

Library Liaison Report prepared by Todd Heldt

Library Unit-Level Assessment Plan

In keeping with the tradition of assessment at HWC, the library has been tasked with the creation of a unit-level assessment plan. In response to this task, the library has re-evaluated its outcomes with regard to the changes in the field and within the library, itself; defined units that can be assessed; standardized instruction for single-session instruction sessions (“one-shots”); created an assessment tool more in line with those new goals, and pushed for greater collaboration among librarians during the design stage of lesson plans.

I. Department Buy-In and Outcome Definition

The library standardized its outcomes in line with the Association of College and Research Librarians (ACRL)’s *Standards for Information Literacy* in 2008 and informally assessed instruction at that time. As the broader field and HWC library’s instruction offerings changed, the library recognized the need to revisit the original outcomes. Thus, departmental buy-in was already in place. Each HWC librarian has a stake in the creation of the unit-level assessment plan because each took a survey to determine consensus about the most important information literacy concepts to teach in one-shots. In departmental meetings, the librarians discussed the findings and made plans to collaborate on lesson plans for agreed-upon concepts. Departmental buy-in is strong and aided by a department chair who recognizes the importance of assessment for improving student learning.

II. Assessment Research and Design

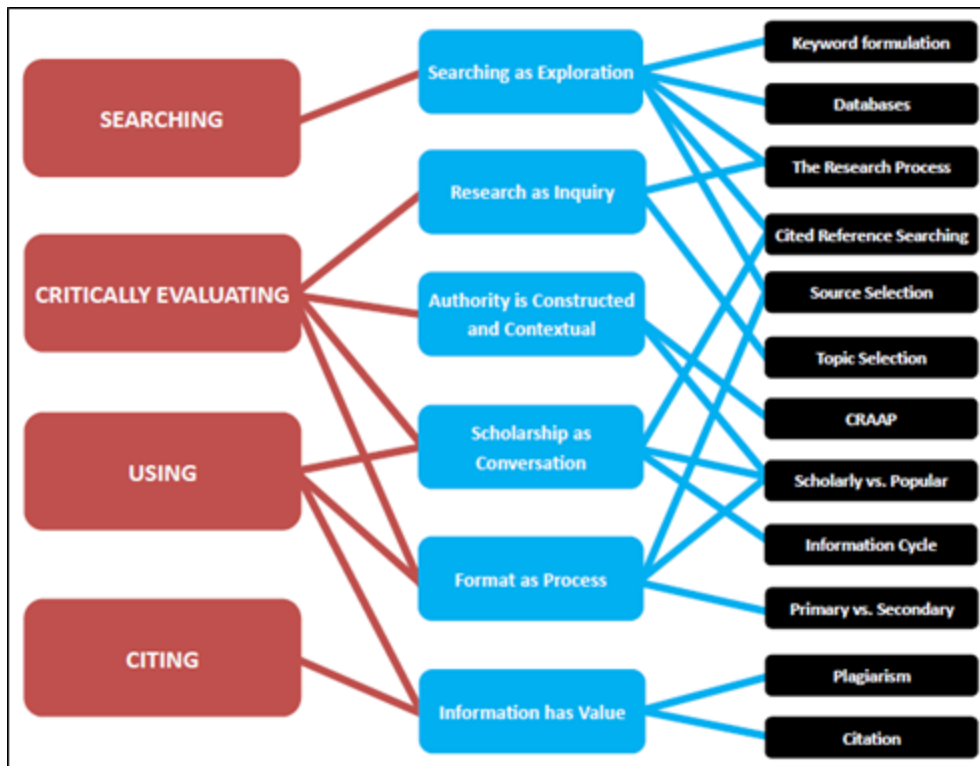
The biggest change in the field is the official adoption by the ACRL in January of 2016 of the Framework for Information Literacy (“Framework”) to replace the 2001 Standards of Information Literacy (“Standards”). Whereas the Standards lent themselves fairly seamlessly to assessment, the Framework is more difficult to pin down. In practice, the Standards summarized information literacy as the ability to know when information was needed, to find it from a variety of sources, to evaluate it for credibility, and to use it ethically. The Framework takes a more holistic approach to information literacy and consists of several overlapping “frames” of understanding about information, espousing such ideas as “Authority is Constructed and Contextual,” “Information Creation as a Process,” “Information Has Value,” “Research as Inquiry,” “Scholarship as Conversation,” and “Searching as Strategic Exploration.”

