Assessment Triple Play: Intense Evaluation of First Year Students’ Information Literacy Skills

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Assessment Triple Play: Intense Evaluation of First Year Students' Information Literacy Skills

Abstract
Collaboration with stakeholders to employ a variety of assessment strategies paints the clearest picture of student learning. Lavery Library is participating in a long-term project to combine classroom assessment, end of semester cumulative work, faculty learning outcomes, and standardized testing to analyze First Year Students' information literacy (IL) skills, and to enhance the validity of all findings. Partnering with the First Year Program (FYP) and the Office of Institutional Advancement, librarians are able to see beyond one-shot class session worksheets, surveys, and quizzes.

Through membership on the FYP Faculty Assessment Committee, librarians are able to examine freshmen course assignments, final research papers, and portfolios. With assistance from the Office of Institutional Advancement, the library administers the The Higher Education Data Sharing Consortium (HEDS) Research Practices survey at 3 intervals: to freshmen within the first 6 weeks of classes, at the end of freshmen year, and to seniors before graduation. The library is committed to this project for a full 10 years, giving us the opportunity to collect year-over-year data and ascertain how well students retain and improve the IL learned in the FYP throughout their college careers. The data is analysed, cross-tabulated for demographic variables, and reported publicly and privately.

Disciplines
Library and Information Science

Comments
Presented at the Southeastern Library Assessment Conference in Atlanta, Georgia, on November 13, 2017.
Assessment Triple Play: Intense Evaluation of First Year Students’ Information Literacy Skills

Nancy Greco & Christina Hillman
St. John Fisher College, Lavery Library
FYP Assessment: The Library & The College

Library FYP
- Classroom Quizzes
- Program Assessment, HEDS Research, Practice Survey (longitudinal)

College FYP
- Class Assignments, Library Follow-up
- Programmatic, IL Rubric, & Assessment Portfolio

FYP Student Information Literacy Skills Assessment
Timeline....
2003 -- IL Work Group (Middle States), curriculum revision for nursing, sport studies, & FYP

2005 -- FYP requirement for one-shot library instruction session (LC & RW199)

2005-2012 -- Student & faculty surveys, mostly indirect assessment

Fall 2012 -- Freshmen Seminar added

2011-2012 -- HEDS

2013 -- iSkills

2013-Present -- Post-test library instruction, mostly direct assessment

2012-2016 -- Middle States prep.
- Summers of Love
- Hiring assessment staff (across schools & departments)
- Compliance Assist & Fisher Analytics
- Reinstitute HEDS with longitudinal assessment
- Library commendation from Middle States on our assessment

2015 -- Librarian representation on FYP Assessment Committee
It takes a long time!
Employ a variety of assessment types

- Classroom
- Programmatic
- Longitudinal
FYP Assessment: The Library & The College

Library FYP
- Classroom Quizzes
- Program Assessment, HEDS Research Practice
- Survey (longitudinal)

College FYP
- Class Assignments, Library Follow-up
- Programmatic, IL Rubric, & Assessment Portfolio

FYP Student Information Literacy Skills Assessment
Shift from Indirect to Direct Assessment

After today’s library session, describe your level of confidence finding the research needed for your class.

A. I feel very confident in my ability to do the research needed for my class.
B. I am confident that with a little more practice I can accomplish the research needed for my class.
C. I’m unsure about my abilities to do the research needed for my class, but I know that I can ask a librarian for help if I need it.
D. I think I may struggle with the research needed for this class

In today’s class you found articles using a library database. What words and search strategies did you use to find articles on your topic? Please include your search terms, AND, OR, truncation, etc. Write out the search you used that was most successful below.

(fill in the blank)
Lavery Information Literacy Program Plan

Lavery Library actively participates in the research and teaching of the St. John Fisher College community by providing a responsive, collegial team committed to connecting people and ideas worldwide. In a welcoming environment, the library innovatively guides discovery for a lifetime of informed decision-making.

