Assessing Student Learning Using Analytic Rubrics:

Initial Results of a National Study of Information Literacy Skills

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IU SOTL Lecture2012

www.railsontrack.info

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Assessment is a Key Concern

"The important question is not how assessment is defined but whether assessment information is used…
-Palomba & Banta

new leadership ALLIANCE for student learning and accountability

All assessment is a perpetual work in progress.
--Linda Suske

CHE MSA

Lumina FOUNDATION

National Institute for Learning Outcomes Assessment
Making Learning Outcomes Usable & Transparent

"The systematic assessment of student learning outcomes is essential to monitoring quality and providing the information that leads to improvement.
-Middle States Standard XIV

What we must decide is perhaps how we are valuable, rather than how valuable we are.
--F. Scott Fitzgerald

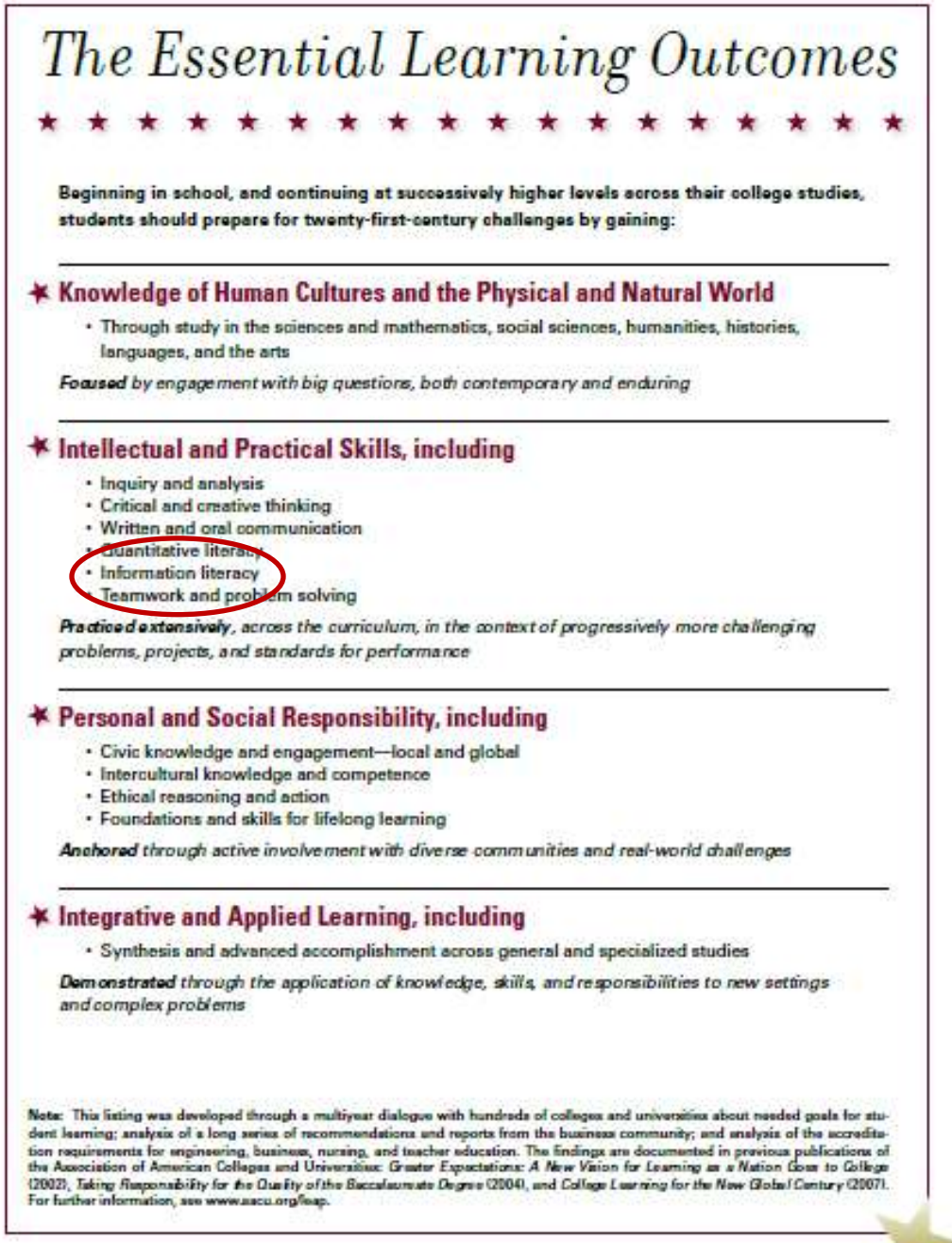
AALHE Association for the Assessment of Learning in Higher Education

AAC&U Association of American Colleges and Universities

Assessing Outcomes Taught & Learned Across the Academy

- Students learn “essential learning outcomes” in many academic courses, majors, and programs as well as outside the classroom, during co-curricular experiences, and at the library.

  “Curricular and Co-curricular Collaborations to Facilitate General Education Outcomes,” *New Leadership Alliance Newsletter*, Feb 2012
  http://www.newleadershipalliance.org/newsletter/issue/february_2012/#perspectives_and_practice5?utm_source=February+2012+Newsletter&utm_campaign=February+Newsletter&utm_medium=email



The Essential Learning Outcomes

Beginning in school, and continuing at successively higher levels across their college studies, students should prepare for twenty-first-century challenges by gaining:

Knowledge of Human Cultures and the Physical and Natural World

- Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

Focused *by engagement with big questions, both contemporary and enduring*

Intellectual and Practical Skills, including

- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Quantitative literacy
- Information literacy
- Teamwork and problem solving

Practiced extensively, *across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance*

Personal and Social Responsibility, including

- Civic knowledge and engagement—local and global
- Intercultural knowledge and competence
- Ethical reasoning and action
- Foundations and skills for lifelong learning

Anchored *through active involvement with diverse communities and real-world challenges*

Integrative and Applied Learning, including

- Synthesis and advanced accomplishment across general and specialized studies

Demonstrated *through the application of knowledge, skills, and responsibilities to new settings and complex problems*

Note: This listing was developed through a multiyear dialogue with hundreds of colleges and universities about needed goals for student learning; analysis of a long series of recommendations and reports from the business community; and analysis of the accreditation requirements for engineering, business, nursing, and teacher education. The findings are documented in previous publications of the Association of American Colleges and Universities: *Greater Expectations: A New Vision for Learning as a Nation Goes to College* (2002), *Taking Responsibility for the Quality of the Baccalaureate Degree* (2004), and *College Learning for the New Global Century* (2007). For further information, see www.aacu.org/leap.

LEAP

Essential Learning Outcomes

Almost 60% of campuses have information literacy/fluency as a general education outcome.

Ewell, Peter, and Jane Wellman. "Enhancing Student Success in Education: Summary Report of the NPEC Initiative and National Symposium on Postsecondary Student Success." 2007.

The information literate/fluent student…

- **Determines** the nature and extent of **information needed**.
- **Accesses** needed information effectively and efficiently.
- **Evaluates** information and its sources critically.
- **Uses** information effectively to accomplish a specific purpose.
- Accesses and uses information **ethically and legally**.