Each of these frames for understanding information consists of threshold concepts, knowledge practices, and dispositions. Knowledge practices and dispositions refer to the learned behaviors and habits of mind that the discipline of information literacy instills in its practitioners.

Threshold concepts are more difficult to pin down but may be understood as “the core tenets in a particular discipline” (Par. 3). Meyer and Land, the creators of the Framework, proposed that threshold concepts are “transformative, irreversible, integrative, bounded, and potentially troublesome” (qtd. In Oakleaf Par. 3) which suggests that the learning of information literacy concepts ideally will be completely integrated into a student’s understanding of and interaction with the world.

An administrator may look at the Framework and see it predominantly as a vehicle for obscuring the nice, neat lines of assessment provided by the Standards. But there are reasons that these lines may need to be blurred. When relying on the Standards to guide student learning, it is easy to see that some of the outcomes are more complex than others. As important as it is to be able to find information, in practice, the majority of the learning experience will be spent on teaching students to evaluate and use it. Teaching students to think critically about information and use it ethically is much trickier than teaching them to create a search strategy or to navigate a database interface. The Standards’ approach of treating information literacy as a set of discrete and functionary steps--of which, for instance, evaluation is one, but no greater than the others--makes it difficult to justify formal classroom learning that extends more than an hour. On the other hand, the Framework asks students to consider and understand holistic aspects of information, all of which ultimately assist in the evaluation and use of information. This approach requires more formal contact time to teach and promises deeper student learning and engagement, but for those reasons is more difficult to assess.

To be sure there is a great deal of overlap from the Standards to the Framework. Maoria J. Kirker, the Information Services & Assessment Librarian at George Mason University has provided a simple graphic that shows the interrelations between the two conceptualizations:



This overlap means that assessment of learning will not be starting over from scratch. But that is not the most important aspect of the Framework. Though it is possible to modify existing tools to work with the Framework, and though doing so may capture useful student data, the ultimate goal is to expand both the depth of what librarians teach as well as to increase the contact hours spent with students so that such expansion will be possible. An aspirational model for this kind of information literacy instruction is Champlain College's sequence of seven information literacy sessions which their students must take to graduate. The sessions cover five distinct sets of outcomes, and librarians have the contact hours to teach many important aspects of information literacy that one-shots just can't accommodate. The students are assessed via rubrics and portfolios, and it is easy to chart student learning from beginning to end.

Outcomes Revisited

Based on the Standards, for the past 15 years, the HWC library's SLOs have been

1. Identify key concepts and terms (keywords, synonyms and related terms) that describe the information they seek.
2. Construct search strategies using appropriate commands, including Boolean operators.
3. Retrieve information in a variety of formats using various information resources.
4. Evaluate web sites for authority, credibility and currency.

5. Recognize the legal and ethical importance of citations and cite information accordingly.

In light of the Framework, these outcomes are no longer adequate for the scope of learning that should take place. At the same time, it would be inappropriate to try to squeeze all of the learning the Framework engenders into one information literacy instruction session. The HWC library has defined the different kinds of learning experiences students may have with them and are linking those learning experiences with appropriate learning outcomes. The different units of library instruction are:

One Shots—when a professor brings a class to the library for information literacy instruction intended to help them complete a specific research task, such as a paper or project.

Multi-Session Instruction—when a professor brings a class to the library for multiple instruction sessions, each of which will cover a different aspect of information literacy, such as the research process, citations and plagiarism, or finding credible resources on the open internet.

LIS 105 and LIS 101—Credit-bearing information literacy courses worth one and three credit hours, respectively, which meet all semester.

Outreach across the Curriculum—Providing handouts, tutorials, exercises, assignments, or other online tools and resources to classroom teachers outside of the library for use fulfilling the general education objective of information literacy.