Program goals for Information Literacy Program, which includes Reference and Instruction efforts regardless of location.
<table>
<thead>
<tr>
<th>Program Goal #1 (CWG 1, 3, 5, &amp; 6)</th>
<th>Program Goal #2 (CWG 3 &amp; 5)</th>
<th>Program Goal #3 (CWG 3 &amp; 5)</th>
<th>Program Goal #4 (CWG 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The information-literate Fisher graduate can determine and identify the information needed.</td>
<td>The information-literate Fisher graduate can access information effectively and efficiently.</td>
<td>The information-literate Fisher graduate evaluates information and its sources.</td>
<td>The information-literate Fisher graduate uses information ethically and legally.</td>
</tr>
<tr>
<td>1.a Gains an understanding of a topic in order to refine a research question</td>
<td>2.a Uses a variety of methods to efficiently retrieve information</td>
<td>3.a Assesses the usefulness and/or legitimacy of resources (scholarly, bias, credibility, timely, etc.)</td>
<td>4.a Properly credits sources in order to maintain academic integrity</td>
</tr>
<tr>
<td>1.b Chooses an appropriate resource for the research question</td>
<td>2.b Creates an effective search statement</td>
<td>3.b Evaluates sources based on initial information need (suitable for the purpose)</td>
<td>4.b Identifies and uses citation resources to construct proper citations</td>
</tr>
<tr>
<td>Freshmen Seminar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FYP LC</td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>FYP RW199</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
</tbody>
</table>
Quiz Findings
94% of students did well. Woo hoo!!
The Bad

Not terrible... but not awesome
The Ugly

Truncation...

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computerize*</td>
<td>33</td>
<td>9%</td>
</tr>
<tr>
<td>Computer*</td>
<td>91</td>
<td>26%</td>
</tr>
<tr>
<td>Comput*</td>
<td>143</td>
<td>40%</td>
</tr>
<tr>
<td>Compute*</td>
<td>89</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>356</td>
<td>100%</td>
</tr>
</tbody>
</table>

26% of students understand
Waa... waa... waa...
Closing the Loop!

Don’t hide the ugly. Do something about it, and document what you do!

What did we do about the abysmal truncation results?

- Redoubled our efforts
- Spent more time in class on this strategy and included an in-class activity
- Changed the example
Closing the Loop!

Did your changes make a difference?
Document results and next steps!

The next year...

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teenager*</td>
<td>22</td>
<td>6%</td>
</tr>
<tr>
<td>Teenage*</td>
<td>22</td>
<td>6%</td>
</tr>
<tr>
<td>Teens*</td>
<td>28</td>
<td>7%</td>
</tr>
<tr>
<td>Teen*</td>
<td>323</td>
<td>82%</td>
</tr>
<tr>
<td>Total</td>
<td>395</td>
<td>100%</td>
</tr>
</tbody>
</table>

42% improvement!
Nearing the 85% benchmark
Report it out and up!
Sample report for EALT/FYP

<table>
<thead>
<tr>
<th>Goal/Outcome</th>
<th>Method of Assessment</th>
<th>Summary of Data</th>
<th>Use of Results</th>
<th>Timeline/Responsible Person for Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 2</td>
<td>Quiz question 1</td>
<td>81% of students used 2 or more search strategies</td>
<td>As many students skipped this question, will make the question a required question on the online quiz. Also, will change the wording of the question. Perhaps investigate making the quiz a graded exercise.</td>
<td>Spring 2016/Greco</td>
</tr>
<tr>
<td>Goal 3</td>
<td>Quiz question 2</td>
<td>94% of students answered correctly</td>
<td>Although the results are good, will need to modify this question to reflect changes in the research environment.</td>
<td>Spring 2016/Greco</td>
</tr>
<tr>
<td>Goal 3</td>
<td>Quiz question 3</td>
<td>90% of students answered correctly</td>
<td>This concept is important for students to grasp and they are doing well with the strategies we are currently using. Leave question as is.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
HEDS* Research Practices Survey

What do we know about student IL skills by the end of the first year? Programmatically!

*Higher Education Data Sharing Consortium

Why we chose HEDS!

➔ Examine Persistence of IL Skills
➔ Nationally Recognized
  ◆ Over 80 colleges & universities administer survey
  ◆ Compare with other schools
➔ Standard Reports & Locally Created Reports
➔ Direct & Indirect Assessment

20
Sample Questions & Findings
Indicate whether the item is an entire book, a journal article, or a portion of a book.

<table>
<thead>
<tr>
<th>Type of Item</th>
<th>Incoming FYS</th>
<th>Spring FYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire book</td>
<td>5.2%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Journal article*</td>
<td>17.1%</td>
<td>26.1%</td>
</tr>
<tr>
<td>Portion of a book</td>
<td>68.6%</td>
<td>62.2%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>9.0%</td>
<td>6.7%</td>
</tr>
</tbody>
</table>


A. Entire book
B. Journal article
C. Portion of a book
D. Don’t know
How challenging is the following activity for you?

Knowing when to cite a source in text and in a bibliography.

