Evaluating Research Projects to Measure Information Literacy Outcomes for Lower-Division Writing Students

Writing Program: Tonya Ritola and Terry Terhaar　Institutional Research: Anna Sher
Library: Greg Careaga, Frank Gravier, Kenneth Lyons, Laura McClanathan Meriwether, Deborah A. Murphy

UNIVERSITY OF CALIFORNIA
SANTA CRUZ
UNIVERSITY LIBRARY

Research question

Do Composition 2 students demonstrate Information Literacy proficiencies in their major research projects when supported by a self-paced online tutorial in lieu of in-person IL instruction?

Subjects

In fall 2015, 115 student research projects in four sections of Writing 2 and one section of Core 80B were evaluated. Both courses carry Composition 2 outcomes.

Writing 2 students had taken one or more previous writing courses to satisfy the University's Entry Level Writing Requirement (ELWR) and Composition 1 (C1) requirement. Core 80B students satisfied both ELWR and C1 prior to matriculation.

Class level:

Juniors/Seniors
Freshmen
5%
27%
68%
Sophomore

Previous writing courses:

None
18%
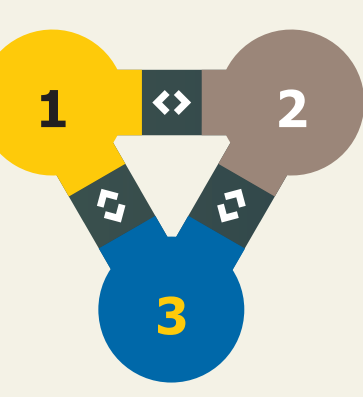36%
46%
2 or more
Core 80A
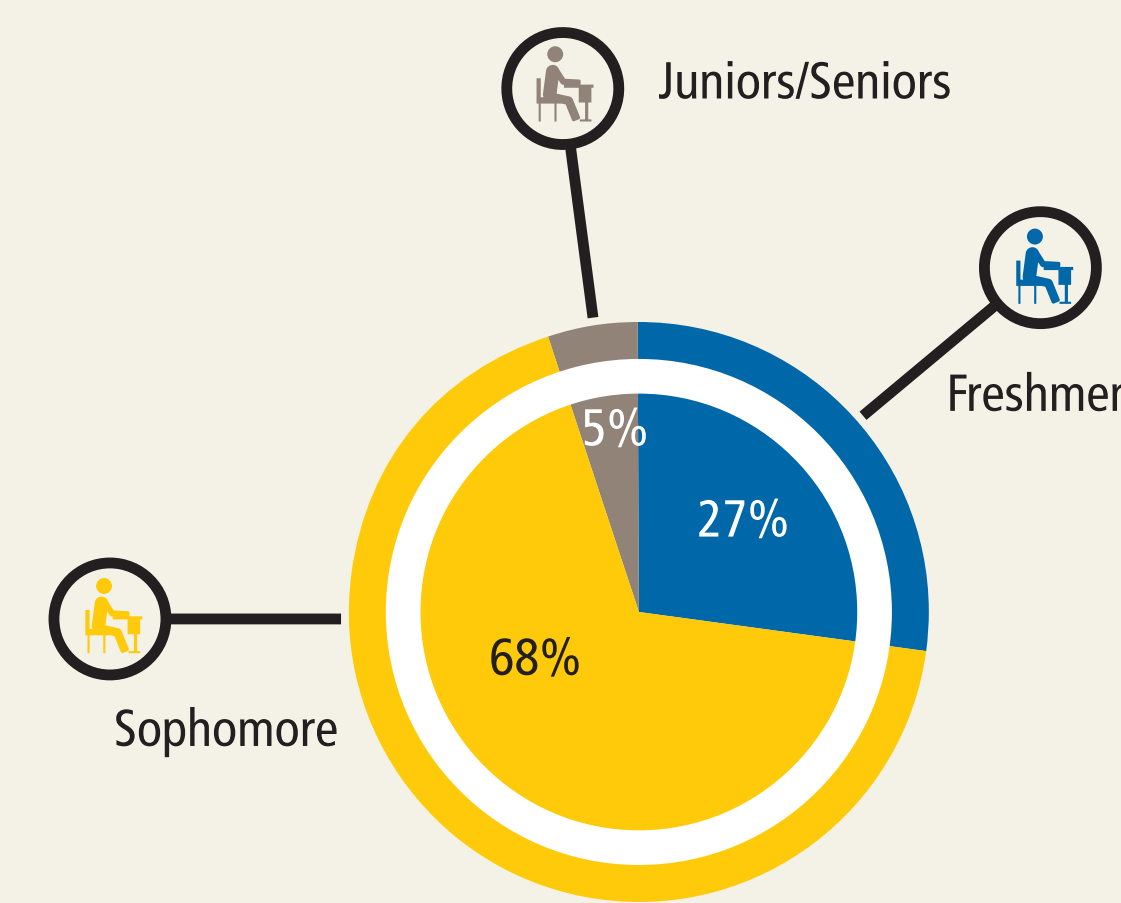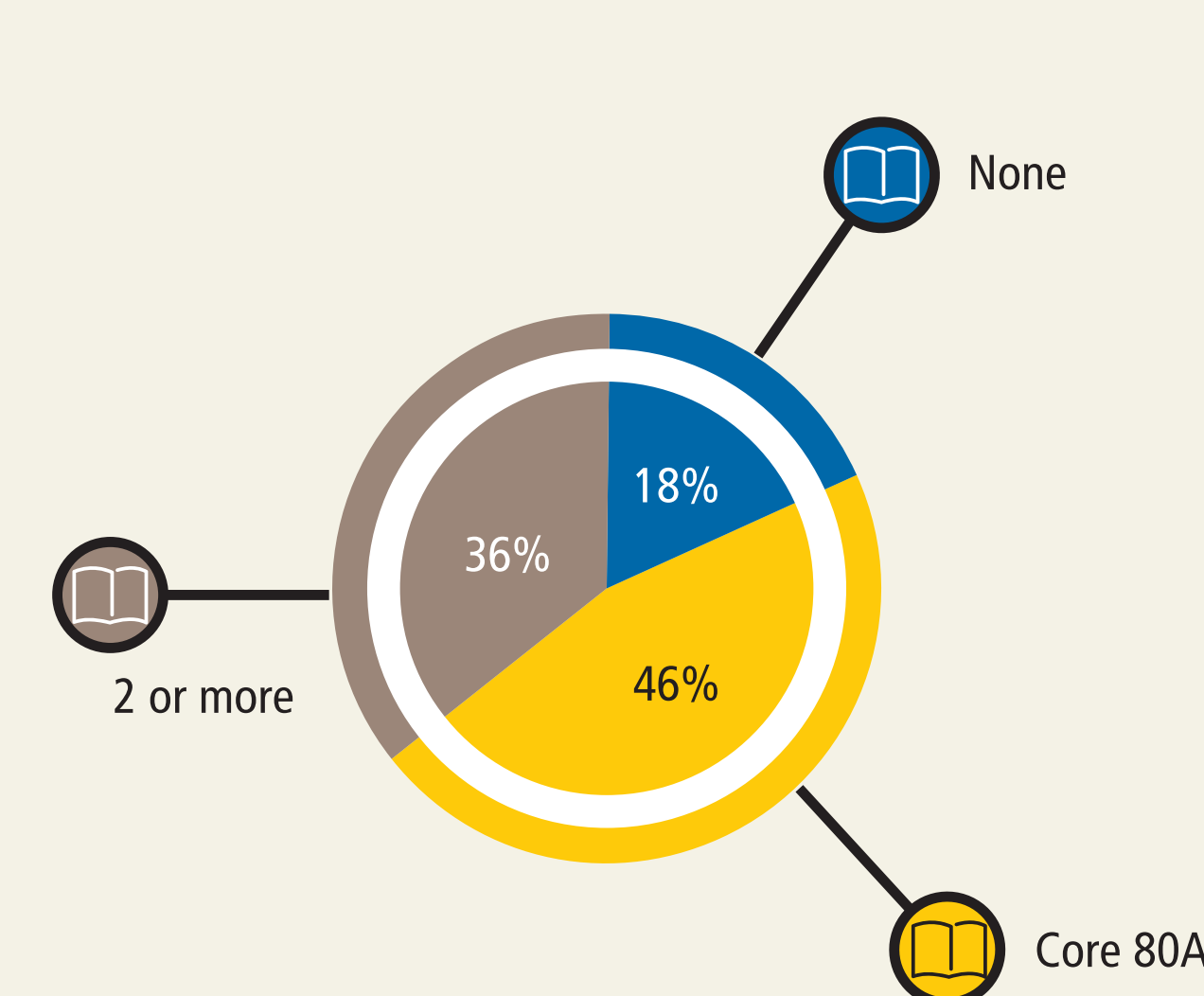
Project partners

Five members of the Library Undergraduate Experience Team
Two Writing Program faculty
Director of Assessment

Data sources

Research process coversheet
Research project bibliography
Tutorial quiz results
Pre/post self-assessment

A common language

Project partners described Information Literacy outcomes in different ways. We used this approach to arrive at a shared understanding of IL and course outcomes and apply them to ACRL Standards.