Tracking learning in these different kinds of sessions will require more than one tool. In cases of more intensive or immersive information literacy instruction, such as semester-length courses, assessment tools can be mapped entirely to the Framework, but in limited exchanges, such as one-shots, more basic instruction is required. Moreover, while one-shots and semester-length courses can be standardized and assessed accordingly, the multi-session courses may often cover different materials, based solely on the decisions of the non-departmental professor with whom the librarians are collaborating.

Librarian Survey

To standardize the information taught in one-shots, HWC librarians completed a survey to determine the most important concepts to cover. Surveys were completed September 22, 2016, and the numbers highlighted in yellow indicate the relative importance of the skill denoted at the top of the column. **The lower numbers** represent the consensus of the most important concepts, and **the higher numbers** are deemed less crucial. Looking at the raw numbers shows a wide range of opinions, but the average scores indicate some degree of agreement.

Evaluation and Critical Thinking	Narrowing Your Topic	Research Questions and Thesis Generation	Search Strategies and Boolean Operators	Database Interface Navigation	Subject Headings and Keywords	Outlining the Research Process	OPAC and Call Numbers	Peer-Reviewed vs. Popular Press	Citations and Plagiarism	Subscription vs. Open internet	Library website navigation	left blank
2	5	3	4	6	9	1	10	8	7			
9	4	11	3	7	5	8	2	6	10	1		
10	7	8	6	5	11	2	4	9	3		1	
1	5	11	2	6	3	8	7	4	9			10
5	1	4	2	9	8	3	10	6	7			11
2	1	4	3	6	5	9	10	8	7			
1	6	7	3	2	8	9	10	4	5			
10	8	9	2	1	3	7	5	4	6			
5	4.625	7.125	3.125	5.25	6.5	5.875	7.25	6.125	6.75			

In order of agreed importance:

3.125 Search Strategies and Boolean Operators

4.625 Narrowing Your Topic

5 Evaluation and Critical Thinking

5.25 Database Interface Navigation

5.875 Outlining the Research Process

6.125 Peer-Reviewed vs. Popular Press

6.5 Subject Headings and Keywords

6.75 Citations and Plagiarism

7.125 Research Questions and Thesis Generation

7.25 OPAC and Call Numbers

One respondent offered that teaching students how to use the library webpage was the most important thing to teach in one-shot sessions, and another noted that the most important thing is teaching students the difference between subscription databases and the open internet. Teaching students how to navigate the web page is important, and it is noted that such information should be taught in information literacy sessions. At the same time, teaching the difference between the internet and the databases, while important in its own right, fits generally under the designation of evaluation and thinking critically about information. Furthermore, though the librarians agree that being able to narrow a research topic is a crucial step in performing a search, some were concerned that teaching that would tread too closely to the traditional domain of English instructors, and still others were not sure how to assess it in a multiple choice format.

There is some disagreement about what is and isn't most important, and there is room for different librarians to teach different things to a certain extent. But collectively, HWC librarians agree that Search Strategies and Boolean Operators, Narrowing Your Topic, Database Interface Navigation, and Evaluation and Critical Thinking are a little more pressing than Outlining the Research Process, Peer-Reviewed vs. Popular Press, Subject Headings and Keywords, Citations and Plagiarism, Research Questions and Thesis Generation, and OPAC and Call Numbers.

The Middle States Commission on Higher Education (2007) noted that locally created assessment tools that are relevant to the learning goals of a specific school may be more effective and appropriate than standardized tools (46); however, they also stressed the importance of measuring validity and reliability (34). Bryan and Karshmer (2013) and Brooks (2013) wrote of the usefulness of assessing learning both pre- and post-session, and librarians should keep in mind that an assessment for one-shots should be short enough to complete in one class session and easy for students to access before the session so that learning can be tracked. Brooks suggested that the pre-test, in addition to capturing a baseline, should be used by librarians to tailor the instruction session to a class's specific needs (41).

In response to the survey, librarian Todd Heldt drafted questions meant to assess student learning. It should be noted that an earlier set of questions was piloted in the beginning of the spring 2017 semester, and that one of the questions was found to be problematic, and was thus modified for the official run. In particular, question 6 below was originally confusingly worded, and the best choice was less clear. The final questions appear below in the appendix (see App. A).

