

# **ASSESSING STUDENT AWARENESS OF CORE LIBRARY RESOURCES**

at the

University of Richmond and Washington and Lee University,  
An Associated Colleges of the South Information Fluency Project

## **FINAL REPORT**

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The University of Richmond and Washington and Lee University were awarded \$2,405 from the Associated Colleges of the South, Mellon-funded Information Fluency project to conduct a student survey at both institutions. The financial report appears in Appendix A.

## **General Results**

The survey of student knowledge about library resources conducted by the University of Richmond and Washington and Lee University demonstrated several significant points, all of which raise questions for further investigation:

1. Results at the two institutions were very similar. This implies that results at other ACS institutions would replicate the W&L and UR results. This hypothesis should be tested.

2. Digital search tools and the patchwork availability of full-text of some items in digital form have created confusion about genre and formats. The distinctions between books and journals and an understanding of the structure of journals (i.e., volume, issue, year) are not clear to students. Nor is it clear to them which finding tools they should use nor do they understand the limitations of various finding tools. These findings should be a catalyst to further discussion among librarians (and with students and faculty) about the role of the catalog, its relationship to other tools, and how and if they should be integrated.

3. The Web is central to student research. How can the libraries of liberal arts colleges make sure that students make effective use of library-provided web-based information resources? How can and should the library's presence be conspicuous within an institution's overall Web site, and how should the library's Web site be designed for intuitive and effective use?

## **Why We Proposed the Project**

The University of Richmond and Washington and Lee University proposed to bring into the ACS information fluency (IF) project an underrepresented and essential constituency—undergraduate students. Students were involved as respondents to a brief survey designed to give these two institutions, and by extension all ACS members, valuable information about student awareness of fundamental library resources. We assumed that the information gathered would be useful for IF program planning and as a tool for engaging faculty interest in IF at both of our institutions as well as across the consortium.

Discussions with student leaders at the University of Richmond revealed that students have an interest in IF and would like to improve their knowledge of the information sources available to them for use in their academic work. These students and the student government organizations they represent were eager to be partners with the library in its efforts to reach UR students. Conversations between Washington and Lee students and the W&L library demonstrated similar concerns and willingness to work on IF issues.

Richmond and Washington and Lee jointly proposed to survey students to determine if the anecdotal evidence presented by the student leaders reflected the student body's actual awareness of the resources available to them through their library. Observation by librarians at both universities was in line with the students' anecdotal and impressionistic assessment of the situation.

Given the similarities in key characteristics of ACS institutions (largely residential institutions serving students in the “traditional” college age range and emphasizing liberal arts curricula and quality teaching), we saw value in comparing results of a survey of student awareness of library resources at these two institutions. We hoped that these results would indicate value in replicating the survey at other ACS institutions and that, perhaps, results could be generalized across the entire ACS membership.

## **Description of Institutions**

The University of Richmond and Washington and Lee University are similar institutions in a number of respects. Both are old, private, highly selective, independent liberal arts universities with relatively small graduate programs. Their small size and diversity of programs enable and encourage interdisciplinary projects with a wealth of opportunities for student-faculty interactions. Both are places where undergraduate students routinely engage in research alongside their professors.

The University of Richmond's undergraduate population is approximately 3,000 (51% women, 49% men). There are about 300 full-time faculty; student-faculty ratio is eleven to one; average class size is 18. All classes are taught by faculty, not graduate assistants.

At Washington and Lee, the undergraduate population is approximately 1,750 (53% men, 47% women). There are approximately 185 full-time faculty; student-faculty ratio is eleven to one; average class size is 16. All classes are taught by faculty.

## **Current State of Library Instruction**

### **University of Richmond Library Instruction Program**

#### Freshman Library Program:

Online orientation/tutorial to UR Libraries locations, services, and basic resources and skills (e.g., finding a book or searching for an article in Expanded Academic Index). Students must pass an online quiz within first 5 weeks of semester.

Required as part of the university's Orientation for first year students in order to register for second semester.

Library 100: 2 workshops, one each in the fall and spring semesters, designed as hands-on follow-up to the online orientation. This new requirement has just been passed by the university faculty and will be implemented for the first time in the 2003-04 academic year. It is a graduation requirement for all degree-seeking students

Course-related instruction on developing and focusing a research question; developing a search strategy, identifying major research tools on a topic, both electronic and print; finding journal articles; evaluating sources.