A rose by any other name…

http://meganoakleaf.info/lqfigure1.docx

ACRL Information Literacy Competency Standards for Higher Education	AAC&U Essential Learning Outcomes	AAC&U VALUE Rubrics	ISTE National Educational Technology Standards for Students	NCTE 21st Century Literacies and Curriculum Framework	Partnership for 21st Century Skills	AASL Standards for the 21st Century Learner	Common Core State "College and Career Readiness" Standards
Standard 1. The information literate student determines the nature and extent of the information needed.	Inquiry and Analysis, Problem Solving	Inquiry and Analysis - Identifies a creative, focused, and manageable topic that addresses potentially significant yet previously less-explored aspects of the topic. Critical Thinking - Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding. Problem Solving - Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors.	Students plan strategies to guide inquiry; students identify and define authentic problems and significant questions for investigation; students plan and manage activities to develop a solution or complete a project.	Students use inquiry to ask questions and solve problems.	Identify and ask significant questions that clarify various points of view and lead to better solutions (Learning and Innovation Skills).	1.1.3 Develop and refine a range of questions to frame the search for new understanding. 1.2.1 Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts.	Writing Standard 7. Perform short, focused research projects as well as more sustained research in response to a focused research question, demonstrating understanding of the material under investigation.
Standard 2. The information literate student accesses needed information effectively and efficiently.	Inquiry and Analysis, Problem Solving	Creative Thinking - Not only develops a logical, consistent plan to solve problem, but recognizes consequences of solution and can articulate reason for choosing solution.	Students collect and analyze data to identify solutions and/or make informed decisions; students understand and use technology systems; students select and use applications effectively and productively.	Twenty-first century readers and writers need to manage, analyze, and synthesize multiple streams of simultaneous information; students find relevant and reliable sources that meet their needs; students locate information from a variety of sources.	Access information efficiently (time) and effectively (sources); manage the flow of information from a wide variety of sources (Information, Media, and Technology Skills).	1.1.4 Find, evaluate, and select appropriate sources to answer questions. 1.1.8 Demonstrate mastery of technology tools for accessing information and pursuing inquiry. 1.2.5 Demonstrate adaptability by changing the inquiry focus, questions, resources, or strategies when necessary to achieve success. 1.2.6 Display emotional	Writing Standard 8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate and cite the information while avoiding plagiarism.


Oh my god! Today's comic is about breathing oxygen! THAT'S WHAT I BREATHE!

Assessing Outcomes Taught & Learned Across the Academy

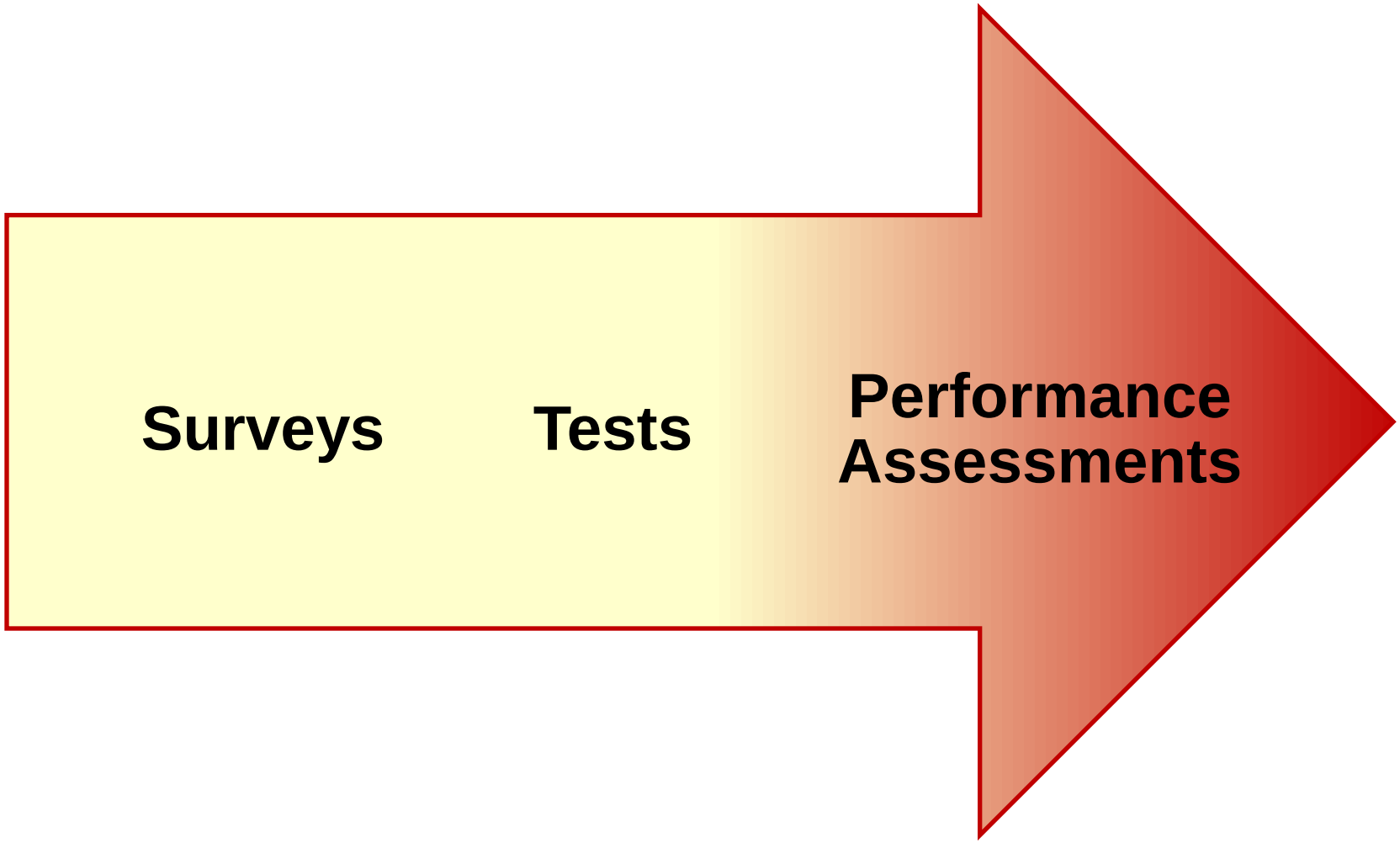
- Students learn “essential learning outcomes” in many academic courses, majors, and programs as well as outside the classroom, during co-curricular experiences, and at the library.
- But…
  - We don’t talk about them the same ways.
  - We don’t teach them the same ways.
  - We don’t assess them the same ways.
- Lack of intentional and transparent alignment presents problems for teaching, learning, and assessing outcomes.

The Need

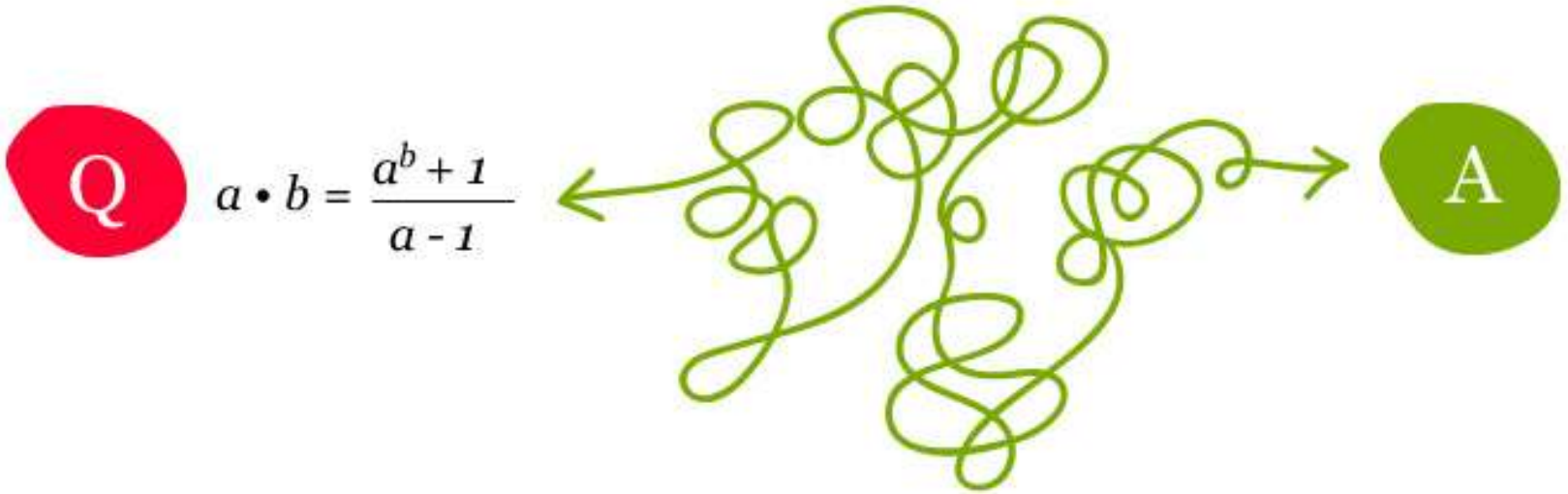
Librarians, faculty, and co-curricular professionals need to be able to determine whether students acquire, use, and transfer information literacy skills.

