Assessment = Improved Teaching and Learning: Using Rubrics to Measure Information Literacy Skills

Library Assessment Conference 2010

Kathy Crowe
Associate Dean for Public Services
University of North Carolina at Greensboro (UNCG)

- Publicly supported
- University of North Carolina system
- High Research Activity
- Carnegie classification of community engaged
- Enrollment: 17,540 (16,090.25 FTE)
- Undergraduate: 14,315 (13,583.25 FTE)
- Graduate: 3,225 (2,507 FTE)
University Libraries

- Jackson Library and Music Library
- 1.2 million book volumes
- 37,000+ e-subscriptions
- 500 databases
- 95 faculty & staff
Information literacy program

- Long history of commitment to information literacy
- Two positions devoted to information literacy
- 524 classes 2009-10
- Online tutorial since 2000
- Information literacy game 2008
Information literacy in the curriculum at UNCG

• Librarians serve on UNCG Faculty Senate committees

• Information literacy included in one of core General Education learning goals:
  – Foundational skills: “Think critically, communicate effectively, and develop appropriate fundamental skills in quantitative and information literacies.”
Information literacy assessment

- Established student learning outcomes 2009
- Experimented with a variety of methods – pre and post tests, clickers, one minute papers, worksheets
- Administered iSkills test Spring 2010
Information literacy Assessment

Five year plan
- Assess three student learning outcomes each year to form a baseline

2010-11 outcomes
- Choose keywords that retrieve relevant information
- Select relevant books, articles
- Distinguish between scholarly and popular articles
Assessment study

- Communication Studies (CST 300)
- Three semester study
  - Pilot Spring 2009
  - Fall 2009 & Spring 2010
CST 300

• CST 300 (Communication Theory) required of all CST majors
• Students required to write 8-10 pp paper using primary research articles
• Long history of collaboration with the Library
  – Students attend library instruction session
  – Librarian prepares Lib Guide
  – Student complete worksheet
CST 300 worksheet

- Identify theory and context
- Identify keywords and Boolean search
- Identify 1 book or chapter
- Identify 3 primary source articles
- Use APA citation style
Five questions (Gilchrist and Zald) ACRL Information Literacy Assessment Immersion

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Outcome</td>
<td>What do you want the student to be able to do?</td>
</tr>
<tr>
<td>2. Curriculum</td>
<td>What does the student need to know in order to do this well?</td>
</tr>
<tr>
<td>3. Pedagogy</td>
<td>What type of instruction will best enable the learning?</td>
</tr>
<tr>
<td>4. Assessment</td>
<td>How will the student demonstrate the learning?</td>
</tr>
<tr>
<td>5. Criteria for evaluation</td>
<td>How will I know the student has done this well?</td>
</tr>
</tbody>
</table>
Information literacy outcomes

• Students construct a search strategy using appropriate vocabulary and Boolean operators in order to search for information effectively.

• Students distinguish primary source journal articles in order to gather appropriate resources for a research paper.

• Students apply an established citation style in order to document the sources they use appropriately.
Course outcome for information literacy

• Apply a working knowledge of information literacy as a tool for scholarship in communication studies including APA style for professional writing, library search techniques and use of primary sources (journal articles and other research publications)
Curriculum and Pedagogy

- Students attended class session by a librarian
- Completed worksheet (revised to match outcomes)
- Using encyclopedias and texts to help choose relevant vocabulary
- Using Boolean operators
- Library catalog
- Selecting and using databases
- Scholarly vs. popular articles
- Primary source articles
- Communication Studies journals
- APA handout
Assessment

• Developed a rubric to score library worksheet
### Outcome #1 (CST 300)
Students construct a search strategy using appropriate vocabulary and Boolean operators in order to search for information effectively.