Online Subject Research Guides, describing appropriate print and electronic resources for all academic disciplines and interdisciplinary areas in which students may major. Guides provide direct links to recommended online databases and other web sites.

Course-specific research guides; these web pages are linked to the appropriate subject web page, the professor's web page or Blackboard page, and a separate listing of all such pages.

Online "how-to" guides for citing sources, distinguishing between popular magazines and scholarly journals, finding primary sources, creating an annotated bibliography, etc.

Research Consultations: available to students working on research projects or with complicated research questions, by appointment.

### **Washington and Lee University Library Instruction Program**

Library instruction at Washington and Lee is the responsibility of the departmental liaisons for the various academic disciplines. Instruction is presented in both for credit classes (research resources) lasting an entire term, and in single class appearances. Some departments require a research-type class for majors (biology, politics, journalism and mass communications, East Asian Studies, art, religion); others do not (English, French, history, sociology and anthropology). A few professors enthusiastically support library instruction for their students and require it each term. Web pages are created to enhance and

follow up on class presentations. Student surveys are distributed in an effort to get feedback for improving presentations and adding new elements to the class. Elements of library instruction have been attempted in various forms over the years as a part of the freshman orientation process. We are still experimenting with successful methods in freshman orientation. Library tours are sometimes requested in orientation and help orient new students to what may seem like a bewildering array of resources. Library instruction is also given every summer as part of a Summer Scholars program for gifted high school students.

During the 2001-2002 academic year Washington and Lee librarians taught 10 multi-session research resources classes reaching a total of 171 students. In 38 single class sessions over the three terms of the academic year librarians reached a total of 882 students. Some of these students were in multiple classes. Twelve other classes had special web pages prepared with no classroom appearance. These classes contained a total of 230 students and all the web sites involved had well over 1000 hits in total.

## **Development of Survey**

Discussions with students at both institutions revealed the need to keep the survey short (approximately 20 questions) and to provide incentives for participation. We used e-mail to begin the development of survey questions. In May, 2002, all 6 of us met at Washington and Lee with Linda Hooks, Professor of Economics and survey research expert. The questions were further refined through pilot tests with library student assistants, and the survey was in its final form by late summer. It contained 18 multiple choice and 2 open-ended questions. A copy appears in Appendix B.

The University of Richmond and Washington and Lee University both chose to use the SurveySuite (see <http://intercom.virginia.edu?SurveySuite>) software to administer a Web-based survey to students.

## **Administration of Survey**

In November 2002, librarians at the University of Richmond notified all undergraduates that the survey was open and invited them to respond. This information was distributed as an e-mail notice included in the daily Campus Notices. As an incentive, students were promised that the first 500 respondents to complete the full survey would be rewarded with 40 units (good for as many black-and-white pages) added to their printing accounts. This non-transferable reward has a cash value of \$2.00 per student. 460 Students completed the survey, or 15% of the undergraduate student body.

In February 2003, librarians at Washington and Lee notified all undergraduates that the survey was available and encouraged them to respond. The survey asked for experiences from the previous term. W&L administered the survey during the winter term so that the students would report on fall term experiences rather than the short 6-week spring term. The information was distributed as an e-mail notice included in the daily Campus Notices. The incentive to participate was a \$2.00 value soft drink from the Snack Bar, with all participants eligible for the drawing of a \$50 gift certificate at the Bookstore. The e-mail notice did not produce a sufficient number of respondents. On the advice of our consultant, we asked the members of the Faculty Library Committee to encourage the students in their classes to take the survey. The committee included faculty from the music, religion, politics, romance languages, English, sociology, management, and philosophy departments. We also encouraged the library's student assistants to take the survey. All of these efforts combined resulted in 277 students who completed the survey, or 16% of the undergraduate student body.

## **What Did We Learn**

We contracted with Jim Self, Director of Management Information Services at the University of Virginia library to analyze the survey results. His report is included here. Please consult Appendix B for the survey questions and answers.

### **Observations on the Information Fluency Survey University of Richmond Washington and Lee University**

#### *The Importance of Student Research*

Question 2 demonstrates that the vast majority of students are required to do research every semester. 89% of UR students and 83% at W&L reported they had assignments during the last term that required use of information sources beyond the textbook and reserve readings.

It is not clear exactly what information sources were used, or where the information was located. One may assume, or hope, that many of the students utilized library resources, but we cannot be sure of this.