- May need to change/improve learning opportunities
- May need to demonstrate instructional effectiveness
- May want to celebrate successful learning

Other Information Literacy Assessment Approaches

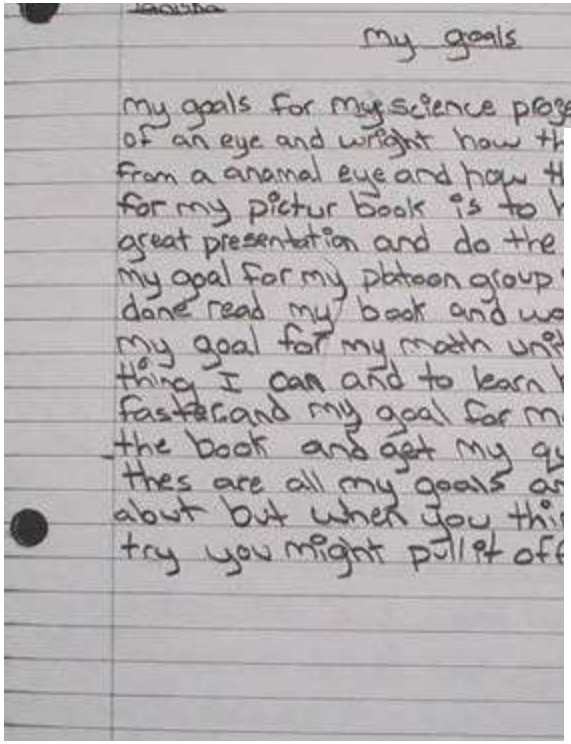


Learning Activities



Product vs. Process

http://www.nipissingu.ca/oar/images/archive-V912E_image006.jpg



Annotated Bibliography Entry

Source Type:

☐ reference book ☐ website ☐ popular magazine article ☐ dissertation
☐ book ☐ interview X scholarly journal article ☐ gov't document
☐ other: _____

Full MLA citation:

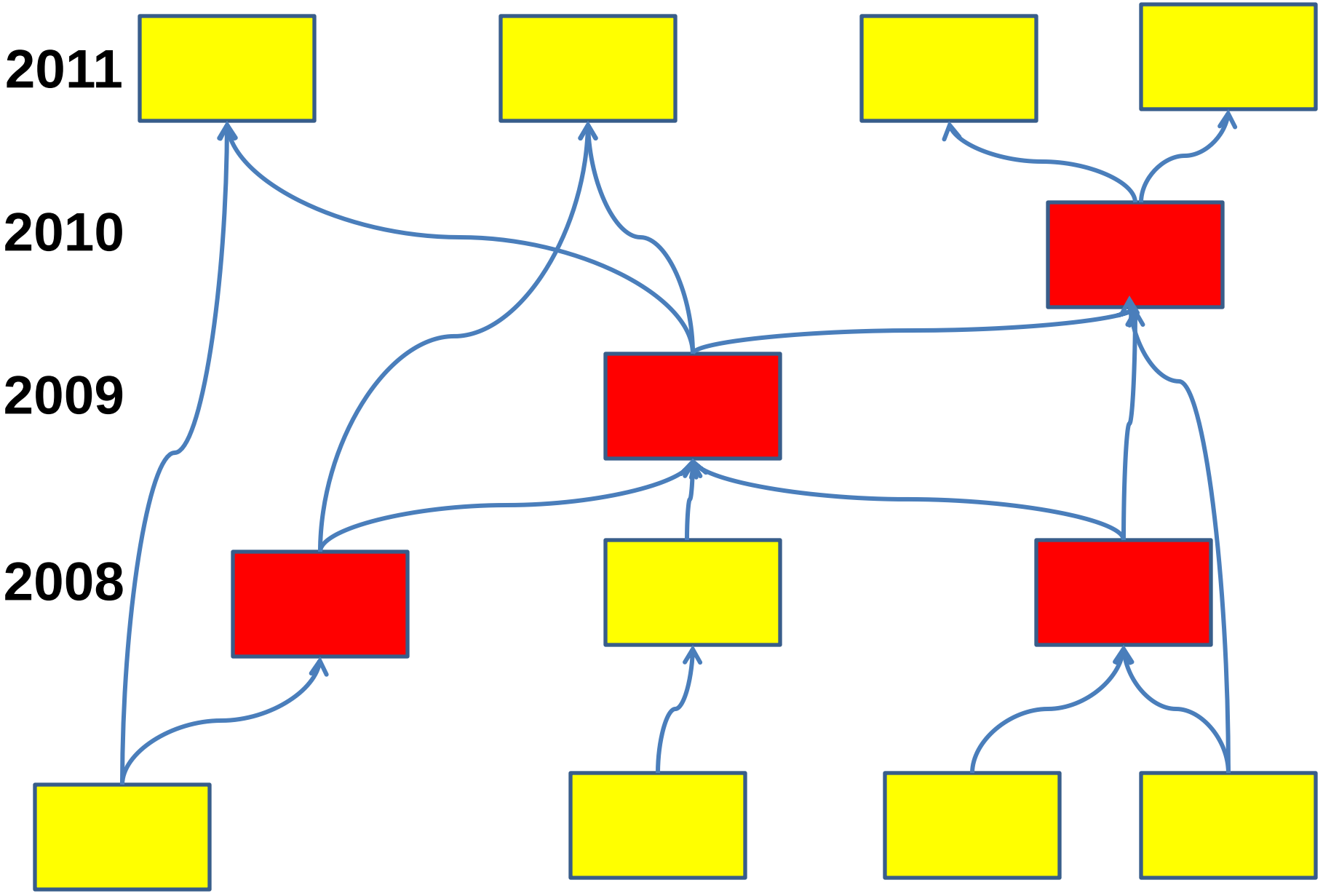
Gustafsson, PA et al. "Breastfeeding, Very Long Polyunsaturated Fatty Acids (PUFA) and IQ at 6 1/2 Years of Age." Acta Pædiatr 93.10 (2004): 1280-1287.

Brief summary & critical analysis of content:

This article both hypothesizes and experimentally proves that the effects of breastfeeding on IQ are related to the composition of polyunsaturated fatty acids (PUFAs) in human milk. The article states that fatty acids are essential structural elements that are required by cell membranes, for the formation of new tissue, and for the formation of neurons and glial cells. The formation of neurons and glial cells occurs during the fetal period of pregnancy, and a lack a the necessary fatty acids couldbe detrimental to proper formation of the central nervous system due to the fact that such fatty acids must be acquired through food intake and cannot be synthesized in the body. Additionally, it has been proven that PUFAs are protectors of the tissue within the nervous system, by making them less fragile and less easily damaged. Furthermore, PUFAs aid in the release of acetylcholine and noradrenaline, which are neurotransmitters that strongly affect learning and memory. After illustrating the overall importance of PUFAs to cognitive development, the article went on to depict the relationship between the levels of PUFAs in the breast milk of the mother and in the infant. Tests prove that PUFA levels in the mother's breast milk are similar to the levels that exist in the infant's brain tissue. It has also been clinically found that higher levels of PUFAs exist in breastfed children than children who were fed by bottle formula. Since the composition of the PUFAs is important, the article notes that the variety of fatty acids present in breast milk is much greater than it is in infant formulas. The article also points out that the most important long chain PUFA involved with cognitive development is the n-3 docosahexaenoic acid (DHA). The main results of the scientific studies of this article are that there is a significant correlation between an infant's IQ and the length of time that was spent breastfeeding the child, that the fourth and fifth steps of PUFA biosynthesis are strongly correlated to an infant's IQ, and that the amount of DHA in the breast milk positively affects cognitive development. The nutritional information that this article provides is critical to the research topic because it begins to provide the answers to why the nutrition of breast milk is beneficial to cognitive development. It provides information that is pertinent to the topic and provides answers that the website article could not; the article indulges information and focuses primarily on the nutritional aspect of breastfeeding. It is clear that further research needs to be done in order to discover why DHA, specifically, is the most beneficial nutritional aspect of breast milk. It is also necessary to continue to research the importance of breast milk nutrition; there may be other factors that are beneficial to cognitive development that this article did not discuss. Additionally, it is still necessary to find more research on why the nurture aspect of breastfeeding is so helpful to cognitive development.

