IL Assessment - Standards to the Framework

Joanna Blair, Liaison Librarian, Seneca College Libraries
Presented at WILU, June 7, 2018, University of Ottawa
Outline

2012-2017 Standards

In-house, cohort assessment study
Design, results, recommendations

2017-2018 Framework

ACRL Framework - how will we do assessment
Where we are now with recommendations
Why bother?

“If libraries intend to remain relevant on campus, they must demonstrate their contributions to the mission of the institution by becoming involved in assessment” (Oakleaf, 2009, p. 539)
2010
Seneca Libraries started mapping IL into degree programs

Seneca Libraries Information Literacy Plan for 2010-2013
SLIL team committed to creating an assessment tool to determine the effectiveness of the Information Literacy instruction that was mapped in the degree programs.
Seneca Libraries Strategic Initiatives 2010-2013:

"Develop a generic assessment tool to be used to measure the IL skill development in Degree students over their four year study period. Pilot the tool in 2011-2013"
November 2012 looked at “out of the box” assessment tools.

The questions were too high-level OR the questions were aimed at Americans.

1. You are learning about the United States presidential elections in Government class. You learn that the U.S. Constitution created an Electoral College that has the final say in presidential elections. You learn that there has been much debate surrounding the need for an U. S. Electoral College. You must now write a three-page paper about the United States Electoral College. Which of the following questions below is too narrow a topic for a three-page paper? (TRAILS, 2012)
Built an in-house tool

Built a bank of 35 multiple choice/TF questions.

Each question was mapped to one or more outcomes under four standards.

**ACRL Information Literacy Competency Standards for Higher Education**
Standard 1: Identify the information needed
Standard 2 (revised): Locate and access information
Standard 3: Evaluate information critically
Standard 4: Use information effectively to accomplish a specific purpose
Standard 5: Use information legally and ethically
Questions linked to outcomes

Question
1.5. To find the most recent, original, nutrition research for a research paper, I would consult (Outcome 1.f)
   a) an encyclopedia
   b) a magazine
   c) a journal*
   d) a book

Outcome
1.f Identify the characteristics and value of different sources (e.g. popular vs. scholarly, primary vs secondary.) 1.5, 1.1, 1.6
Design

Survey Monkey - 3 versions of the test, 16 questions each

Ethics approval Summer 2013

Pre-test Fall 2013 - incoming B.Comm students (n=184), delivered in-class

Post-test Spring 2017 - graduating B.Comm students (n=48), delivered in-class and online
**IL Intervention 2013-2017**

3 tutorials and 3 face to face workshops

- BAB100 (1st semester) - f2f workshop AND online tutorial with online quiz
- ENG105/106 (1st semester) - Academic Honesty tutorial with online quiz; MLA tutorial with online quiz
- ENG205 (2nd semester) - f2f workshop
- LSP700 (7th semester) - f2f workshop
What we wanted to see

1. Increase in scores over the four years

2. Interventions linked to an increase in scores
Data

Data Analyst

Del Burnett
### Results - overall

<table>
<thead>
<tr>
<th>ACRL Standard</th>
<th>Mean (%) correct 2013 (n=184)</th>
<th>Mean (%) correct 2017 (n=48)</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify the information need.</td>
<td>56.9</td>
<td>64.9</td>
<td>+8.0</td>
</tr>
<tr>
<td>2. Locate and access information...</td>
<td>53.9</td>
<td>59.0</td>
<td>+5.1</td>
</tr>
<tr>
<td>3. Evaluate information critically.</td>
<td>66.8</td>
<td>67.0</td>
<td>+0.2</td>
</tr>
<tr>
<td>5. Use information legally and...</td>
<td>62.8</td>
<td>68.6</td>
<td>+5.8</td>
</tr>
<tr>
<td>All</td>
<td>60.1</td>
<td>64.9</td>
<td>+4.8</td>
</tr>
</tbody>
</table>

For results please contact joanna.blair@senecacollege.ca
Significant Increase

The mean scores for learning objectives were compared using the Sign Test for paired samples on IBM SPSS v. 22.

The results for the Sign Test showed that the 2017 median scores were higher than the 2013 median scores and that the difference was statistically significant at \( p = 0.023 \)

<table>
<thead>
<tr>
<th>LO number</th>
<th>Learning Objective (LO)</th>
<th>Mean (% correct response for questions associated with objective 2013 (n=184))</th>
<th>Mean (% correct response for questions associated with objective 2017 (n=48))</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.a</td>
<td>specific databases) or subject guides for the topic</td>
<td>91.5</td>
<td>89.5</td>
</tr>
<tr>
<td>2.b</td>
<td>Build a search statement (brainstorm keywords and use boolean.)</td>
<td>56.5</td>
<td>65.8</td>
</tr>
</tbody>
</table>
### Significant Increase

The mean scores for individual questions were compared using the Wilcoxon-Sign Rank Test for paired samples on IBM SPSS v.22.