#### *Prevalence and Utility of Librarian Presentations*

A solid majority of students (70% at UR, 57% at W&L) have heard at least one presentation by a librarian. (Question 3)

Students at both institutions overwhelmingly found presentations by librarians to be useful. Among those who had heard presentations, only 9% of UR students, and 13% of W&L students rated the presentations as “not useful.” (Question 4)

#### *Use of the Library Website*

Substantial numbers of students at both schools report frequent use of the library website. At UR 68% say they use it at least weekly, at W&L 45% report weekly use. (Question 7)

#### *Sources of scholarly information*

Question 9 indicates the students are very well informed regarding the nature of scholarly information. At UR 96% of respondents indicated that journals were an appropriate scholarly source, while only 13% named the web as a scholarly source. Thus, 87% were correct in not listing the web. At W&L the numbers were not quite as high, but still impressive—87% chose journals, and 72% did not choose the web.

At both institutions those who had heard at least one presentation had more correct scores than those who had not. Question 9 suggests the presentations were successful in teaching students what qualifies as a scholarly source.

#### *Finding information for assignments*

Question 6 asked students where they usually looked for information needed for assignments. Substantial numbers (70% at UR, 68% at W&L) reported they used the library website. This information corresponds nicely with Question 7, which reported frequent use of the library website.

However, similarly high percentages (62% at UR, 71% at W&L) said they usually used a web search engine. This information would seem to conflict with the message of Question 9, in which large majorities indicated the web was not a scholarly resource.

Library presentations seem to have an impact in this area. Those who have heard presentations are more likely to use the library website, and less likely to use search engines. This was true at both institutions.

At UR 75% of presentation recipients marked the library website on Question 6, but only 59% of non-recipients marked it. At W&L 71% of presentation recipients marked the library web site, and 64% of non-recipients marked it.

At UR 58% of those hearing a presentation said they usually used a web search engine; 69% of those without a library presentation said they did. At W&L the percentages were 64% and 81%, respectively.

#### *Knowing the library catalog*

The survey indicates that many students are not clear as to the scope of the library catalog. Question 8 asks, "What can you find by using ...the library's online catalog? (Check all that apply.)"

The correct responses are 1. Books in the [campus] library; 4. Newspapers in the [campus] library; 5. Journals in the [campus] library; 6. Videos, DVD's, music CDs in the [campus] libraries. Two of the choices are incorrect and should not be marked: 2. Books in other libraries; 3. Citations to journal articles.

Very few students answered the question perfectly (11% at UR, 19% at W&L). Library instruction was no help here; the students who had heard a presentation actually scored lower (10% UR, 18% W&L) than those who had not (15% UR, 21% W&L).

#### *Finding periodical articles*

The survey also makes clear that many students have difficulty locating periodical articles. Question 10 asks, "What would you use a periodical index for? (Check one)." The correct answer is "To find citations of magazine or journal articles." A minority of students (48% at UR, 43% at W&L) answered the questions correctly. Those who had

heard a library presentation did slightly better (50% at UR, 46% at W&L), but the results were still not impressive.

Question 11 offers similar results. The survey provides a citation of a periodical article and asks the students “what would you search to learn if our library owns it?” The correct answer is “Search the title ‘U.S. News & World Report.’” A minority of students (45% at UR, 49% at W&L) gave the right answer. Students who had heard a library presentation did slightly better at UR (49% correct), but worse at W&L (46%).

#### *The relationship of the catalog and periodical indexes*

Taken together, Questions 8, 10, and 11 show that a majority of students do not understand the relationship between periodical indexes and the library catalog. This is a widespread, perhaps universal, situation.

An article last year noted that students at Western Michigan University had difficulty recognizing the following: “The role and content of the OPAC...The need to use an index, not the OPAC, to identify an article...The distinction between the title of a journal and the title of an article.” (Barbara J. Cockrell and Elaine Anderson Jayne, “How Do I Find an Article? Insights from a Web Usability Study,” *Journal of Academic Librarianship* v. 28 no. 3 (May 2002), 122-32.)

Judy Luther has reported similar confusion: “Students don’t necessarily use the term journals nor do they have the concept that these formerly print publications are now housed in a database format...In a focus group...students told me they didn’t use journals—they used JSTOR.” (Judy Luther, “Users=Usability,” *Charleston Advisor* v.4 no. 3 (Jan 2003))

Usability testing at the University of Virginia Library has revealed that typical undergraduate students do not see a distinction between journal titles listed in the VIRGO online catalog, and the journal citations included in electronic databases, and the journal articles included in full-text electronic databases. (Personal observation—Jim Self. Reported at the ACRL conference, 2003.)

