

**500 Students, 55 Raters,
and 5 Rubrics Later:
What We Learned from an
Authentic, Collaborative,
and National
Assessment Project**

Rubric Assessment of Information Literacy Skills

Megan Oakleaf, Jackie Belanger, Ning Zou, Carroll Wilkinson

LOEX May 2012

www.railsontrack.info

www.railsontrack.info



[participant login](#) ▶

[home](#) [about](#) [updates](#) [publications & presentations](#) [press](#)
[contact](#) [rubrics](#) [forum](#) [training](#) [results](#) [closing the loop](#)

Rubrics









Rubrics are powerful tools for assessment. The RAILS project is intended to help librarians create and use rubrics for information literacy assessment.

To this end, RAILS can serve as clearinghouse for information literacy rubrics. Existing RAILS rubrics are grouped by topic and/or by creator and accessible using the navigation links on the right. Any of these rubrics can be modified and saved by librarians; librarians can also upload new rubrics.

To do so, librarians should click the "participant login" link at the top of this page for site approval. Once approved as a RAILS website participant, librarians are welcome to adapt the rubrics as needed. To modify an existing rubric, approved participants should use the "Make and Save my own Rubric" button. (Note, this process does NOT actually change the existing rubric. Instead it makes a new copy that can be modified as needed.) To upload a new rubric, begin with a blank rubric found in the "Uncategorized" category. Please be sure to change the title of your new rubric!

Questions? Please post them in the forum area of the RAILS website!

Rubric Categories

-  [General](#)
-  [Define Information Needs](#)
-  [Evaluate Information](#)
-  [Locate Information](#)
-  [Non-Instructional Library](#)
- [Services](#)
-  [RAILS Cohort 2010-2011](#)
-  [Trinity University](#)
-  [University of Kentucky](#)



The Institute of Museum and Library Services is the primary source of federal support for the nation's 123,000 libraries and 17,500 museums. The Institute's mission is to create strong libraries and museums that connect people to information and ideas.



School of Information Studies
SYRACUSE UNIVERSITY



WAYPOINT
OUTCOMES

Project Purpose

- Investigate an analytic rubric approach to information literacy assessment in higher education
- Develop:
 - A suite of information literacy rubrics
 - A model of analyzing scores (reliability & validity)
 - Training materials for training/norming/scoring
 - Indicators of rater expertise
 - Website to disseminate assessment results & information about teaching/learning improvements as a consequence of rubric assessment



We want to learn...

- How can rubric assessment be used to improve IL instruction and services?
- Can librarians & disciplinary faculty use IL rubrics to provide valid & reliable scores of student learning?
- What skills/characteristics do librarians & faculty need to produce valid & reliable scores using IL rubrics?
- What training materials do librarians & faculty need to acquire these skills/characteristics?



Other Information Literacy Assessment Approaches

Surveys

Tests

Performance Assessments

Without rubrics, performance assessments sometimes lack interrater reliability.

Without reliability, open to validity problems too.



	Capstone 4	Milestones		Benchmark 1
		3	2	
Determine the Extent of Information Needed	Effectively defines the scope of the research question or thesis. Effectively determines key concepts. Types of information (sources) selected directly relate to concepts or answer research question.	Defines the scope of the research question or thesis completely. Can determine key concepts. Types of information (sources) selected relate to concepts or answer research question.	Defines the scope of the research question or thesis incompletely (parts are missing, remains too broad or too narrow, etc.). Can determine key concepts. Types of information (sources) selected partially relate to concepts or answer research question.	Has difficulty defining the scope of the research question or thesis. Has difficulty determining key concepts. Types of information (sources) selected do not relate to concepts or answer research question.
Access the Needed Information	Accesses information using effective, well-designed search strategies and most appropriate information sources.	Accesses information using variety of search strategies and some relevant information sources. Demonstrates ability to refine search.	Accesses information using simple search strategies, retrieves information from limited and similar sources.	Accesses information randomly, retrieves information that lacks relevance and quality.
Evaluate Information and its Sources Critically	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Use Information Effectively to Accomplish a Specific Purpose	Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth	Communicates, organizes and synthesizes information from sources. Intended purpose is achieved.	Communicates and organizes information from sources. The information is not yet synthesized, so the intended purpose is not fully achieved.	Communicates information from sources. The information is fragmented and/or used inappropriately (misquoted, taken out of context, or incorrectly paraphrased, etc.), so the intended purpose is not achieved.
Access and Use Information Ethically and Legally	Students use correctly all of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly three of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly two of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly one of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.