Evaluation of source using criteria & rationale for selection:

Author: PA Gustaffson is a distinguished researcher who has written various other scientific articles including *Asthma and Family Interaction* and *Family Dysfunction in Asthma: Results from a prospective study of the development of childhood atopic illness*. Gustaffson is associated with the Division of Child and Adolescent Psychiatry, the Department of Molecular and Clinical Medicine, and University Hospital in Linköpink, Sweden. Thus, although the aforementioned articles center around asthma, Gustaffson is a trained professional in the medical and health fields, does lots of research associated with children, and has a history in the field of psychiatry, and can be considered a very credible source for this article. Furthermore, the last cited author, T Karlsson, is highly knowledgeable in Engineering Science. Karlsson has his Bachelor of Science degree in Automation and his


2011
2010
2009
2008

• research journals • reflective writing • “think alouds” • self or peer evaluations • research drafts or papers • open-ended question responses • works cited pages • annotated bibliographies • speeches • multimedia presentations • posters • exhibits	• group projects • performances • portfolios • library assignments • worksheets • concept maps • citation maps • tutorial responses • role plays • lab reports • blogs • wikis

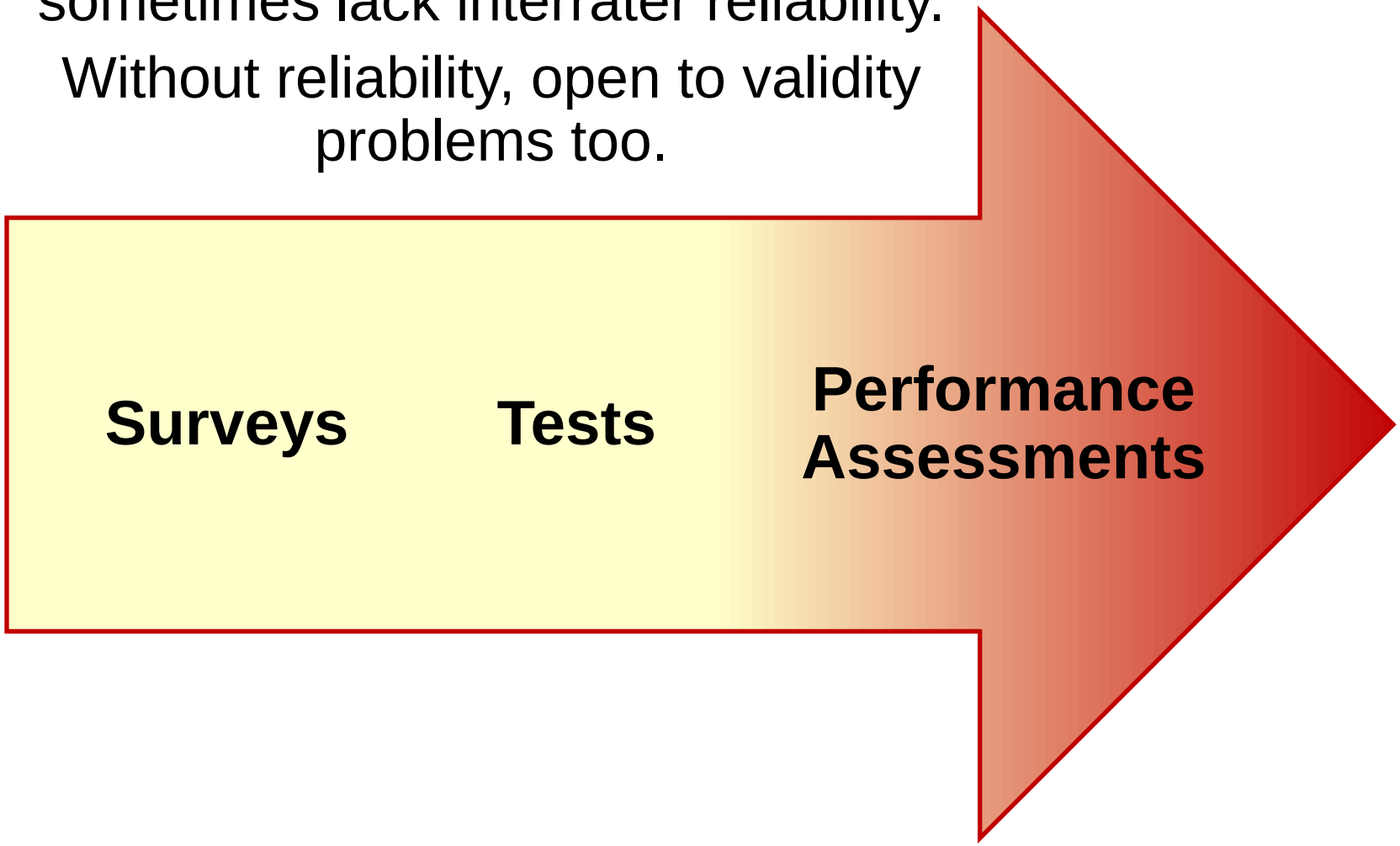
What are good artifacts to capture performance?

Oakleaf, Megan. "Writing Information Literacy Assessment Plans: A Guide to Best Practice." *Communications in Information Literacy*. 3(2). 2010.

Without rubrics,

performance assessments sometimes lack interrater reliability.

Without reliability, open to validity problems too.



VALUE: Valid Assessment of Learning in Undergraduate Education

RESOURCES ON:

LIBERAL EDUCATION
GENERAL EDUCATION
CURRICULUM
FACULTY WORK
STUDENT SUCCESS
INSTITUTIONAL AND SYSTEMIC CHANGE
ASSESSMENT
DIVERSITY AND INCLUSIVE EXCELLENCE
CIVIC LEARNING
WOMEN
GLOBAL LEARNING
SCIENCE & HEALTH
STEM: PROJECT KALEIDOSCOPE

CONNECT WITH AAC&U:

VALUE Rubrics

Would you like to download the VALUE Rubrics?
Enter your email & click submit. After filling out some brief, one-time information, you can download all fifteen VALUE Rubrics!

Enter an Email Address :

Submit

As part of the VALUE project, teams of faculty and other academic and student affairs professionals engaged in an iterative process over eighteen months wherein they gathered, analyzed, synthesized, and then drafted institutional level rubrics (and related materials) for 15 of the AAC&U Essential Learning Outcomes, creating the set of VALUE rubrics that appears below. The rubric development teams relied on existing campus rubrics when available, other organizational statements on outcomes, experts in the respective fields and faculty feedback from campuses throughout the process. Each VALUE rubric contains the most common and broadly shared criteria or core characteristics considered critical for judging the quality of student work in that outcome area.