III. Pilot Assessment Tools and Processes

After piloting the assessment tool, the librarians recognized that the measure did not capture emerging growth or partial knowledge. In the pilot, the scoring was such that best answers received full credit and all others received no credit. But because some answers are not the best answers but represent emerging understanding, the measure was scored on a rubric (See. App. B). The library provided the rubric to data analyst Phillip Vargas for his use when calculating the final scores on each SLO.

IV. Administer Specific Assessment

In spring of 2017 the library assessed the learning of 170 students in one-shot classes. Participating classes came from all across the curriculum at various stages of their education, from first semester students to those about to graduate. The first question required students to enter their student ID numbers, so granular data about their educational experiences could be found if needed. No librarians reported problems administering the measure, and all the classes that librarians sought to measure were able to complete the tool.

V. Data Analysis

After weighting the scores with the rubric students attained the following average scores:

Overall Score

73.78%

Outcome 1

Create search Strategies using keywords and Boolean Operators

48.15%

Outcome 2

Name criteria for evaluating the usability of articles or other information sources

87.42%

Outcome 3

Explain the basic features and functions of library databases

79.03%

Outcome 4

Recognize research as an iterative process

80.54%

The standard deviations for each question were notably high, ranging from 16% to 36%, and questions remain as to what exactly that means. There could be wide variance for any number of reasons. The assessment tool itself may be unreliable, or perhaps the difference reflects the wide variance in the different kinds of students and courses that comprise the sample.

In either case, librarians were quite disappointed by the low performance on “Create search strategies using keywords and Boolean operators,” and there will be much discussion over the summer and into the fall 2017 semester about how to improve the questions meant to measure that outcome, as well as the different ways those concepts can be taught. Other than that, the results are largely positive considering the amount of material to be taught and the short amount of time to do so.

VI. Supporting Evidence-Based Change (Use of Findings)

HWC librarians will meet in the summer to determine what these findings mean and to discuss ways to alter the tool, the teaching, or both. The process will include discussions of each librarian's approach to teaching each outcome in anticipation of generating multiple approaches to each concept.

Success Factors

At this time, there is indication that although students did not perform poorly, in general, they are not consistently achieving the best answer possible. Any feeling of success should be tempered by an honest desire to improve student learning of these concepts. Additionally, departmental buy-in to the process can be seen as a success factor.

Recommendations

It is recommended that HWC librarians meet to discuss the questions used in the assessment tool to make sure that each accurately measures what it is intended to measure. Furthermore, the librarians should meet to discuss how each individual approaches the outcomes and put together a list of best practices, ready examples, and useful exercises.

Appendix A

- 1. Using the following research question as your starting point, which search terms below would return the greatest number of relevant results?**

What are the causes of heart disease? *

- A. What are the causes of heart disease?
- B. (Causes or reasons) and heart disease
- C. heart disease and heart attacks
- D. Causes or heart disease
- E. Causes and heart disease

- 2. A database search for Student Loans AND Poverty will retrieve... ***

- A. Articles about Student Loans but not necessarily about Poverty
- B. Articles about Poverty but not necessarily about Student Loans
- C. Articles about Poverty and articles about Student Loans
- D. Articles about Student Loans but only if they are also about Poverty

- 3. In order to find articles written specifically for academic audiences, which limiter should you use in the EBSCO database? ***

- A. Full-Text documents only
- B. Scholarly Journals (Including Peer-Reviewed)
- C. Filter by Relevance
- D. Filter by Date

4. In the HWC online catalog students can search for *

- A. Books in the physical collection at HWC library
- B. Books and e-books owned by all of the Chicago City Colleges
- C. Some but not all of the articles in our article databases.
- D. All of the above

5. When determining whether or not to use a source, you should pay attention to *

- A. Credibility
- B. Authority
- C. Date of Publication
- D. Bias/Purpose
- E. All of the above

6. You are doing research for your group presentation about medical viruses. Because some of your group members are novices at biology while others have had several courses in it, which publication(s) would you bring to the group to inform your presentation? *

- A. USA Today, because it is a generally reliable source that offers entry-level information in a cover story about drug-resistant viruses.
- B. Journal of Virology, because it is a peer-reviewed journal offering in-depth information for experts in the field.
- C. ColloidalSilverCure.com, because it claims that colloidal silver cures all known viruses.
- D. Popular Science, because it runs stories about computer viruses.
- E. All of the above.
- F. A and B.