#### *Concluding Comments*

The survey indicates that both institutions have very well developed and successful information fluency programs. The great majority of students participate in the programs, and they think the programs are useful.

The information fluency programs seem successful in informing students of certain valuable resources, e.g., the library website. The programs have also helped students to enhance their knowledge of scholarly sources; program participants are better able to identify appropriate and inappropriate sources.

These programs have been less successful in teaching the mechanics of information retrieval in a library. Students do not understand the way we librarians organize our resources. The majority of students do not know what is in the online catalog, or how to

find journal articles using our tools. This may be our profession's most challenging problem—how can we teach students to see the world as we do.

Technical Notes

The sample: the number of survey responses is sufficient (474 at UR, 285 at W&L) to make observations with some degree of confidence, if the respondents are a representative sample of the entire student body. My comments assume the respondents at each institution are a representative sample of all students.

Data: The comments on Questions 6, 9, 8, 10, 11 are based on cross tabulations of these questions with Question 3. (“During your time in college, how many times have you heard a presentation by a librarian in one of your classes?”) The respondents to Question 3 were divided into two categories: those who answered “Never” were put into one category; those who answered the question positively were put into the other category. The data from these cross tabulations may be found in the accompanying Excel file.

Jim Self  
Library and Statistical Consultant  
and Director, Management Information Services  
University of Virginia Library

## **Further Research and Questions**

The UR/W&L Survey elicited several issues and questions for further research studies or surveys. Question #2 dealt with the number of assignments that required students to use information sources other than textbook or reserve readings. Given that the UR survey showed a larger percentage of students using outside information resources than W&L students, further inquiry on how the number of assignments/research papers affects students' library use and the sources they use would add to our understanding of the relationship between course-related assignments and library use.

Terminology is another area that may require further research and refinement. For example, the phrase "to find" was used in several questions and it is not clear how students were interpreting this phrase, in a physical manner (as to find and retrieve a book from the shelf) or to find information or identify an information source in a database or catalog. Other terms, such as "periodical index" or "online database" might also cause confusion with understanding of the question. This problem suggests that we may need to have broader pilot surveys or interview students thoroughly to understand how they interpret terms used by libraries to describe their resources.

Question #8 demonstrated that students do not fully understand the holdings in a library catalog. A further question to ponder is how important is it that students understand the nuances of library catalogs, especially with various changes that are taking place within library systems, such as the inclusion of e-books, full-text journal articles, etc. We also noted some differences in student use of the library web site at the respective institutions. A further question for research might be the following: Are there identifiable web design principles that maximize site use or is the effectiveness of a web site's appearance and organization closely tied to the nature of the library's resources and its user population? Does marketing or advertising of the library site make a difference in usage?

## **Conclusion**

Jim Self's analysis highlights the similarities in responses from University of Richmond and Washington and Lee students. The survey did identify critical areas for attention by each institution's library instruction program. It also provided us with objective data to use with our respective faculty. We encourage other ACS libraries to use the survey and to compare their results with ours. If the results are as consistent as those we found, we would have something meaningful to say about the state of information fluency in liberal arts colleges.

## Appendix A

### Financial Report

#### University of Richmond

Received \$1,245

Expended

Travel \$92  
Lunch \$68  
James Self \$1,085

#### Washington and Lee University

Received \$1,536

Expended

Bookstore award \$50  
Travel \$81  
James Self \$1,405

## Appendix B

### Using Information Resources

1. PLEASE NOTE: The first 500 students who complete this survey will receive a free drink at the Snack Bar. In order to qualify for this you must: 1) Complete the entire survey 2) Provide your University ID number (on your university card) in the space below

2. How many assignments did you have last term that required you to use information sources other than the course textbook or reserve readings?
  - None
  - One
  - Two
  - Three
  - Four or more
  
3. During your time in college, how many times have you heard a presentation by a librarian in one of your classes? (Check one)
  - Never
  - Once
  - Twice
  - Three times
  - Four or more times

4. If you have heard at least one in-class presentation by a librarian, how useful was it for your classwork? (Check one)
- Very useful
  - Useful
  - Somewhat useful
  - Not useful
5. If you have heard at least one in-class presentation by a librarian, what was most helpful?
- Learning about the best resources for a particular discipline or assignment
  - Getting acquainted with the librarians and how they can help me
  - The course Web page prepared by the librarian
  - Other
6. When you need help finding information for an assignment, you usually go to: (Check all that apply)
- Library's Website
  - Another student
  - Faculty member
  - Librarian
  - A Web search engine (such as Google, Yahoo, AltaVista, etc.)
  - Other, Please Specify:
7. How often do you use resources listed on the Library's Web site(<http://library.wlu.edu>)?