LINKS

About the Project:
Overview
Project Description
Project Outcomes
Publications
Download Rubrics
About Rubrics
Rubric Permissions

Participation:
Advisory Board
Leadership Campuses
Partner Campuses
Rubric Teams

Staff

Purposes of VALUE Rubrics

- Integrate assessment & learning
- Assess student learning in context, authentically, focusing on performance of outcomes
- Elevate expert judgments of student learning over tests
- Provide basis for discussion and comparison over time or across programs

VALUE Rubric for Information Literacy	Capstone 4	Milestones 3	2	Benchmark 1
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 modifiers are open to broad interpretation
  - Specific details needed for scoring student work omitted

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

VALUE Rubric for Information Literacy	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
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

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

participant login

rails
rubric assessment of information literacy skills

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!

www.railsontrack.info

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.

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

rails

We want to learn…

- How can rubric assessment be used to improve IL teaching & learning, as well as library services?
- Can librarians & 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?

rails

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+ x 5 = 500+) and raters (10 x 5 = 50).
- PI visited each campus to lead rubric revision, norming, scoring.
- Analysis completed.

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.

Institution #1	Advanced	Developing	Beginning
Determines Key Concepts	Student determines keywords/subject/subheadings that fully describe the research question/thesis. ***Students rated as Advanced: 44%***	Student determines keywords/subject /subheadings that partially describe the research question/thesis. ***Students rated as Developing: 50%***	Student does not determine keywords/subject /subheadings that describe the research question/thesis. ***Students rated as Beginning: 6%***
Accesses the Needed Information	Student accesses information using a logical progression of advanced search strategies such as limits, Boolean searches, or combined searches. ***Students rated as Advanced: 27%***	Student accesses information using advanced search strategies, such as limits, Boolean searches, or combined searches. ***Students rated as Developing: 62%***	Student accesses information using only simple search strategies. ***Students rated as Beginning: 11%***
Retrieves Relevant Information	Student retrieves information sources that fully fit search parameters and relate to concepts. ***Students rated as Advanced: 37%***	Student retrieves information sources that partially fit search parameters or relate to concepts. ***Students rated as Developing: 53%***	Student does not retrieve information sources that either fit search parameters or relates to concepts. ***Students rated as Beginning: 10%***

Institution #2	Accomplished	Developing	Inadequate
Evaluates Authority	Student shows sufficient evidence of the author's credentials and qualifications. *Students rated as Accomplished: 46%*	Student briefly identifies the author's credentials and qualifications. *Students rated as Developing: 35%*	Student does not identify the author's credentials or qualifications. *Students rated as Inadequate: 19%*
Evaluates Currency	Student comments on the source's publication year and retrieves the source that is published within the last five years. *Students rated as Accomplished: 68%*	Student either comments on the source's publication year or retrieves a source that is published in the last five years, but does not do both. *Students rated as Developing: 26%*	Student does not comment on the source's publication year and does not retrieve a source that is published in the last five years. *Students rated as Inadequate: 6%*
Evaluates Reliability	Student shows adequate evidence of whether or not the source is trustworthy. *Students rated as Accomplished: 23%*	Student shows superficial evidence of whether or not the source is trustworthy. *Students rated as Developing: 53%*	Student does not show evidence of whether or not the source is trustworthy. *Students rated as Inadequate: 24%*
Evaluates Accuracy	Student provides a thorough explanation of the accuracy of the source. *Students rated as Accomplished: 21%*	Student provides superficial explanation of the accuracy of the source. *Students rated as Developing: 51%*	Student does not explain the accuracy of the source. *Students rated as Inadequate: 28%*
Evaluates Perspective	Student identifies the author's point of view in detail. *Students rated as Accomplished: 27%*	Student briefly identifies the author's point of view. *Students rated as Developing: 53%*	Student does not identify the author's point of view. *Students rated as Inadequate: 20%*
Evaluates Reflection of Source	Student explains in detail how the source contributes to his/her knowledge. *Students rated as Accomplished: 29%*	Student identifies how the source contributes to his/her knowledge. *Students rated as Developing: 51%*	Student does not identify how the source contributes to his/her knowledge. *Students rated as Inadequate: 20%*
Access the Needed Information	Student accesses information using effective, well-designed search strategies. *Students rated as Accomplished: 27%*	Student accesses information using simple strategies, including both search term(s) and tool(s). *Students rated as Developing: 53%*	Student does not specify strategy with both search term(s) and tool(s). *Students rated as Inadequate: 20%*

Institution #3	3	2	1
Organizes Content **Are the sources in the right places?**	Consistently organizes cited information in a manner that supports the purposes and format of the product/performance. ***Students rated as 3: 35%***	Inconsistently organizes cited information in a manner that supports the purposes and format of the product/performance. ***Students rated as 2: 45%***	Does not organize cited information in a manner that supports the purposes and format of the product/performance. ***Students rated as 1: 20%***
Synthesizes New and Prior Information **Do the sources help to support new claims or make points?**	Consistently connects new and prior information to create a product/performance. ***Students rated as 3: 27%***	Inconsistently connects new and prior information to create a product/performance. ***Students rated as 2: 48%***	Does not connect new and prior knowledge to create a product/performance. ***Students rated as 1: 25%***
Communicates Information **Do they have sources?**	Consistently communicates information from sources via products/performances. ***Students rated as 3: 37%***	Inconsistently communicates information from sources via products/performances. ***Students rated as 2: 50%***	Does not communicate information from sources via products/performances. ***Students rated as 1: 13%***

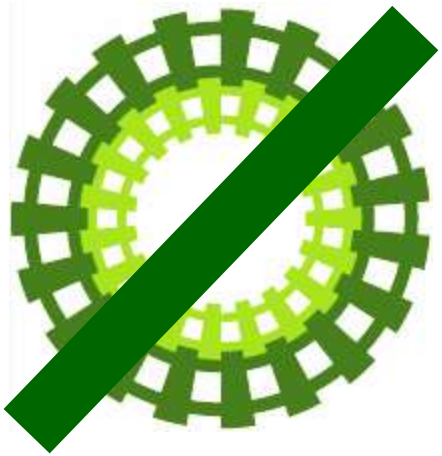
Institution #4	Advanced *Applies outcome successfully; Many strengths are present*	Developing *Shows skill in this outcome; Improvement needed*	Beginning *Evidence of the outcome may be minimally or not at all present; Need for improvement outweighs apparent strengths*
Style conventions	Follows style guide conventions with few errors. ***Students rated as Advanced: 22%***	Follows style guide conventions with frequent errors. ***Students rated as Developing: 65%***	Does not follow style guide conventions. ***Students rated as Beginning: 13%***
Correspondence of bibliography and in-text citations	Bibliography and in-text citations correspond. ***Students rated as Advanced: 39%***	Bibliography and in-text citations do not correspond. ***Students rated as Developing: 53%***	Does not include a functional bibliography and/or in-text citations. ***Students rated as Beginning: 8%***
Common knowledge and attribution of ideas	Consistently distinguishes between common knowledge and ideas requiring attribution. ***Students rated as Advanced: 33%***	Inconsistently distinguishes between common knowledge and ideas requiring attribution. ***Students rated as Developing: 59%***	Does not distinguish between common knowledge and ideas requiring attribution. ***Students rated as Beginning: 8%***
Paraphrasing, summarizing, quoting	Summarizes, paraphrases, or quotes in order to integrate the work of others into their own. ***Students rated as Advanced: 43%***	Summarizes, paraphrases, or quotes, but does not always select appropriate method for integrating the work of others into their own. ***Students rated as Developing: 53%***	Does not summarize, paraphrase, or quote in order to integrate the work of others into their own. ***Students rated as Beginning: 4%***