The results showed that the 2017 median scores were higher than the 2013 median scores and that the difference was statistically significant at $p = 0.002$ and $z = -3.096$.

<table>
<thead>
<tr>
<th>Question number</th>
<th>Mean scores (%) 2013</th>
<th>Mean scores (%) 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>72.9</td>
<td>71.1</td>
</tr>
<tr>
<td>1.2</td>
<td>56.2</td>
<td>55.2</td>
</tr>
<tr>
<td>2.8</td>
<td>60.3</td>
<td>68.4</td>
</tr>
<tr>
<td>2.9</td>
<td>9.7</td>
<td>10</td>
</tr>
<tr>
<td>2.10</td>
<td>63.2</td>
<td>70</td>
</tr>
</tbody>
</table>
Demographic questions

Q1. What Seneca degree program are you enrolled in?

Q2. How many times at Seneca, were you present for a class workshop led by a librarian?

Q3. Have you completed any of the following online library research tutorials through Blackboard?

Q4. Have you ever made a research appointment with a Librarian?

Q5. When did you start your degree at Seneca?
Results - IL sessions

Median scores for those who attended 2 IL sessions were higher than median scores for 1 IL session \( p=0.049 \) and \( z=-1.970 \). Wilcoxon-Sign Rank Test for paired samples.

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Results - research appointments

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## What we did well

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<td>Identify the information need.</td>
<td>56.9</td>
<td>64.9</td>
<td>+8.0</td>
</tr>
<tr>
<td>Locate and access information strategically and effectively.</td>
<td>53.9</td>
<td>59.0</td>
<td>+5.1</td>
</tr>
<tr>
<td>Evaluate information critically.</td>
<td>66.8</td>
<td>67.0</td>
<td>+0.2</td>
</tr>
<tr>
<td>Use information legally and ethically.</td>
<td>62.8</td>
<td>68.6</td>
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<td>All</td>
<td>60.1</td>
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## Results - increase more than 10%

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</tr>
</thead>
<tbody>
<tr>
<td>1.f</td>
<td>Identify the characteristics and value of different sources (e.g. popular vs. scholarly, primary vs secondary.)</td>
<td>46.4</td>
<td>69.7</td>
</tr>
<tr>
<td>1.g</td>
<td>Describe the process by which information is published. (e.g. blogs, peer review.)</td>
<td>53.1</td>
<td>78.9</td>
</tr>
<tr>
<td>2.c</td>
<td>Use features to refine your search (e.g. full-text, content type/publication type, date, peer review)</td>
<td>20</td>
<td>34.5</td>
</tr>
<tr>
<td>2.e</td>
<td>Use advanced searching options (e.g. field search, phrase, wildcard, truncation.)</td>
<td>57</td>
<td>79.0</td>
</tr>
<tr>
<td>5.a</td>
<td>Identify the nature of free vs fee-based access to information (includes authentication.)</td>
<td>65.1</td>
<td>79.0</td>
</tr>
<tr>
<td>5.b</td>
<td>Legally obtain, store, disseminate, and use text, data, images, sound according to Copyright rules.</td>
<td>62.6</td>
<td>79.2</td>
</tr>
<tr>
<td>5.c</td>
<td>Define plagiarism and academic honesty.</td>
<td>79.2</td>
<td>100.0</td>
</tr>
</tbody>
</table>

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What we didn’t do well

Standard 3. Evaluate information critically did not increase over the four years.

A multiple choice quiz may not be an ideal tool for evaluating critical thinking.
## What we didn’t do well

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<tr>
<th>LO #</th>
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</tr>
</thead>
<tbody>
<tr>
<td>2.i</td>
<td>Identify and describe the alert features to stay current.</td>
<td>9.8</td>
<td>10</td>
</tr>
</tbody>
</table>

We had outcomes that clearly were not being taught in our sessions.
Recommendations

1. Consider making *Standard 3. Evaluate information critically* a priority in IL. Create a generic, customizable, online tutorial and quiz on this topic to increase the impact of the teaching and the visibility of this subject.

2. Look for opportunities to engage with faculty to encourage awareness of *Standard 3. Evaluate information critically*. Reach out to WRT100 course developers in the School of English and Liberal Studies.
**Recommendations**

3. Maintain the strong library complement of resources for Academic Honesty, Citation, and Copyright as this is a clear area of strength for the Libraries and the College. Collaborate with the Academic Integrity Committee.