7. Harold Washington College Library strives to help students learn about the important skill of information literacy. In order to help students we depend on accurate assessment data. If you have read the questions on this assessment completely and are trying to answer them to the best of your ability, please let us know by answering D for this question. *

- A
- B
- C
- D

8. You are researching your paper on gun control, when you find a credible, timely, and authoritative article that disproves your thesis. Should you... *

- A. revise your argument to include the new information, even though it isn't what you want to write
- B. use other sources, even if they are not as credible or up-to-date, to counter-argue the new information
- C. ignore the research and write what you want to write, because your opinion is important too
- D. either b or c

9. Your initial search for articles about rules governing charter schools in Illinois turns up only two articles. Should you... *

- A. try a different database for your search
- B. try different keywords and/or Boolean operators
- C. read the articles you retrieved to find additional keywords to add to your search strategy
- D. search the online catalog for books on the subject
- E. all of the above

Appendix B

This is the scoring rubric that assigns partial credit for correct but incomplete answers:

Using the following research question as your starting point, which search strategy below would return the greatest number of relevant results? What are the causes of terrorism? *

- A 0
- B 5
- C 0
- D 0
- E 2.5

A database search for Student Loans AND Poverty will retrieve... *

- A 0
- B 0
- C 0
- D 5

In order to find articles written specifically for academic audiences, which limiter should you use in the EBSCO database? *

- A 0
- B 5
- C 0
- D 0

In the HWC online catalog students can search for *

- A 2.5
- B 2.5
- C 2.5
- D 5

When determining whether or not to use a source, you should pay attention to *

- A 2.5
- B 2.5
- C 2.5
- D 2.5
- E 5
- 5

You are doing research for your group presentation about medical viruses. Because some of your group members are novices at biology while others have had several courses in it, which publication(s) would you bring to the group to

inform your presentation? *

A 2.5

B 2.5

C 0

D 0

E 2.5

F 5

Harold Washington College Library strives to help students learn about the important skill of information literacy. In order to help students we depend on accurate assessment data. If you have read the questions on this assessment completely and are trying to answer them to the best of your ability, please let us know by answering D for this question. *

A Remove from sample

B Remove from sample

C Remove from sample

D Keep in sample

You are researching your paper on gun control, when you find a credible, timely, and authoritative article that disproves your thesis. Should you... *

A 5

B 0

C 0

D 0

Your initial search for articles about rules governing charter schools in Illinois turns up only two articles. Should you... *

A 2.5

B 2.5

C 2.5

D 2.5

E 5

Works Cited

Brooks, A. (2013). Maximizing One-Shot Impact: Using Pre-Test Responses in the Information Literacy

Classroom. Retrieved April 08, 2017, from

<http://digitalcommons.kennesaw.edu/seln/vol61/iss1/6/>

Bryan, J. E., & Karshmer, E. (2013). Assessment in the One-Shot Session: Using Pre- and Post-Tests to

Measure Innovative Instructional Strategies among First-Year Students. Retrieved April 08, 2017,

from <http://crl.acrl.org/content/early/2012/06/19/crl12-369.short>

Kirker, M. (2014). You're Not Listening, Marian. Retrieved April 08, 2017, from

<https://maoriakirker.wordpress.com/>

Middle States Commission on higher Education. (2007). *Student learning assessment: options*

and resources (2nd. ed.). Retrieved April 8, 2017, from

https://www.msche.org/publications/SLA_Book_0808080728085320.pdf

Oakleaf, M. (2014). A Roadmap for Assessing Student Learning Using the New Framework for Information Literacy for Higher Education. *The Journal of Academic Librarianship*, 40(5), 510-514.