	Advanced	Developing	Beginning
Style conventions	Follows style guide conventions with few errors. **22%**	Follows style guide conventions with frequent errors. **65%**	Does not follow style guide conventions. **13%**
Correspondence of bibliography and in-text citations	Bibliography and in-text citations correspond. **39%**	Bibliography and in-text citations do not correspond. **53%**	Does not include a functional bibliography and/or in-text citations. **8%**
Common knowledge and attribution of ideas	Consistently distinguishes between common knowledge and ideas requiring attribution. **33%**	Inconsistently distinguishes between common knowledge and ideas requiring attribution. **59%**	Does not distinguish between common knowledge and ideas requiring attribution. **8%**
Paraphrasing, summarizing, quoting	Summarizes, paraphrases, or quotes in order to integrate the work of others into their own. **43%**	Summarizes, paraphrases, or quotes, but does not always select appropriate method for integrating the work of others into their own. **53%**	Does not summarize, paraphrase, or quote in order to integrate the work of others into their own. **4%**

Institution #5	Advanced	Developing	Beginning
Access the Needed Information	Student: • 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. *Students rated as Advanced: 51%*	Student: • Searches and locates websites or journal articles using simple search strategies demonstrated. • Finds information with partial relevance and quality for assignment. *Students rated as Developing: 41%*	Student: • Accesses websites or journal articles randomly. • Does not apply new techniques demonstrated. • Retrieves information that lacks relevance and quality for assignment. *Students rated as Beginning: 9%*
Use Information Ethically and Legally	Student: • Follows style guide conventions correctly. • Citations are mostly complete and accurate. *Students rated as Advanced: 41%*	Student: • Follows style guide conventions with errors. • Citations have partially correct information. *Students rated as Developing: 48%*	Student: • Does not follow style guide conventions. • Citations are not included. *Students rated as Beginning: 11%*
Evaluate Information and its Sources Critically	Student: • 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. *Students rated as Advanced: 48%*	Student: • 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. *Students rated as Developing: 39%*	Student: • Does not apply the evaluation criteria provided or uses only 1 of 5. • Provides no rationale for selecting sources for analysis. *Students rated as Beginning: 13%*

Barriers

- Top barriers cited:
  - Lack of time
  - Lack of coordinated structures for assessment
- Also of concern:
  - Insufficient financial resources
  - Lack of staff
  - Assessment role uncertainty
- For colleagues:
  - Lack of familiarity with rubric assessment in general
  - Lack of rewards for participating in assessment activities



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.

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.

Logistical Lessons

- Disorganized deployment of rubric rating activities (including but not limited to norming) damages 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.

Statistical Lessons

- Pearson correlation may be overinflated in these rubric assessment situations because it doesn't correct for chance.
- Cohen's kappa may be overly strict in these situations and works best with a trustworthy gold standard rater…revisiting this approach in 2011-12.
- Krippendorff's alpha appears to be a good middle ground…

Institution #2	Accomplished	Developing	Inadequate
Evaluates Authority	Student shows sufficient evidence of the author's credentials and qualifications. *Students rated as Accomplished: 46%*	Student briefly identifies the author's credentials and qualifications. *Students rated as Developing: 35%*	Student does not identify the author's credentials or qualifications. *Students rated as Inadequate: 19%*
Evaluates Currency	Student comments on the source's publication year and retrieves the source that is published within the last five years. *Students rated as Accomplished: 68%*	Student either comments on the source's publication year or retrieves a source that is published in the last five years, but does not do both. *Students rated as Developing: 26%*	Student does not comment on the source's publication year and does not retrieve a source that is published in the last five years. *Students rated as Inadequate: 6%*
Evaluates Reliability	Student shows adequate evidence of whether or not the source is trustworthy. *Students rated as Accomplished: 23%*	Student shows superficial evidence of whether or not the source is trustworthy. *Students rated as Developing: 53%*	Student does not show evidence of whether or not the source is trustworthy. *Students rated as Inadequate: 24%*
Evaluates Accuracy	Student provides a thorough explanation of the accuracy of the source. *Students rated as Accomplished: 21%*	Student provides superficial explanation of the accuracy of the source. *Students rated as Developing: 51%*	Student does not explain the accuracy of the source. *Students rated as Inadequate: 28%*
Evaluates Perspective	Student identifies the author's point of view in detail. *Students rated as Accomplished: 27%*	Student briefly identifies the author's point of view. *Students rated as Developing: 53%*	Student does not identify the author's point of view. *Students rated as Inadequate: 20%*
Evaluates Reflection of Source	Student explains in detail how the source contributes to his/her knowledge. *Students rated as Accomplished: 29%*	Student identifies how the source contributes to his/her knowledge. *Students rated as Developing: 51%*	Student does not identify how the source contributes to his/her knowledge. *Students rated as Inadequate: 20%*
Access the Needed Information	Student accesses information using effective, well-designed search strategies. *Students rated as Accomplished: 27%*	Student accesses information using simple strategies, including both search term(s) and tool(s). *Students rated as Developing: 53%*	Student does not specify strategy with both search term(s) and tool(s). *Students rated as Inadequate: 20%*

Institution #2 Statistics

Summary of Mean Pearson's Correlation

Criterion	Librarians(1)	Faculty(2)	All judges
1 (124035)	.729	.731	.728
2 (124036)	.701	.767	.750
3 (124037)	.311	.415	.373
4 (124038)	.335	.418	.377
5 (124039)	.286	.382	.350
6 (124040)	.460	.508	.484
7 (124041)	.608	.672	.637
Total	.685	.756	.725

	Krippendorff's Alpha		
criterion	All judges	Librarians(1)	Faculty(2)
1 (124035)	.6679	.6653	.6772
2 (124036)	.7532	.7162	.7646
3 (124037)	.3185	.2363	.3813
4 (124038)	.2828	.2273	.3461
5 (124039)	.2814	.1521	.3349
6 (124040)	.4306	.4047	.4364
7 (124041)	.5661	.5272	.5840
Total score	.6361	.5817	.6571

Institution #1	Advanced	Developing	Beginning
Determines Key Concepts	Student determines keywords/subject/subheadings that fully describe the research question/thesis. ***Students rated as Advanced: 44%***	Student determines keywords/subject /subheadings that partially describe the research question/thesis. ***Students rated as Developing: 50%***	Student does not determine keywords/subject /subheadings that describe the research question/thesis. ***Students rated as Beginning: 6%***
Accesses the Needed Information	Student accesses information using a logical progression of advanced search strategies such as limits, Boolean searches, or combined searches. ***Students rated as Advanced: 27%***	Student accesses information using advanced search strategies, such as limits, Boolean searches, or combined searches. ***Students rated as Developing: 62%***	Student accesses information using only simple search strategies. ***Students rated as Beginning: 11%***
Retrieves Relevant Information	Student retrieves information sources that fully fit search parameters and relate to concepts. ***Students rated as Advanced: 37%***	Student retrieves information sources that partially fit search parameters or relate to concepts. ***Students rated as Developing: 53%***	Student does not retrieve information sources that either fit search parameters or relates to concepts. ***Students rated as Beginning: 10%***

Institution #1 Statistics

Summary of Pearson's correlation

Score	Librarian	Faculty	All judges
Criterion 1 (124032)	.546	.419	.429
Criterion 2 (124033)	.474	.325	.374
Criterion 3 (124034)	.550	.393	.456
Total	.658	.519	.562

Summary of Krippendorff's Alpha

Score	Librarian	Faculty	All judges
Criterion 1 (124032)	.5270	.2764	.3556
Criterion 2 (124033)	.4748	.2335	.3188
Criterion 3 (124034)	.5089	.3225	.4060
Total	.6235	.3494	.4631

“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***.