4. Review the current learning objectives and identify any LOs that the IL team is not teaching.

5. Continue to encourage Faculty to promote Research Appointments to students who are struggling with research.
How I would do it different
Problems with cohort assessment

- Staff members/roles are likely to change over time
- Goals of the instruction may change over time (Standards to Framework)
- Cohort changes - fewer students are in the program at the end (some of the students aren’t in their last year)
- Hard to determine what interventions they have received other than self-reporting
- No examination of the individual classes
Validity of the tool

By creating your own tool you will always wonder if it is a good tool.

If you create your own tool there is no way to compare across institutions.

Image by Tumisu via Pixabay.com
Increase buy-in from IL instructors

It was the assessment team who built the tool, administered the tool, collected, analyzed and interpreted the data.

Not enough investment or understanding from the IL team.
Seneca adopts ACRL Framework 2017
QA suggestion- Assess threshold concepts

Request from IL staff to develop a plan to assess IL learning outcomes at the course level.

Mandate for new Assessment committee

1. Recommendations for existing tools to assess student competency on IL learning outcomes at the course level and degree level
What I wanted

An example to follow that other colleges had validated and were using.
Needs Assessment - IL staff

**Extremely important**
- Online
- In-class
- Fast (under 5 minutes)

**Not important**
- Authentic assignment
- Ratings of instructor effectiveness
- Automatically graded
Literature Review

bit.ly/AssessBib

Image by YoDash via Pixabay.com
Outcomes Assessment in Undergraduate Information Literacy Instruction: A Systematic Review

Allison Erlinger

There is a well-established need for academic libraries to demonstrate their impact on student learning, particularly through the application of measurable outcomes in information literacy instruction (ILI). Recent literature is replete with articles both outlining the importance of well-designed assessment as an integral part of ILI and providing examples of the methods being used at particular institutions. This review synthesizes the theoretical and practical literature on ILI assessment in an effort to answer three questions: What do we know about assessment methods and what general recommendations exist? What assessment methods are academic librarians actually using? How does professional practice compare to existing recommendations?

Introduction

During the last two decades, both information literacy and outcomes-based assessment have come to the forefront of higher education. It is widely acknowledged in the literature that assessment has become a focus in all areas of higher education; instructional departments can no longer assume that students are learning—assessment is needed to identify gaps and areas for improvement.
Three models to consider

1. Minute paper model
2. Surveys
3. Authentic assessments
Assessing the Framework

Assessing threshold concepts should be less about skills and more on evidence of learning

(Berg 2017, Oakleaf 2014)
Models


Modified minute paper proposal

Each of the six threshold concepts will have a ‘prompt’ question and a rubric associated with it.

The rubric will have a number value associated with it so averages by class and or program will be possible.
**Scenario**
Imagine that you have just run into a friend in the hallway who is stressed about an upcoming research paper.

**‘Prompt’ question** for Information has Value
What 3 points of advice would you give your friend about respecting rules around using information ethically and responsibly while researching and writing this paper?

**Rubric**

<table>
<thead>
<tr>
<th>B - Beginner (3/10)</th>
<th>I - Intermediate (6/10)</th>
<th>A - Advanced (10/10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will mention citation and or plagiarism and checking published sources</td>
<td>Will emphasize the importance of citation and may mention copyright issues</td>
<td>Will emphasize the importance of citation and copyright laws. May mention either digital citizenship issues OR a publishing culture that does not treat voices equally.</td>
</tr>
</tbody>
</table>

Scenario adapted from (Duque, G., Oehrli, J. A., Peters, A., & Stark, A. 2017)
The proposal

One threshold concept will be evaluated in a session (fast, in-class)

Use LibWizard (online tool)

Session instructor will do the marking (buy-in)

Pilot in Sept. 2018 and validate the rubric
Tools for large scale assessment
# Standardized assessment tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threshold Achievement Test for Information Literacy (TATIL)</td>
<td>- ACRL Framework</td>
<td>5-9 dollars/student</td>
</tr>
<tr>
<td></td>
<td>- Module 1, Evaluating Process &amp; Authority, and Module 2, Strategic Searching</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 2 more modules in August 2018</td>
<td></td>
</tr>
<tr>
<td>Standardized Assessment of Information Literacy Skills (Project SAILS)</td>
<td>ACRL Information Literacy Competency Standards for Higher Education</td>
<td>5 dollars/student</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0-1000)</td>
</tr>
<tr>
<td>Information Literacy Advocacy and Assessment (ILAAP/WASSAIL)</td>
<td>ACRL Information Literacy Competency Standards for Higher Education - mapped to ACRL Framework</td>
<td>OER</td>
</tr>
<tr>
<td>Information Literacy Test (ILT)</td>
<td>ACRL Information Literacy Competency Standards for Higher Education</td>
<td>8 dollars/student</td>
</tr>
</tbody>
</table>
To be continued - 2019
Acknowledgements

Data Analyst - Delano Burnett

Assessment team 2018 - Agnieszka Gorgon

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Graham Lavender, 2012-2013

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