VALUE Info Lit Rubric

- Strengths
 - ACRL Standards
 - Basis for conversation
 - Demonstrates need for “in progress” assessments
- Challenges (when adapting to specific contexts)
 - Performance levels not mutually exclusive
 - Inconsistent wording across performance levels
 - Some adj/adv are open to broad interpretation
 - Specific details needed for scoring student work omitted



VALUE Rubric for Information Literacy	Capstone 4	Milestones		Benchmark 1
		3	2	
<p>Determine the Extent of Information Needed</p>	<p>Effectively defines the scope of the research question or thesis.</p> <p>Effectively determines key concepts.</p> <p>Types of information (sources) selected directly relate to concepts or answer research question.</p>	<p>Defines the scope of the research question or thesis completely.</p> <p>Can determine key concepts.</p> <p>Types of information (sources) selected relate to concepts or answer research question.</p>	<p>Defines the scope of the research question or thesis incompletely (parts are missing, remains too broad or too narrow, etc.).</p> <p>Can determine key concepts.</p> <p>Types of information (sources) selected partially relate to concepts or answer research question.</p>	<p>Has difficulty defining the scope of the research question or thesis.</p> <p>Has difficulty determining key concepts.</p> <p>Types of information (sources) selected do not relate to concepts or answer research question.</p>



VALUE Rubric for Information Literacy	Capstone 4	Milestones		Benchmark 1
		3	2	
Evaluate Information and its Sources Critically	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions . Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.



Adapting for Specific Contexts

	Expertise	Mastery		Novice
Determine the extent of information needed	Identifies the range of all relevant information to be gathered, determines the sources, types of information sources, and the search strategy to be used to obtain needed information.	Identifies the range of the research question to be investigated (as determined by context). Types of information sources relevant to the research question are identified.	Identifies the range of the research question to be investigated (as determined by context). Types of information sources relevant to the research question are identified.	Identifies the range of the research question to be investigated (as determined by context). Types of information sources relevant to the research question are identified.
Search for needed information	Searches information using effective, self-directed search strategies, including appropriate information sources.	Searches information using simple search strategies and uses external assistance to extend the search.	Searches information using simple search strategies and uses external assistance to extend the search.	Searches information using simple search strategies and uses external assistance to extend the search.
Evaluate information and its sources	Recognizes the reliability and credibility of information and other characteristics and fully understands the relationship of sources, types, and content of a source.	Identifies the reliability and credibility of information and other characteristics and understands the relationship of sources, types, and content of a source.	Identifies the reliability and credibility of information and other characteristics and understands the relationship of sources, types, and content of a source.	Identifies the reliability and credibility of information and other characteristics and understands the relationship of sources, types, and content of a source.
Use information effectively to accomplish a specific purpose	Communicates, applies, and synthesizes information from sources to fully address a specific purpose with clarity and logic.	Communicates, applies, and synthesizes information from sources to address a specific purpose.	Communicates, applies, and synthesizes information from sources to address a specific purpose.	Communicates, applies, and synthesizes information from sources to address a specific purpose.
Extend and evaluate information already used	Applies and evaluates use of the following information to address the problem and identifies the strengths and weaknesses of the information used to address the problem. Identifies the strengths and weaknesses of the information used to address the problem. Identifies the strengths and weaknesses of the information used to address the problem.	Applies and evaluates use of the following information to address the problem and identifies the strengths and weaknesses of the information used to address the problem.	Applies and evaluates use of the following information to address the problem and identifies the strengths and weaknesses of the information used to address the problem.	Applies and evaluates use of the following information to address the problem and identifies the strengths and weaknesses of the information used to address the problem.