- Daily
- Once a week
- More than once a week
- Once a month
- Never

8. What can you find by using Annie, the library's online catalog?  
(Check all that apply)

- Books in the W&L libraries
- Books in non-W&L libraries
- Citations to journal articles
- Newspapers in the W&L libraries
- Journals in the W&L libraries
- Videos, DVD's, music CD's in the W&L libraries

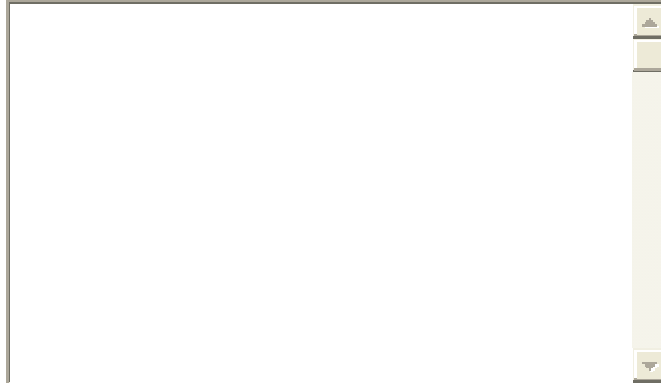
9. Imagine you have an assignment to write a paper based on scholarly information. Which would be the most appropriate source(s) to use? (Check all that apply)

- Journal
- Magazine
- Newspaper
- Book
- Web

10. What would you use a periodical index for? (Check one)

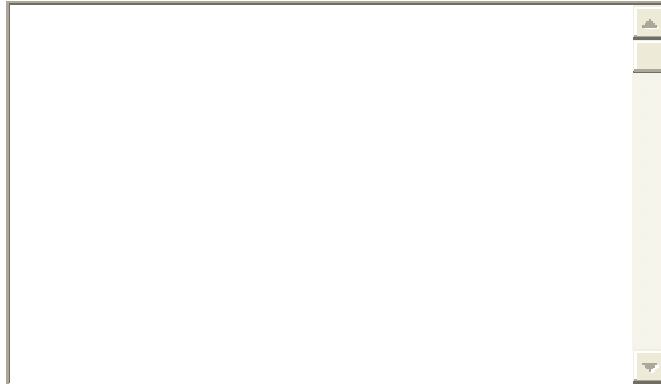
- To check your e-mail
- To search the Web

- To find citations of magazine or journal articles
  - To find out if your library owns a particular magazine or journal
11. If you had the citation for the article: Thomas, Susan Gregory. "Capitalists on Campus: students with computer skills can cash in." U.S. News & World Report, 7 Sept 1998:82, what would you search to learn if our library owns it?
- Search the title "Capitalists on Campus"
  - Search the title "U.S. News & World Report"
  - Search the author Susan Gregory Thomas
  - Search the subject "college students work"
12. Which of the following techniques do you use to choose search terms? (Check all that apply)
- Write out your topic in a few sentences
  - List your topic's main terms and phrases
  - List abbreviations and alternate spellings of words
  - Check a subject encyclopedia for ideas and concepts
  - None of the above
13. Name the library information resource(s) you use the most:



14. How difficult is it for you to find the information you need for your course assignments? (Check one)
- Very difficult
  - Difficult
  - Somewhat difficult
  - Not difficult
15. Should the university require every student to take a workshop on using information resources?
- Yes
  - No
16. If you answered “Yes” to question #15, when during college would a workshop on using information resources be most useful?
- Freshman year
  - Sophomore year
  - Junior year
  - Senior year

17. Reflecting on your answers above, please make any additional comments you may have about our library information resources.



18. Class year:

- Freshman
- Sophomore
- Junior
- Senior

19. Sex:

- Male
- Female

20. Major(s):

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[Submit Survey Responses](#)

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*This survey was created using the*  
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*by*

