

**2010-11 Information Literacy Assessment
of
First Year UC Irvine Students
Interim Report
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Submitted by

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This report presents the results of the first phase of our assessment of the information literacy levels of first year students at UC Irvine. Information Literacy is defined as a General Education Learning Outcome for both lower- and upper-division writing.

Learning Outcome: Information literacy is an identified learning outcome for UC Irvine's General Education Writing Requirement.

Writing: Because of the importance of visual, oral, electronic, and written communication in every academic discipline, in the professions, and in public life, the University is committed to developing a variety of communication abilities in students at all levels and in all areas. The Writing Requirement expresses this broad commitment, but the concern for and attention to rhetorically effective, accurate writing is expected in all courses.

After completing this GE requirement, successful students should be able to do the following:

Lower-division writing:

- demonstrate rhetorically effective, accurate academic writing and communication across a variety of contexts, purposes, audiences, and media using appropriate stance, genre, style, and organization;
- develop flexible strategies for generating, revising, editing, and proofreading texts;
- develop abilities in critical reading across a variety of genres and media;
- and *demonstrate **information literacy skills** by locating, evaluating, and integrating information gathered from multiple sources into a research project. [emphasis added]*

Upper-division writing:

- demonstrate rhetorically effective, discipline-specific writing for appropriate academic, professional, and public audiences;
- demonstrate at an advanced level of competence, use of discipline-specific research methods, genres, modes of development, and formal conventions;
- and *demonstrate **advanced information literacy skills** by locating, evaluating, and integrating information gathered from multiple sources into discipline-specific writing. [emphasis added]*

(UC Irvine 2010-11 General Catalog, p. 57, <http://www.editor.uci.edu/catalogue/10-11Catalogue.pdf>)

The American Library Association's Association of Academic and Research Libraries defines information literacy as "the set of abilities individuals employ when they recognize that information is needed and have the ability to locate, evaluate, and use the needed information effectively."

(<http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm#ildef>)

The UC Irvine Libraries have adopted their own definition of information literacy. "An information literate UC Irvine student recognizes the interdisciplinary nature of information, and in doing so, can locate, manage, critically evaluate and synthesize information, and is able to use information ethically for academic assignments, problem solving, decision making, continued professional development, and life-long learning."

*Education and Outreach Planning and Advisory Group 10/16/02 Revised 1/7/03. 1/10/03
Endorsed by Library Council, 1/7/03*

Finally, the Council of Writing Program Administrators includes information literacy in their Outcomes Statement for First-Year Composition (adopted April 2000) in the category of Critical Thinking, Reading, and Writing.

- By the end of first year composition, students should: Use writing and reading for inquiry, learning, thinking, and communicating
- *Understand a writing assignment as a series of tasks, **including finding, evaluating, analyzing, and synthesizing appropriate primary and secondary sources** [emphasis added]*
- Integrate their own ideas with those of others
- Understand the relationships among language, knowledge, and power.

<http://www.wpacouncil.org/positions/outcomes.html>

The UC Irvine Libraries teach information literacy and other library research skills to over 10,000 a year. In 2009-10, libraries taught 473 sessions which reached 10,746 which accounts for 563 hours of student-librarian contact. The majority of the workshops we teach are designed to help students meet the requirements of research assignments. All lower-division students are given basic information literacy instruction as part of their required writing courses. The DUE Assessment Grant program allowed us to design a project to measure the impact of information literacy instruction on first year students. We will use the results to inform and improve the instruction librarians provide, as well as to work with faculty to integrate information literacy instruction into the curriculum of their courses in a meaningful way.

Project Methodology:

We used a simple project methodology. We designed and administered a Research Practices Survey to 777 randomly selected incoming first year students during the first four weeks of the Fall Quarter. The survey, which consists of 36 multiple choice and 2 free text questions, is designed to measure students':

- Attitudes and Beliefs about Research
- Personal Definition of Research
- Familiarity with Research Terms and Strategies and Use of Sources
- Use of Sources
- Importance of Research for Undergraduates

We are currently administering the same survey to students during the last four weeks of the Spring Quarter. Once we have all of the data, we will compare the results between the entering and exiting student surveys in order to determine the impact on students' information literacy skills and abilities at the beginning and the end of their first year of university study.

Phase I Results:

Undergraduate respondents appeared to be fairly confident in their ability to conduct research, with responses ranging from 55% to 87% of respondents reporting that the different elements were either very easy or somewhat easy. When asked how challenging it was to identify and retrieve sources, undergraduates reported a high level of confidence in their ability to retrieve sources through some mechanisms, but less ease, and less experience with others. Not surprisingly, an overwhelming majority of students (94%) report that *using an internet search engine* is very easy (75%) or somewhat easy (19%). However, as the skill identified and tested becomes more specific, the less confident and knowledgeable the students' responses are. When asked about the ease of using an electronic index like EBSCOhost Academic Search or Expanded Academic or Reference Gold to find articles on a topic, *more students report that they have **no experience (40%)** with this, than report that it is very easy (10%) or somewhat easy (28%).* [emphasis added] The results are similar when students are queried on how easy it is for them to locate the full text of articles. Only 44% find it very or somewhat easy, while 33% admit that it is somewhat or very difficult, and 22% report that they have no experience locating article full text (See Tables 1-3 for details)

Participants were also asked to describe their personal definition of research, and 731 students responded to this question. Responses demonstrated substantial variation in students' understanding of the research process. Some of the personal definitions were focused tightly on finding information to support a specific argument or in response to a specific classroom assignment, whereas others focused more broadly analyzing and compiling information from multiple sources, or on exploration and the discovery of knowledge. A few representative responses include:

“To look up information, understand, and put it in your own words.”