Determine the extent of information...

	Performance Level	Performance Level	Performance Level	Performance Level
Criteria	Description	Description	Description	Description
Criteria	Description	Description	Description	Description
Criteria	Description	Description	Description	Description

Use effective research strategy...

	Performance Level	Performance Level	Performance Level	Performance Level
Criteria	Description	Description	Description	Description
Criteria	Description	Description	Description	Description
Criteria	Description	Description	Description	Description

Identify relevant information sources...

	Performance Level	Performance Level	Performance Level	Performance Level
Criteria	Description	Description	Description	Description
Criteria	Description	Description	Description	Description
Criteria	Description	Description	Description	Description

Evaluate information effectively...

	Performance Level	Performance Level	Performance Level	Performance Level
Criteria	Description	Description	Description	Description
Criteria	Description	Description	Description	Description
Criteria	Description	Description	Description	Description

2010-2011

The 1st Five Institutions

- 5 “lead” librarians met for intensive rubric training and developed draft rubric customized for their institution.
- Lead librarians secured examples of student work ($100+ \times 5 = 500+$) and raters ($10 \times 5 = 50$).
- PI visited each campus to lead rubric revision, norming, scoring.
- Analysis completed.



Example Collaboration

- Multiple courses and research paper assignments from across an interdisciplinary curriculum
- Rubric – Use information legally & ethically



Successful Campus Collaborations

- Start with established partners, existing librarian/disciplinary faculty collaborations
- Evaluate a skill relevant to many campus partners (ex. use information legally and ethically)
- Include those who can help disseminate results and promote IL assessment efforts across campus
- Meet with stakeholders regularly to review and improve assignment and rubric



Collaboration Challenges

- Embedding IL instruction and a shared assignment across multiple sections
- Time constraints
- Building sustainable practices and cross-campus buy-in
- Norming the rubrics



Rubric Norming Process

1. Think aloud through scoring several examples.
2. Ask raters to independently score a set of examples that reflects the range of services libraries produce.
3. Bring raters together to review their scores to identify patterns of consistent and inconsistent scores.
4. Discuss and then reconcile inconsistent scores.
5. Repeat the process of independent scoring on a new set of examples.
6. Again, bring all raters together to review their scores to identify patterns of consistent and inconsistent scores.
7. Discuss and then reconcile inconsistent scores. This process is repeated until raters reach consensus about applying the scoring rubric. Ordinarily, two to three of these sessions calibrate raters' responses.



A case study from WVU

- Rater team structure
- Description of assignment
- Description of abbreviated group norming process.



WVU Case Study cont.