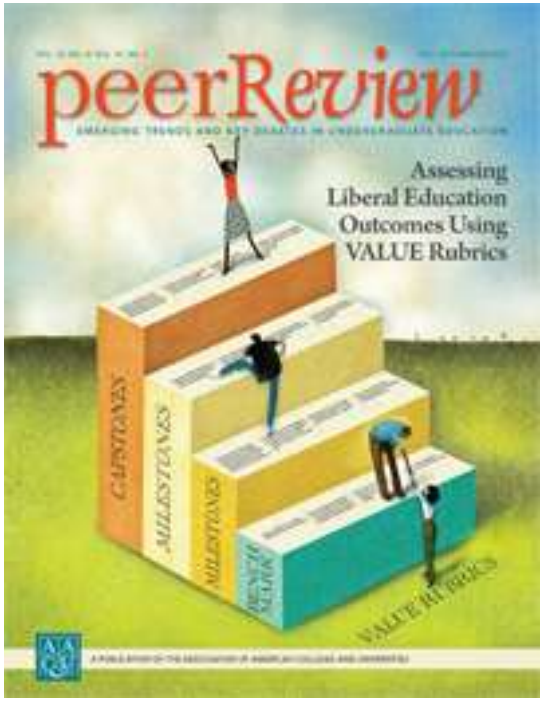
- RAILS "changed the way I teach…[the teaching] session has more structure, and the students seemed much more engaged." [I1]
- Student comment about changed instruction: "The day that we went as a class to the library…was probably one of the most beneficial days of my semester." [I1]
- Faculty feedback: "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]
- "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]
- "RAILS has enabled us to put systems and procedures in place that we will draw on for all subsequent assessment efforts!" [I4]

And more…

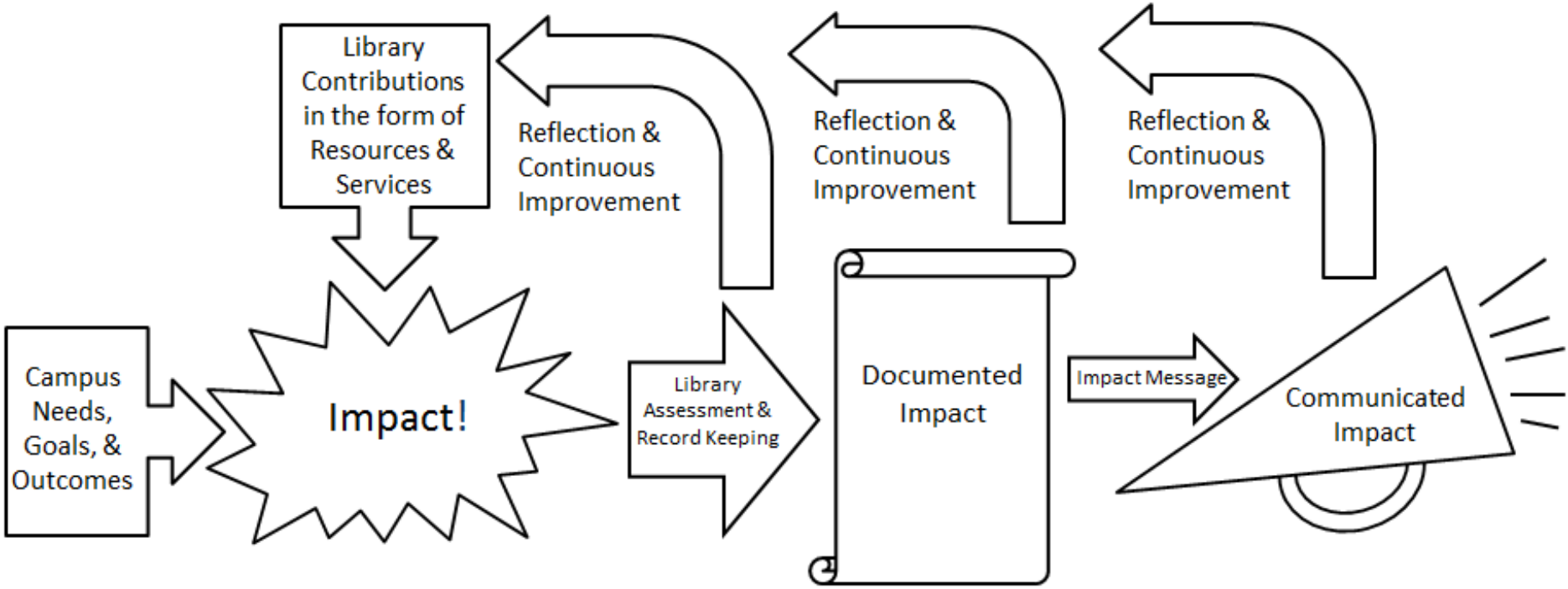
- 5 of 5 are disseminating results via publications/presentations locally and nationally.
- 3 of 5 document more collaboration with institutional colleagues (faculty, staff, administration, co-curricular professionals).
- 2 of 5 are developing add-on research projects.



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

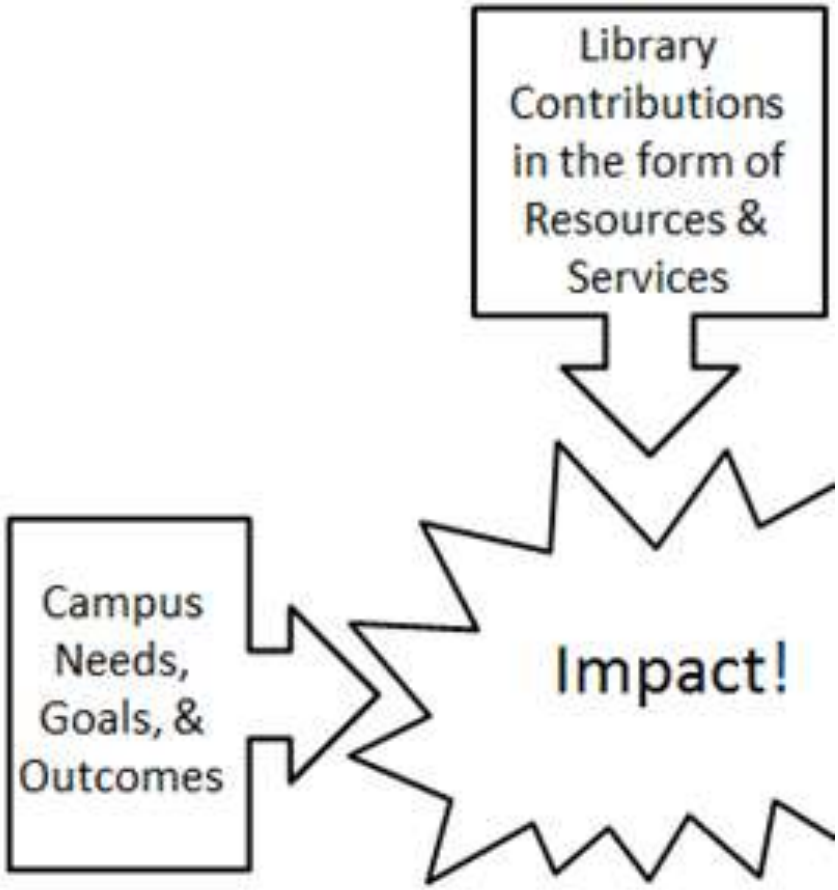
What does this have to do with academic library value?



Adapted from: Oakleaf, Megan. "Are They Learning? Are We? Learning and the Academic Library." *Library Quarterly*. 81(1). 2011.

Principles of Excellence

- Academic success & completion.
- Access & affordability.
- Innovative teaching.
- Expand intercampus collaboration.