ACRL IL Definition (Components)	C2 Objectives (Expectations)	C2 Assignment demonstrated skills	Relevant library skills	Learning Outcomes	Tutorial elements
Locate needed information	"Learn methods of research and approaches to using sources… that provide students with the knowledge and confidence to actively participate in the act of inquiry…"	Can locate articles using library databases and online sources (e.g. Academic Search Complete, Google Scholar)	Finding articles: Know: ■ where to search keyword searching ■ how to interpret results	Articles: Use database (ASC) and other sources as required by the instructor to find relevant articles	1. Orientation to ASC 2. Searching ASC - 3. Keywords Revising the search A. Boolean AND B. Boolean OR C. Truncation D. Phrase searching E. Subject searching

Analytic rubric

We developed an analytic rubric across three domains and applied it to each student's research process coversheet and assignment bibliography to measure students' IL proficiencies.

Keywords
K_1: Identifies key concepts
K_2: Identifies keywords, synonyms, and related terms
K_3: Achieves a manageable focus

Resources
R_0: Correctly identifies resources
R_1: Uses database or other relevant Library resources to find articles
R_2: Identifies source by type: scholarly or non-scholarly

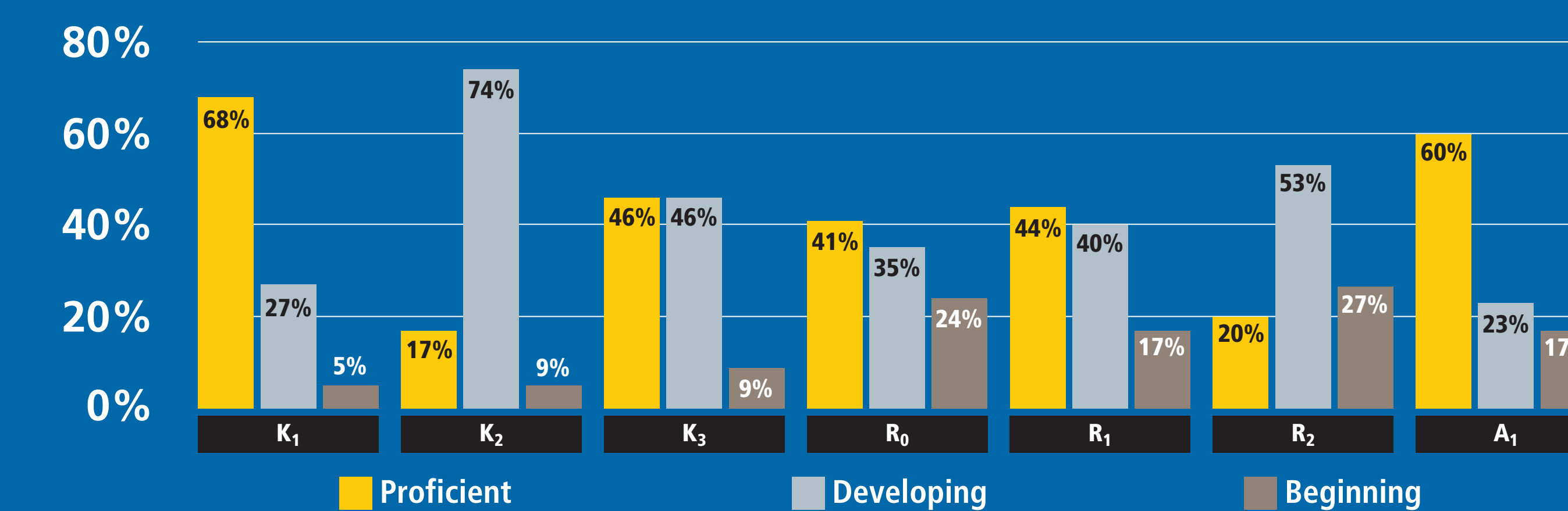**Assignment**
A_1: Finds relevant research resources

Standard	Evaluation criteria	Beginning	Developing	Proficient
K_3: The topic has a manageable focus [ACRL Standard 1, indicator 1.d	Focus topic to manage search results	Topic is unfocused, unclear, too broad or narrow	Topic is somewhat focused	Topic is sufficiently focused
If the research topic is not at the "Proficient" level, provide a comment about what influenced your evaluation				

Online tutorial

Students completed an Academic Search Complete tutorial and eleven accompanying quiz questions delivered via Guide on the Side software. The University Library has supported Composition 2 students with this tutorial since 2014.

Findings

A majority of students demonstrated proficiency in only two of seven rubric outcomes. They were able to identify key concepts that describe the information needed (K_1), and they were able to meet their instructor's research assignment requirements with respect to sources used (A_1).

