this a good set of data to use for your project? List some criteria you used to determine why this was a valid source of information.

2 Point Answer: Student specifically identifies at least one relevant dataset or source of statistical information on diabetes, and provides substantial reasons for why the source is or is not a valid source of information for their assigned community.

1 Point Answer: Student specifically identifies at least one relevant dataset or source of statistical information on diabetes, but does not provide substantial reasons for why the source is or is not a valid source of information for their assigned community.

0 Point Answer: Student does not specifically identify at least one relevant dataset or source of statistical information on diabetes.
Question 3

Document the citation for the dataset you found in APA style below. How would the citation look in the text of your report? In the bibliography?

2 Point Answer: Student provides a reasonably accurate in text and bibliographic APA citation for the item selected in question two.

1 Point Answer: Student provides a reasonably accurate for either the in text or bibliographic APA citation for the item selected in question two, but not both.

0 Point Answer: Student does not provide a reasonably accurate for neither the in text nor bibliographic APA citation for the item selected in question two.
Question 3

- Present results (i.e., data collection process, analysis methods, and findings and data) from learning outcomes assessment. The presentation should allow interpretation (present interpretation under Conclusions) of the data in the context of the learning outcome. Consider including numbers of students assessed, scores achieved, and pertinent demographic information (i.e., information showing how the students sampled are representative of the broader population of students in the program and that the students sampled have taken the courses where the learning outcome was taught), and evidence of reliability. A table may be useful to report assessment data.

- You may format your table here, or upload doc, image, or excel files at the end of this quiz.

Your Answer:

<table>
<thead>
<tr>
<th>Course Learning Outcomes</th>
<th>Number of students achieving full points</th>
<th>Percentage of all students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifies a source of information for statistical data</td>
<td>22</td>
<td>67%</td>
</tr>
<tr>
<td>Describes strategies and/or tools to locate more information</td>
<td>29</td>
<td>88%</td>
</tr>
</tbody>
</table>
Question 4

- Present **interpretation** of results above. Indicate how conclusions follow directly from results, with insightful analysis regarding student learning.
- You may wish to provide interpretations in the context of the program (referring to a curriculum map if you have one) to illustrate how classes/activities might have affected results.

Your Answer:

Students were fairly comfortable using different strategies to locate information on community health topics. Only one group did not score full points as they did not elaborate about citation chaining tools. Students were less successful with listing sources to find statistical data. Some seemed to answer only the website that was reviewed in class, but not those listed in the LibGuide or found during exploration. However, a majority of students met both learning objectives.
Question 5

- What actions will you take as a result of the analysis and assessment process?
- Please be specific about any changes to courses, curriculum, or assessment process resulting from your analysis. You may want to consider referring to your curriculum map, if you have developed one.

Your Answer:

Based on student response to the in-class assignment questions, both the worksheet and the rubric should be updated to clarify expectations for question responses by the students. Some of the points lost where students only offered one source, but two or more were expected, could have been gained if the worksheet was designed to indicate more than one response was required. Both the worksheet and rubric will be edited before teaching this class again.
Curriculum Mapping
Goals

○ 2017-2018 Academic Year
○ Instruction Statistics
  ◦ LibInsight (Springshare)
○ Where are outcomes being taught?
○ What level are they being taught at?
○ Who is teaching them?
Searching as Strategic Exploration
Research as Inquiry
Authority is Constructed
Searching as Strategic Exploration

[Bar charts showing data distribution across different categories for 'Introduced', 'Reinforced', 'Mastered', and 'N/A'.]
Lesson One:
Organize a small group to draft the initial outcomes
Lesson Two:
Proceed with caution & move slowly.
Lesson Three:
Clear communication is key!
Thanks!

LIBGUIDE:  
http://lib.guides.umd.edu/loex2018

ACKNOWLEDGEMENTS:  
- Kelley O’Neal for help with data visualization.
- Presentation template from slide carnival.

CONTACT:  
- lib-loasc@umd.edu