A. No experience
B. Very difficult
C. Somewhat difficult
D. Somewhat easy
E. Very easy

<table>
<thead>
<tr>
<th></th>
<th>Incoming FYS</th>
<th>Spring FYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No experience</td>
<td>0%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Very difficult</td>
<td>8.5%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Somewhat difficult</td>
<td>26.5%</td>
<td>28.8%</td>
</tr>
<tr>
<td>Somewhat easy</td>
<td>39.8%</td>
<td>39%</td>
</tr>
<tr>
<td>Very easy</td>
<td>25.1%</td>
<td>25.4%</td>
</tr>
</tbody>
</table>
HEDS Findings with First Year Students

Are Fisher students being exposed to research skills fall to spring?

FY Students’ Experience with Research Skills from Fall to Spring

<table>
<thead>
<tr>
<th></th>
<th>% of students who reported NO experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>Using ILL</td>
<td>35%</td>
</tr>
<tr>
<td>Using databases</td>
<td>17%</td>
</tr>
<tr>
<td>Locating physical sources in the library</td>
<td>1%</td>
</tr>
</tbody>
</table>
HEDS Findings with First Year Students

How are Fisher students’ information literacy skills compared with other FY students?

Improvement in Students' Skill Using Research Terms and Strategies from Fall to Spring

<table>
<thead>
<tr>
<th></th>
<th>SJFC FY Students</th>
<th>All FY Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>⬆⬆⬆</td>
<td>⬆⬆⬆</td>
</tr>
<tr>
<td>Finding Sources</td>
<td>⬆⬆⬆</td>
<td>⬆⬆⬆</td>
</tr>
<tr>
<td>Evaluating Research and Sources</td>
<td>⬆⬆</td>
<td>⬆</td>
</tr>
<tr>
<td>Citing Sources</td>
<td>⬆⬆</td>
<td>⬆⬆</td>
</tr>
</tbody>
</table>
FALL TO SPRING RESULTS FOR FIRST YEAR STUDENTS

Average percentage of correct responses to research terms and strategies questions.

- Fisher FY Students: Fall 61%, Spring 70%
- All FY Students: Fall 62%, Spring 70%
CONFIDENCE LEVEL OF FIRST YEAR STUDENTS

<table>
<thead>
<tr>
<th>Overconfident Students</th>
<th>Fisher FY Students</th>
<th>All FY Students</th>
<th>Top 25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of students who thought that research skills were easy, but used them poorly</td>
<td>42%</td>
<td>27%</td>
<td>14%</td>
</tr>
</tbody>
</table>
HEDS with Programmatic Assessment

How is the program doing? Are students graduating with great IL skills? Longitudinal assessment required!

Longitudinal Evidence

➔ 10 years of data
➔ Incoming Freshmen → Outgoing Seniors
➔ Collaboration with Institutional Research
  ◆ Funding support
  ◆ Student level data
CHANGES IN RESULTS FROM FY TO SENIOR

Average percentage of correct responses to research terms and strategies questions

- Fisher Students: 70%
- All Students: 70%
- Students at Top 25% Institutions: 81%
We would like to see improvement in students’ information literacy skills throughout their time at Fisher.
Librarians Join the Conversation!
Librarian Representation on FYP Assessment Committee

Programmatic assessment on a different level!!

Fall 2015, we see ...

- Faculty assignments and suggest changes to better assess IL skills
- Student portfolios, reflections on IL, and finished products
- FYP Information Literacy Rubric and consults on changes

Most importantly, we are seen as an asset in assessment (Commendation from Middle States)
LC Core Goal #4
Students will practice basic information literacy skills. (Full Rubric on next page.)

