

# **Value-Added Assessment for English 1010 and 2010: Report of Results for the Information Literacy Component**

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## **I. Introduction**

In Fall 2005, the Utah State University English Department and Library Instruction Program conducted a “value-added” assessment of the English 1010 and English 2010 course series. We repeated the same methodology that we used during the 2004-2005 academic year. At the beginning of the semester, all English 1010 students wrote a prompted essay, using two different prompts. At the end of the semester, all English 2010 students wrote the same essay. One essay prompt was about freedom of speech on campus; the other was related to gender differences in academic performance. A sample of these essays (n=407) were scored and compared. 203 essays were written by 1010 students and 204 by 2010 students. Students also completed a questionnaire about their academic backgrounds, their past writing and reading experiences and their library use. The results of the total writing scores and questionnaire are reported separately. (See <http://aaa.main.usu.edu/Assessment/pdf/Value%20AddedEnglish-2006.pdf>).

## **II. Method**

As in 2004-2005, the USU Library Instruction Program conducted a citation analysis to assess whether there was a difference in the number and types of information sources cited in the English 1010 and English 2010 essays. We compiled an Excel spreadsheet, recording all of the sources cited by students, either in a reference list or in footnotes.<sup>1</sup> The total number of sources was 281, but 27 of these were the essay prompts themselves. We excluded these from our analysis, providing a total of 254 citations.

We recorded standard citation information (author, title, date, etc.) for each source. We then classified these sources by type (web site, book, scholarly article, etc.). For the web sites, we also classified sub-types, such as .com sites, .edu sites, or reference sources (e.g. an online encyclopedia). As in our previous assessment, we noticed that several students cited the same web sites, so we recorded multiple citations and analyzed these as well.

We also noticed that some of the popular and scholarly articles cited by students did not necessarily come from the library, either in print or via a subscription database. In some cases, students provided the URL, so we could see how they found and accessed the articles. When we did not have a URL, we looked for each article in the library’s electronic journals and in Google, the most popular search engine in current use. We also checked to see if books cited were available in the library by doing a search of the Online Library Catalog. In general, we assumed that students would use the simplest means to find and access articles, favoring Google, then electronic library sources, then print. Thus, we have a picture not only of what kinds of sources students cited, but also how they accessed their sources, either through the library or the World

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Wide Web. The statistics on mode of access are not completely reliable, as they involve some guessing, but they do confirm many studies that suggest that students favor the World Wide Web and other electronic sources over the use of library resources, especially those in print.

## II. Citation Analysis Results

English 2010 students were more likely to cite outside sources of information. Only 32 English 1010 students (16%) cited outside sources of information, a percentage identical to the results of 2004-2005. Seventy-four English 2010 (36%) students cited outside sources. A chi-square test was done, and the different rate of citing sources was statistically significant. See Table 1. Despite the gain in percentage between English 1010 and 2010, only 26% of all students cited outside sources. The instructions encouraged students to use other sources and write for an academic audience.

Cited outside sources?	# students citing sources (%)	# with no citations
English 1010 (n=203)	32 (16%)	171
English 2010 (n=204)	74 (36%)	130
Totals	106 (26%)	301
Chi-square value=22.22; df1; p=<.001		

**Table 1: Use of outside sources**

The 2010 citation rate showed a marked decline from the previous year's assessment, in which 45% of English 2010 students cited sources. Some instructors told students they would receive full credit no matter what, so they might not have taken the essay as seriously as a regular class assignment. Yet the citation analysis might also have captured students' natural behavior (primarily using the Web) when types and numbers of sources are not explicitly required. Interestingly, when comparing the rates of citing outside sources to self-reported data from the questionnaire, students over-reported their use of outside sources, especially 1010 students. Students might have looked for outside sources, but then failed to cite them in their essays. See Table 2.

	Questionnaire: Used Outside Sources	Actual Use of Outside Sources
1010	122	32
2010	120	74
Totals	242	106

**Table 2: Self-Reported versus Actual Use of Outside Sources**

Among 2010 students, there was a difference in their use of outside sources depending on how they met the English 1010 requirement. Students who waived English 1010 through AP tests or ACT scores were more likely to cite outside sources (50-60% of the time) than students who took English 1010 at USU, either online or in person, or through concurrent enrollment (around 30% cited sources). A chi-square test suggests that these differences are not statistically significant, however. See Table 3.