- A closer look at the rubric norming results at WVU
- Strict does not win out



	Advanced	Developing	Beginning
Access the Needed Information	<p>Student:</p> <ul style="list-style-type: none"> Searches and locates websites or journal articles using effective search techniques demonstrated. Finds relevant and diverse information sources for assignment. Demonstrates persistence and ability to refine search when necessary. <p><i>Students rated as Advanced: 51%</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Searches and locates websites or journal articles using simple search strategies demonstrated. Finds information with partial relevance and quality for assignment. <p><i>Students rated as Developing: 41%</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Accesses websites or journal articles randomly. Does not apply new techniques demonstrated. Retrieves information that lacks relevance and quality for assignment. <p><i>Students rated as Beginning: 9%</i></p>
Use Information Ethically and Legally	<p>Student:</p> <ul style="list-style-type: none"> Follows style guide conventions correctly. Citations are mostly complete and accurate. <p><i>Students rated as Advanced: 41%</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Follows style guide conventions with errors. Citations have partially correct information. <p><i>Students rated as Developing: 48%</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Does not follow style guide conventions. Citations are not included. <p><i>Students rated as Beginning: 11%</i></p>
Evaluate Information and its Sources Critically	<p>Student:</p> <ul style="list-style-type: none"> Uses 4-5 of the points on the comprehensive list of evaluation criteria provided. Provides a reasoned rationale for using information for a given context. <p><i>Students rated as Advanced: 48%</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Uses a 2-3 points on the comprehensive evaluation criteria list provided. Provides a limited or incomplete rationale for using information for a given context. <p><i>Students rated as Developing: 39%</i></p>	<p>Student:</p> <ul style="list-style-type: none"> Does not apply the evaluation criteria provided or uses only 1 of 5. Provides no rationale for selecting sources for analysis. <p><i>Students rated as Beginning: 13%</i></p>

“Closing the Loop” Survey

RAILS - Closing the Loop

Exit this survey

1. Improvements Resulting from RAILS Participation

RAILS seeks to improve teaching, learning, and assessment. It may also result in increased collaboration, organizational change, or other positive impacts.

This form seeks to collect improvements that result from your participation in RAILS, large or small.

You may (and are encouraged) to return to this survey as often as you like.

***1. What improvements, impacts, or changes resulted from your RAILS participation?**

***2. Is this a change in:**

- Teaching Methods
- Student Learning
- Assessment Practice
- Collaboration
- Organizational Change

All institutions report improved *teaching*.

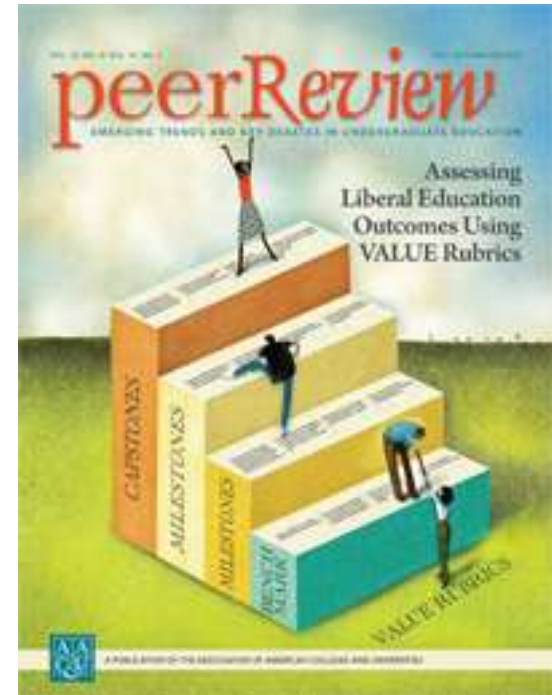
- RAILS “changed the way I teach...[the teaching] session has more structure, and the students seemed much more engaged.” [I1]
- Student comment about changed instruction: “The day that we went as a class to the library...was probably one of the most beneficial days of my semester.” [I1]
- Faculty feedback: “My teaching in [course] improved and the students’ work improved also.” [I2]
- Librarians have been invited to work with faculty to “better identify and align...course outlines to other information literacy standards.” [I3]
- “I learned that grading the assignments in the RAILS project was an empowering act for me. It will strengthen my teaching the next time because I now understand what the students really are not getting. This rubric creation and rating experience has facilitated valuable reflection on my teaching practice and I hope to weave what I now understand into my teaching the next time around.” [I5]

All institutions report increased *assessment* activity.