“Finding background information to help prove your point”

“Research is looking for information that one can use in their paper.”

“Research is the process of collecting and compiling information about a certain subject”

“Research is revealing the truth behind what is unknown and solving problems.”

“Research: to study, or investigate a certain topic. Analyze it and share the results or argument with others.”

“An attempt to uncover something in a scientific method”

“Research is either the creation of new knowledge, or the presentation of a new idea/interpretation using the knowledge/sources of other people.”

Implications and Actions Identified from Initial Entry Survey

The results of this project will allow faculty, course directors, and librarians to determine which information literacy skills are most in need of improvement and to develop tools and curriculum to address the areas of weakness. The results will also provide information about the abilities, knowledge, and skills that students have at the beginning of their courses so that new knowledge can be more effectively introduced based on a firm understanding of what students already know.

We are still in the early stages of evaluating the results and disseminating them to faculty, but we have received significant interest from a number of quarters. Writing and Librarian instructors have found this information useful in considering how and when to introduce and integrate fundamental and advanced information literacy concepts into research instruction sections, or modify instructional plans based on the results. One example is the realization of the widely varying definitions of “research” among incoming undergraduates. Perhaps it would be useful to address these possible definitions early in writing and other introductory courses to develop a shared understanding of what is meant by research.

Next Steps

Once we have completed the 2010-11, First Year Student Information Literacy Assessment, we will distribute the findings broadly. The data gathered will allow us to speak with more confidence to disciplinary faculty and instructors about what they can, and cannot, assume students know about conducting research using scholarly information sources, and provide guidance on how to revise curricula and improve instruction in such a way to provide all students with a basic understanding of how disciplinary knowledge is created, shared and archived by scholars and researchers.

We plan to continue to administer the Research Practices Survey for another two cycles at least, which will provide us with even more confidence in the validity of the results. Participation in the DUE Assessment Grant program provided us with the incentive to incorporate evidence-based practices into our instruction design process, and we will continue to look for opportunities to assess other library services in the same, or a similar, manner.

Research Practices Survey: Entering First Year Students, Fall 2010

Table 1: How challenging are the different components of the research process for you? (n=777)

	Very Easy	Somewhat Easy	Somewhat Difficult	Very Difficult	No Experience	No Response
Determining whether a source is appropriate for an academic project	36%	51%	10%	1%	1%	1%
Deciding what information from your sources to integrate into your project	30%	50%	17%	1%	1%	1%
Knowing when to document a source	29%	47%	20%	3%	1%	1%
Presenting information in an organized and logical manner*	28%	49%	18%	3%	0%	1%
Presenting information in an organized and logical manner*	23%	47%	23%	6%	0%	1%
Documenting my sources	23%	48%	23%	4%	1%	1%
Understanding the information in academic/scholarly sources	22%	50%	23%	3%	1%	2%
Knowing how to document a source	20%	52%	22%	5%	1%	1%
Refining a topic to meet the requirements of the assignment	18%	58%	20%	2%	2%	1%
Developing a list of sources to investigate	17%	53%	25%	3%	2%	1%
Revising my search strategy as necessary	16%	49%	27%	4%	2%	2%
Developing my main argument or thesis statement.	15%	40%	32%	12%	0%	1%
Writing my paper	14%	45%	31%	8%	1%	1%

*Note: This question was inadvertently asked twice on the initial version of the survey.

Research Practices Survey, Entering First Year Students, Fall 2010

Table 2: How challenging is it for you to identify and retrieve sources (n=777)

	Very Easy	Somewhat Easy	Somewhat Difficult	Very Difficult	No Experience	No Response
Using an internet search engine	75%	19%	4%	0%	1%	1%
Physically locating sources in a library	22%	48%	20%	2%	8%	1%
Using a print index	15%	29%	19%	2%	33%	1%
Using a library catalog like ANTPAC to find books.	13%	30%	18%	3%	36%	1%
Using an electronic index like EBSCOhost Academic Search or Expanded Academic or Reference Gold to find articles on a topic.	10%	28%	18%	3%	40%	1%
Locating the full-text of journal articles	8%	36%	28%	5%	22%	1%

Research Practices Survey, Entering First Year Students, Fall 2010

Table 3: Library Research Knowledge

	Correct	Incorrect
Identifying the appropriate source for policies that address a topic	76%	25%
Identifying an entire book from a reference	75%	25%
Identifying the issue of journal based on a reference	74%	26%
Identifying when a citation is NOT required	71%	29%
Finding similar books on a topic	49%	51%
Identifying the appropriate source for commercial perspectives on a topic	47%	53%
Defining a citation	44%	56%
Identifying the appropriate source for the most recent scientific analysis of a topic	41%	59%
Identifying the appropriate source for background information on a topic	38%	62%
Finding a comprehensive list of relevant academic/scholarly articles	31%	69%
Identifying a journal article from a reference	28%	72%
Identifying accurate/inaccurate statements about academic journals/popular magazines	24%	76%
Identifying a book chapter from a reference	22%	78%
Identifying the appropriate source for an overview & summary of current status of a topic	16%	84%