1) Please submit all relevant completed student work to assess this goal (electronic or hard copy) from three randomly chosen students (students #3, #8, and #13 on your LC class roster). If possible, please remove from the submitted work all identifying information connected with the student or faculty teaching the course. **NOTE ON "RELEVANT WORK":** In order for the assessment committee to assess your students’ work for this goal, all students need to write a self-evaluation of their collaborative work, as defined by the faculty in each LC. This self-evaluation must include some reference to specific work that the students did, as individuals, toward the project; some evidence of specific work done in collaboration toward the project; and some evidence of interaction (whether positive or negative, fruitful or not) through the process.

2) Include your students’ reflective memo with each of your students’ submissions. (Instructions for the reflective memo are included on the portfolio and ePortfolio guidelines.) Faculty using ePortfolios may simply share the link to the relevant student ePortfolios in the space provided below as all ePortfolios include reflection on each goal in addition to a slightly modified reflective memo.

   NOTE: Submission of the portfolio (paper or electronic) is not required this year unless you find doing so easier. Submission of relevant work FOR THIS GOAL is, however, required (see #1 above).

   ePortfolio link (full address) for Student #3 ______________________________
   ePortfolio link (full address for Student #8 ______________________________
   ePortfolio link (full address for Student #13 ______________________________

3) Please attach assignment(s)/assignment guidelines and any activities and activity guidelines designed to meet this goal. That is, please submit the actual assignment or activity (e.g. paper guidelines, In-class activity description/guidelines, Peer Review instructions, etc.) that students received in connection with the work submitted.

4) Please offer a one paragraph reflection below that explains how you believe the assignment(s) helped students meet this goal.
5) Please offer a one paragraph reflection below on how that assignment actually worked or, if it didn’t work well, what you might do differently next time.

6) Using the rubric for this goal provided below, please offer a final reflection on how students #3, 8, and 13 did in terms of meeting each outcome of this goal. (The last column on the rubric below offers a place for you to offer an assessment, based on the rubric provided, of each student’s work. “Exemplary” = “3”; “Acceptable” = “2”; and “Not Acceptable” = “1”.)

<table>
<thead>
<tr>
<th>LC Core Goal #4</th>
<th>Students will practice basic information literacy skills.</th>
<th>Outcomes</th>
<th>Exemplary (3)</th>
<th>Acceptable (2)</th>
<th>Not Acceptable (1)</th>
<th>Assessment Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will become familiar with a number of resources</td>
<td>Student will explain how resources are different from each other.</td>
<td>Student is familiar with some different resources</td>
<td>Student is not familiar with different resources</td>
<td>Student #3: ___</td>
<td>Student #8: ___</td>
<td>Student #13: ___</td>
</tr>
<tr>
<td>Students will be able to locate information for their research</td>
<td>Student locates information from a variety of resources</td>
<td>Student locates information from some different resources</td>
<td>Student does not locate information from different resources</td>
<td>Student #3: ___</td>
<td>Student #8: ___</td>
<td>Student #13: ___</td>
</tr>
<tr>
<td>Students will be able to assess the credibility of resources and the appropriateness of the resources to their paper topic.</td>
<td>Student assesses the credibility of sources and the appropriateness of the resources to paper topic.</td>
<td>Student engages in some assessment of the credibility and the appropriateness of resources</td>
<td>Student does not engage in assessment of the credibility and/or does not engage in assessment of the appropriateness of resources</td>
<td>Student #3: ___</td>
<td>Student #8: ___</td>
<td>Student #13: ___</td>
</tr>
<tr>
<td>Students will be able to document sources correctly using appropriate citation format.</td>
<td>Student documents sources correctly using appropriate citation format.</td>
<td>Student documents sources using appropriate citation format most of the time</td>
<td>Student fails to document sources using appropriate citation format</td>
<td>Student #3: ___</td>
<td>Student #8: ___</td>
<td>Student #13: ___</td>
</tr>
</tbody>
</table>

**Include for Assessment:** Follow-up assignment to the Library Orientation session, writer’s memo (or similar) on one paper, and a brief Annotated Bibliography for one paper. At least one assignment should include instructions that specifically ask students to evaluate the credibility and appropriateness of the sources used or not used. Model assignments for this goal tend to specifically require students to include different types of sources and to evaluate the sources credibility and appropriateness in connection with the goals of the assignment.
## LC Assessment Results