Proficient　Developing　Beginning

K_1: 68%, 27%, 5%
K_2: 74%, 17%, 9%
K_3: 46%, 46%, 6%
R_0: 41%, 35%, 24%
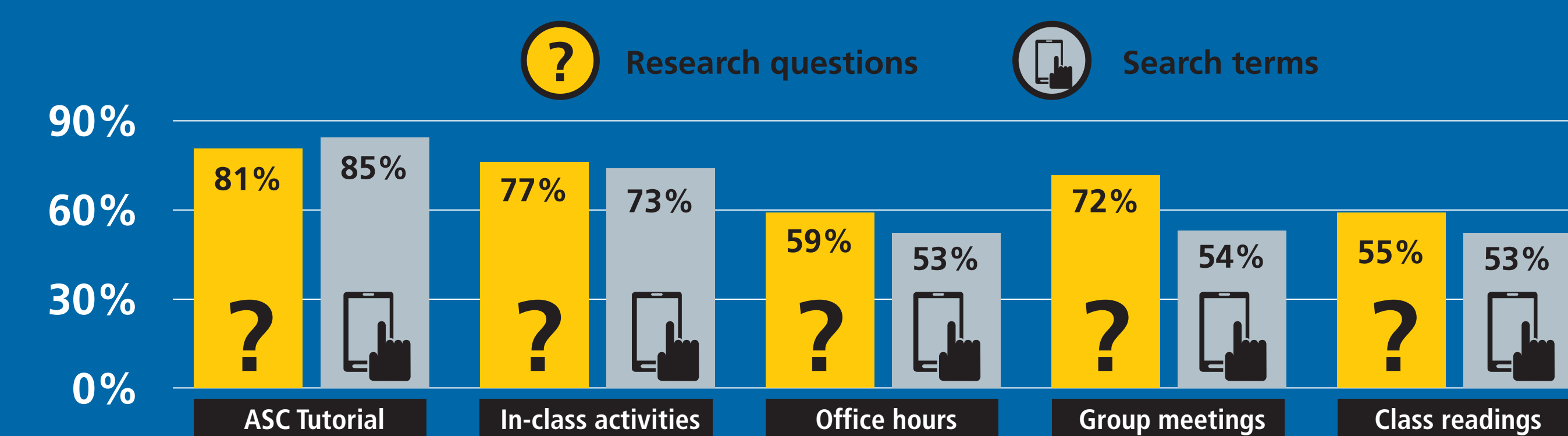R_1: 44%, 40%, 17%
R_2: 53%, 20%, 27%
A_1: 60%, 23%, 17%

By previous writing courses

Students who placed in Core 80B demonstrated lower proficiencies in two outcomes. This suggests that 80B students—mostly freshmen—would benefit from more practice identifying and using library resources.

R_0: Identify the resources where sources were discovered				R_1: Uses databases (ASC) or other Library resources to find relevant articles			
Level	Group 1	Group 2	Group 3	Level	Group 1	Group 2	Group 3
Beginning	33%	9%	42%	Beginning	18%	4%	42%
Developing	28%	42%	32%	Developing	38%	44%	32%
Proficient	38%	49%	26%	Proficient	44%	51%	26%

Tutorial data

We chose to use the tutorial "as-is." The quiz was not well aligned to the analytic rubric. Only three of eleven questions could be mapped to rubric outcomes. The other eight could only be mapped to domains. In their self-assessments, most students rated the tutorial as either very useful or useful for helping them develop their research questions and search terms.

Research questions　Search terms

ASC Tutorial: 81%, 85%
In-class activities: 77%, 73%
Office hours: 59%, 53%
Group meetings: 72%, 54%
Class readings: 55%, 53%

Claims and contributions

Composition 2 students supported by an online tutorial do show evidence of Information Literacy skills in their major research projects, but we do not have direct evidence that those skills were acquired or improved by the tutorial.

Next steps

We will work with our faculty partners to:
❋ improve student proficiency in developing effective searches
❋ improve student proficiency at identifying scholarly sources
❋ revise our online tutorial to align with learning outcomes

Literature review

Badia, G. (2013). Faculty knowledge of information literacy standards has an impact in the classroom. *Evidence Based Library and Information Practice*, *8*(2), 242–244.

Saunders, L. (2012). Faculty perspectives on information literacy as a student learning outcome *The Journal of Academic Librarianship*, *38*(4), 226–236.

Belanger, J., Zou, N., Rushing Mills, J., Holmes, C., & Oakleaf, M. (2015). Project RAILS: Lessons learned about rubric assessment of information literacy skills. *portal: Libraries and the Academy*, *15*(4), 623–644.

Rinto, E. E. (2011). Developing and applying an information literacy rubric to student annotated bibliographies. *Evidence Based Library and Information Practice*, *8*(3), 5–18.

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More information
email: gcareaga@ucsc.edu
url: http://guides.library.ucsc.edu/acrlaia3

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Consulting designer: Rand Careaga