- “**Institutional implementation** of customized VALUE rubrics for IL and in other areas. Redesigning [course] IL rubrics and instructional materials.” [I2]
- “Project RAILS heightened the need for our college to purchase a software program...as a mechanism in which to consistently document feedback during artifact scoring sessions.” [I3]
- “All the librarians who participated in RAILS are ‘on board’ with the idea of assessment; however, not many of us were collecting final papers/artifacts. Seeing this final work helps us to build up a much richer picture of our teaching and of student learning, and **we are now planning to collect final papers routinely from targeted classes.**” [I4]
- “Participating in RAILS has enabled us to develop and pilot a process for collecting and assessing student work.... As a result of RAILS, we have developed a student consent form for collecting and using student work. We were also able to work out how best to approach faculty to ask their permission to use class work and talk to their students, as well as how best to talk to students about why and how we would use their work. This was an unexpected opportunity to make more visible to students what is actually involved in doing research. In short, **RAILS has enabled us to put systems and procedures in place that we will draw on for all subsequent assessment efforts!**” [I4]

And more...

- 5 of 5 are disseminating results via publications/presentations locally and nationally.
- 3 of 5 document more collaboration with institutional colleagues (faculty, staff, administration, co-curricular professionals).
- 2 of 5 are developing add-on research projects.



Lessons Learned

- “I know it when I see it” does **not** mean “I can articulate it.”
- There is **no magic-bullet** rater.
- If decisions about students lives are to be made, raters’ results should be analyzed thoroughly.
- The process of writing and rating with rubrics results in improvements in teaching, assessment, collaboration, etc.
- Almost everyone likes norming, and many people are surprised about how much they like it.



Logistics

- Organized deployment of rubric rating activities (including but not limited to norming) is a basic need for establishing inter-rater reliability.
- Large scale analysis of rubric assessment results is faster and more convenient when an appropriate assessment management system is a part of the process.
- Ergonomic issues are a concern.



Specificity Lessons

- **Analytical rubrics** appear to be more effective when assessing student artifacts than holistic rubrics.
- Specific, precise, explicit, detailed performance descriptions are crucial to achieve inter-rater reliability.
- Raters appear to be more confident about their ratings when student artifacts under analysis are **concrete, focused, and shorter in length.**



Norming Lessons

- **Norming is critical** for establishing shared understanding of the rubric and achieving greater inter-rater reliability.
- The best raters “believe in” outcomes, value constructed consensus (or “disagree and commit”), negotiate meaning across disciplines, develop shared vocabulary, etc.



2011-2012

- More training for lead librarians
- More norming practice for raters
- More precise rubrics & shorter artifacts
- Gold standard rater included (to run Cohen)
- Correlations between rater reliability and other attributes investigated
- Greater Waypoint Outcomes functionality



Questions?

for more information

www.railsontrack.com



Selected Readings

www.meganoakleaf.info

- Oakleaf, Megan. "Are They Learning? Are We? Learning and the Academic Library." *Library Quarterly*. 81.1. 2011.
- Oakleaf, Megan. "Dangers and Opportunities: A Conceptual Map of Information Literacy Assessment Tools." *portal: Libraries and the Academy*. 8.3. 2008.
- Oakleaf, Megan. "The Information Literacy Instruction Assessment Cycle: A Guide for Increasing Student Learning and Improving Librarian Instructional Skills." *Journal of Documentation*. 65(4). 2009.
- Oakleaf, Megan. "Staying on Track with Rubric Assessment: Five Institutions Investigate Information Literacy Learning." *Peer Review*. 2011.
- Oakleaf, Megan. "Using Rubrics to Assess Information Literacy: An Examination of Methodology and Interrater Reliability." *Journal of the American Society for Information Science and Technology*. 60.5. 2009.
- Oakleaf, Megan. "Using Rubrics to Collect Evidence for Decision-Making: What Do Librarians Need to Learn?" *Evidence Based Library and Information Practice*. 2.3. 2007.
- Oakleaf, Megan, Millet, Michelle S., and Leah Kraus. "All Together Now: Getting Faculty, Administrators, and Staff Engaged in Information Literacy Assessment." *portal: Libraries and the Academy*. 11(3). 2011.