### First Year Program
Learning Community Program – Assessment Fall 2015

<table>
<thead>
<tr>
<th>LC Core Goal #4</th>
<th>Outcomes</th>
<th>Exemplary (3)</th>
<th>Acceptable (2)</th>
<th>Not Acceptable (1)</th>
<th>Assessment Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students will become familiar with a number of resources.</td>
<td>Student is familiar with a variety of resources</td>
<td>Student is familiar with some different resources</td>
<td>Student is not familiar with different resources</td>
<td>Average [1-3] 2015 = 2.4 (New since last assessment)</td>
</tr>
<tr>
<td>Locating Information: Students will be able to locate information for their research</td>
<td>Student locates information from a variety of resources</td>
<td>Student locates information from some different resources</td>
<td>Student does not locate information from different resources</td>
<td>% Acceptable or Above 2015 = 97% (New since last assessment)</td>
<td></td>
</tr>
<tr>
<td>Assessing Sources: Students will be able to assess the usefulness and/or legitimacy of resources</td>
<td>Student assesses the usefulness and/or legitimacy of resources</td>
<td>Student engages in some assessment of resources</td>
<td>Student does not engage in assessment of resources</td>
<td>2015 = 2.2 (1.69 – F'06)</td>
<td></td>
</tr>
<tr>
<td>Incorporating Sources: Students will be able to document sources correctly using appropriate citation format.</td>
<td>Student documents sources correctly using appropriate citation format</td>
<td>Student documents sources using appropriate citation format most of the time</td>
<td>Student fails to document sources using appropriate citation format</td>
<td>2015 = 2.2 (1.84 – F'06)</td>
<td></td>
</tr>
</tbody>
</table>

Student Work to Include for Assessment of this Goal: Follow-Up Assignment to Library Orientation, Writer's Memo on one paper, and a brief Annotated Bibliography for one paper.
Librarians Suggest Changes
CHANGES ADOPTED – GOAL 4 (INFORMATION LITERACY)
Post Assessment 2015
Adopted by FYP Advisory Team on 4/28/16

<table>
<thead>
<tr>
<th>LC Core Goal #4</th>
<th>Students will increase their information literacy skills.</th>
<th>Students will practice basic information literacy skills.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcomes</strong></td>
<td><strong>Exemplary (3)</strong></td>
<td><strong>Acceptable (2)</strong></td>
</tr>
<tr>
<td>Students will become familiar with a number of resources</td>
<td>Student is familiar with a variety of resources. Students will explain how resources are different from each other.</td>
<td>Student is familiar with some different resources.</td>
</tr>
<tr>
<td>Students will be able to locate information for their research</td>
<td>Student locates information from a variety of resources.</td>
<td>Student locates information from some different resources.</td>
</tr>
<tr>
<td>Students will be able to assess the usefulness and/or legitimacy of resources Students will be able to assess the credibility of resources and the appropriateness of the resources to a paper topic.</td>
<td>Student assesses the usefulness and/or legitimacy of resources. Student assesses the credibility of sources and the appropriateness of the resources to paper topic.</td>
<td>Student engages in some assessment of the credibility and the appropriateness of resources.</td>
</tr>
<tr>
<td>Students will be able to document sources correctly using appropriate citation format.</td>
<td>Student documents sources correctly using appropriate citation format.</td>
<td>Student documents sources using appropriate citation format most of the time.</td>
</tr>
</tbody>
</table>

*Include for Assessment:* Follow-up assignment to the Library Orientation session, writer's memo (or similar) on one paper, and a brief Annotated Bibliography for one paper. At least one assignment should include instructions that specifically ask students to evaluate the credibility and appropriateness of the sources used or not used. Model assignments for this goal tend to specifically require students to include different types of sources and to evaluate the sources credibility and appropriateness in connection with the goals of the assignment.
Next Steps

So much more ... Assessment is never finished, we just move into the next cycle ...

➔ Goals and Outcomes for *The Framework for Information Literacy*
  ◆ More summers of love
➔ Librarian on Core Revision
➔ Negotiating roles & responsibilities
  ◆ New FYP Librarian, Instruction Coordinator, & Assessment Librarian
➔ Completing full longitudinal HEDS with class of 2019
Recap & Key Points
★ It takes time
★ Work with partners
★ Don’t recreate the wheel
★ Variety is the spice of life...
  ○ Use multiple assessment strategies, both teaching and program
★ Don’t collect data you won’t use
Questions