<table>
<thead>
<tr>
<th>Criteria:</th>
<th>Uses two variables in search strategy with “and” operator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(3) Excellent</strong></td>
<td>Uses two topic-related variables with “and” operator appropriately</td>
</tr>
<tr>
<td><strong>(2) Good</strong></td>
<td>Uses two variables but 1 term doesn’t match topic or uses “and” operator inappropriately</td>
</tr>
<tr>
<td><strong>(1) Acceptable</strong></td>
<td>Uses one topic-related variable and doesn’t use “and” appropriately</td>
</tr>
<tr>
<td><strong>(0) Needs Improvement</strong></td>
<td>Missing variables and terms don’t match topic. Doesn’t use “and” operator</td>
</tr>
</tbody>
</table>
**Outcome #2**
Students distinguish primary source research material in order to gather appropriate resources for a research paper.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Student selects primary source research material</th>
<th>Appropriate journals or books</th>
<th>Includes theory and context in material</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) Excellent</td>
<td>All items are primary source research</td>
<td>All items from Communication/Allied journals or scholarly books</td>
<td>Theory and context in all items</td>
</tr>
<tr>
<td>(2) Good</td>
<td>Two items are primary source material</td>
<td>2 items from Communication/Allied journals or scholarly books</td>
<td>Theory and context in 2 items</td>
</tr>
<tr>
<td>(1) Acceptable</td>
<td>One item is a primary source</td>
<td>1 item from Communication/Allied journals or scholarly books</td>
<td>Theory and context in 1 item</td>
</tr>
<tr>
<td>(0) Needs Improvement</td>
<td>No items are primary research</td>
<td>No items from Communication/Allied journals or scholarly books</td>
<td>Does not include theory in context in any items.</td>
</tr>
</tbody>
</table>
**Outcome #3**
Students apply an established citation style in order to document the sources they use appropriately.

<table>
<thead>
<tr>
<th>Criteria – APA format:</th>
<th>Student includes all components of a citation in correct order, format and punctuation in accordance with the APA style.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(3) Excellent</strong></td>
<td>Citations include all components with correct order, format and punctuation</td>
</tr>
</tbody>
</table>
| **(2) Good**          | Citations are missing one of the following:  
  • 1 item out of order  
  • 1 punctuation item |
| **(1) Acceptable**    | Citations are missing one of the following:  
  • 1 component  
  • 1 item out of order  
  • 1 punctuation item |
| **(0) Needs Improvement** | Citations are missing two of the following:  
  • 1 component  
  • 1 item out of order  
  • 1 punctuation item |
Results - Skills 2009

Skills Spring 2009

- Q1 two variables
- Q2 and operator
- Q3 theory & context in sources
- Q4 primary research articles
- Q5 appropriate journals
- Q6 APA
Results – pilot spring 2009
Outcomes N= 34

• Outcome 1 search strategy
• Outcome 2 appropriate sources
• Outcome 3 citation style

• 1.10
• 1.36
• .72
Recommendations after pilot

• **Fall 2009**
  – Require students to take selected chapters of Libraries tutorial
  – Delay instruction session so that students have more time to think about their topics
  – Revise rubric to include four levels
  – Score the annotated bibliography

• **Spring 2010**
  – Developed tutorial on primary sources in Communication Studies
Improvement Spring 2009 – Fall 2009 (n=60)

- Outcome 1 search strategy
  - 80.00%

- Outcome 2 appropriate sources
  - 35.53%

- Outcome 3 citation style
  - 35.34%
Results - skills

![Bar chart showing results for skills]

- Q1: Two variables/"and" operator
- Q2: Theory & context in sources
- Q3: Primary research articles
- Q4: Appropriate journals
- Q5: APA

Legend:
- Blue: Spring 2009
- Red: Fall 2009
- Green: Spring 2010
Results - outcomes

- Search strategy
- Appropriate sources
- Citation style

Legend:
- Spring 2009
- Fall 2009
- Spring 2010
Conclusions and outcomes

• Pilot proved good data that students not gaining information literacy skills
• One-shot lecture and worksheet not adequate
• CST department discussing improved sequence in 100-300 level courses
• APA performance still a challenge
• Enhanced collaboration with teaching faculty in CST
Challenges

• Devising rubric takes time
• Scoring worksheets takes time (about 7-10 minutes for each)
• Gaining evidence far outweighs challenges
Future plans

• Share rubric with students
• Use additional raters
• Expand use of rubrics among other instruction librarians
Tutorial links

• PATH: Lighting Your Way From Research to Writing
  – http://library.uncg.edu/tutorials

• Finding Primary Sources in Communication Studies
  – http://library.uncg.edu/research/tutorials/ComStudiesPrimarySources/ComStudiesPrimarySources.html
Questions and comments