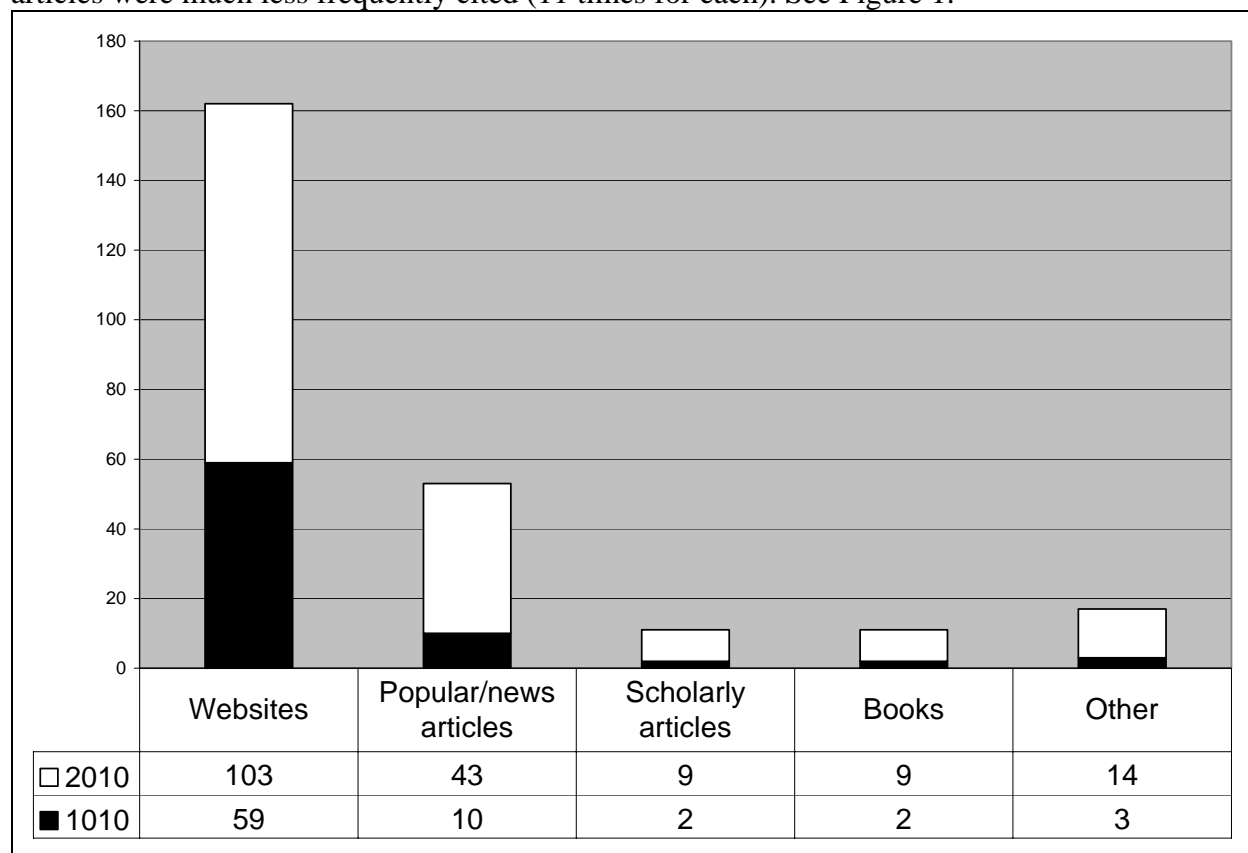
How students fulfilled English 1010 Requirement	# students citing outside sources	# students citing no sources	Totals	% of category who cited
USU face to face	21	55	76	27.6%
USU online	1	0	1	100.0%
Online from another college	4	4	8	50.0%
Face to face another college	3	8	11	27.3%
Concurrent enrollment	15	31	46	32.6%
ACT/SAT waived	9	9	18	50.0%
AP waived	14	9	23	60.9%
Other	7	14	21	33.3%
Totals	74	130	204	

Chi-square value 13.13, df 7 (critical value=14.1 at 0.05 level)