State of the University Address

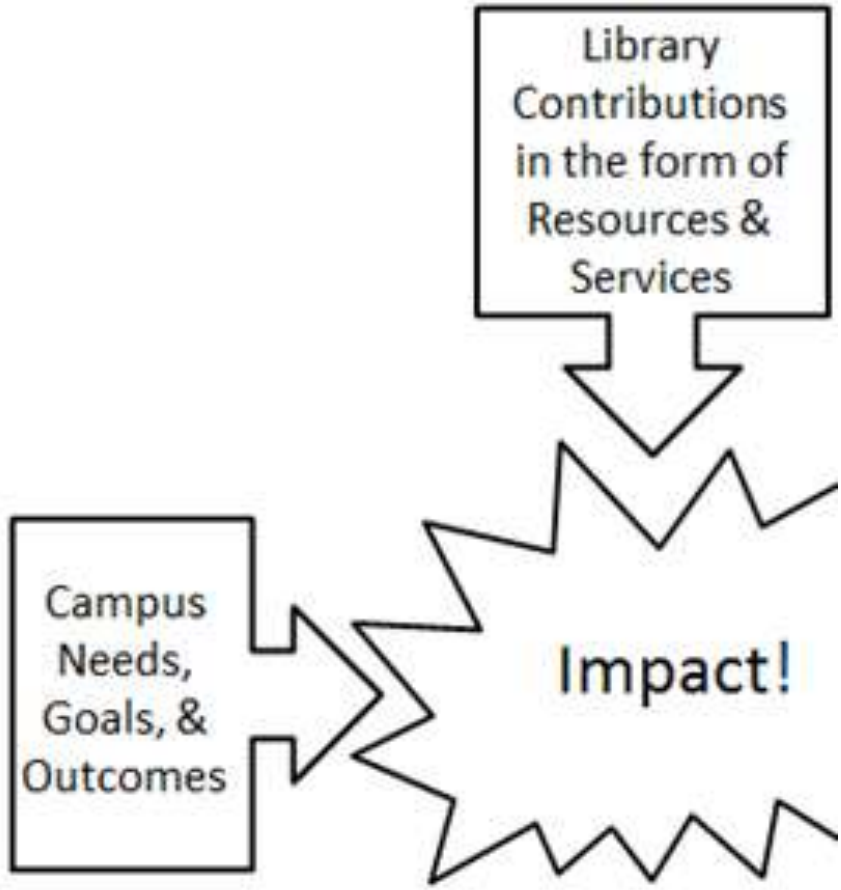
President McRobbie, Sept 2011

- “Fundamental beliefs: beliefs in open debate and scrutiny of ideas, in the power of logic, in scientific reasoning, in deliberative analysis, and in decision-making derived from facts and evidence. These enduring values form the core of the academy. These are the values that I learned when I joined the academy, and these are values that all of us learned and exercise every day as members of this noble profession.”
- Efficiencies (do more with less)
- Affordability
- Role in the life of the state
- Vying for best faculty, best students, research funding

New Academic Directions
Final Report

Recommendation 3:

IU must reduce barriers and encourage innovative alignments among academic units.



participant login

rails
rubric assessment of information literacy skills

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!

www.railsontrack.info

Rubric Categories

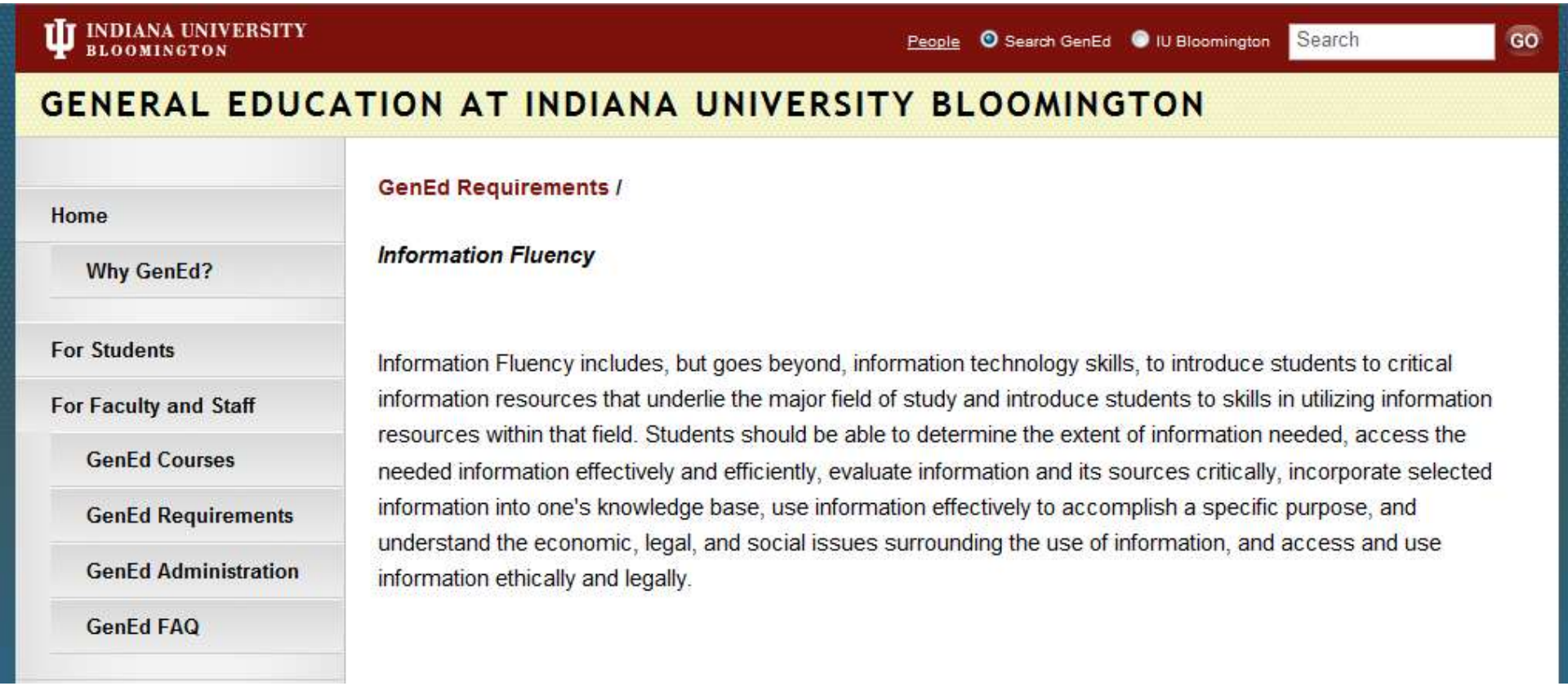
- General
- Define Information Needs
- Evaluate Information
- Locate Information
- Non-Instructional Library Services
- RAILS Cohort 2010-2011
- Trinity University
- University of Kentucky

Learning Outcomes

- Departmental outcomes
- Program outcomes
- Course outcomes
- Co-curricular outcomes

“Shared Goals” at IU

“Each degree program should be designed in such a way that students are provided opportunities to experience these additional aspects of an undergraduate education.”



http://gened.iub.edu/requirements/informationfluency.html

Higher Learning Commission

COMMISSION STATEMENT ON GENERAL EDUCATION

By adopting a formal position statement for the Commission, the Board of Trustees explains the premises on which it creates certain policies. Position statements, therefore, amplify the intent of policies and are not policies in and of themselves. Within the position statement, the Board points to relevant policies. Implementation of those policies, therefore, should honor the fundamental intent established by the Board in its formal position statement.

Understanding and appreciating diverse cultures, mastering multiple modes of inquiry, effectively analyzing and communicating information, and recognizing the importance of creativity and values to the human spirit not only allow people to live richer lives but also are a foundation for most careers and for the informed exercise of local, national, and international citizenship. The Commission expects organizations of higher learning to address these important ends, and has embedded this expectation in its Criteria for Accreditation.

Assessing Student Learning Using Analytic Rubrics:

Initial Results of a National Study of Information Literacy Skills

Megan Oakleaf, Brian Winterman

IU SOTL Lecture2012

www.railsontrack.info

www.meganoakleaf.info

Main Library, Indiana University

Selected Readings

www.meganoakleaf.info

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Oakleaf, Megan. “Dangers and Opportunities: A Conceptual Map of Information Literacy Assessment Tools.” *portal: Libraries and the Academy*. 8.3. 2008.

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