**Table 3: 2010 citations patterns and English 1010 requirement**

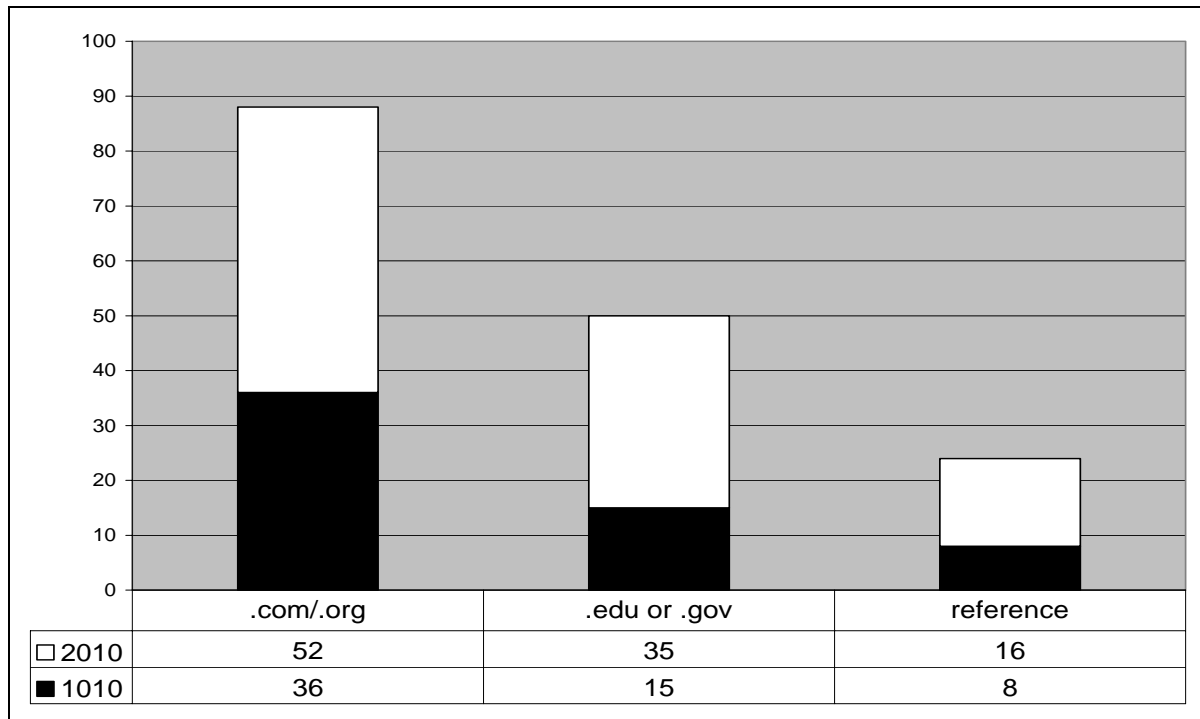
If the slight upward trend in the tendency to cite outside sources among students who waived English 1010 is reflective of anything, it might simply be that these are higher achieving students more generally, as the results of last year's assessment suggested (see <http://aaa.main.usu.edu/Assessment/pdf/ValueAddedEnglish1010andEnglish2010.pdf>).

Of the total sources cited, websites predominate, comprising 162 of the total 254 citations. Popular or news articles were next in popularity, with 53 total. Books and scholarly articles were much less frequently cited (11 times for each). See Figure 1.



**Figure 1: Types of sources cited**

Of the websites appearing in citations, most were from .com or .org sites. See Figure 2. Websites were classified according to their overall purpose, not necessarily in strict accordance with their URL. Websites with a commercial, political, or other personal perspective were classified as .com/.org sites. Websites from universities, museums, educational institutions, or government agencies were classified as .edu/.gov sites. Reference sites included online encyclopedias and legal information portals.



**Figure 2: Types of websites cited**

We also analyzed each citation for mode of access. We wanted to know whether the articles students cited came from library subscription databases or were freely available on the World Wide Web. For each article citation, we searched Google using title and/or author keywords. If the article appeared in the first page of search results and was freely available then we classified the mode of access as the Web. If the article was not available on the Web, we searched our electronic journals database to see whether the publication was available electronically through the library. If it was, we classified these articles as “library electronic.” If the article was not available electronically, we checked the online catalog to see whether we carried a print subscription. We did the same for books, checking the online catalog to see whether the library owned the book. When the library did not own the book and it was not available on the Web, we assumed that students discovered the book

Access via library or web	# of students	%
Web only	79	75%
Web and library electronic	7	7%
Library electronic only	4	4%
Web and other sources	6	6%
Use of any print sources	4	4%
Other	6	6%
Total	106	100%

**Table 4: Mode of access**

in another way, or already owned it. There were a few books that appeared to be textbooks for other classes, for example.

In some cases, we know the mode of access because the citations included a URL to a website or to one of the library subscription databases. In other cases, we assumed that students prefer electronic access and decided in favor of the Web, then library electronic databases, and then print. On the questionnaire, only 50 students said that they used the library. Of these, only 22 students (or 21% of students who used outside sources) actually included citations in their essays. This percentage matches our characterization of mode of access, with 79% of students using the Web and 21% using the Web and/or the library or another source to find outside sources of information. See Table 4. English 2010 students seemed much more likely to use the library, either using library subscription databases or print sources. Of the 32 English 1010 students who used outside sources, 29 (or 91%) used only the Web. Fifty (or 68%) of the English 2010 students used only the Web.

Finally, as in last year's assessment, we noticed that several of the same websites appeared in multiple essays. There were 23 repeat citations, five for the Lowry prompt on gender and 18 for the Bok prompt on free speech. We counted repeat citations as anything with the same root URL, such as [firstamendmentcenter.org](http://firstamendmentcenter.org). Even if the documents cited were different, students likely went to the same root site as the result of a search. We reconstructed searches in Google (generally, the most popular search engine in current use) using keywords from the essay prompts, such as freedom of expression, gender differences, and names of individuals mentioned. We found that several of the repeat citations appeared in the first page of Google search results for these common keywords. It should be noted that the rankings for these searches reflect when they were done, in April 2006. Rankings might have been slightly different in the fall, when English 1010 and 2010 students conducted their research. See Tables 5 and 6.

Web URL	Times cited	Common Search Terms (Rank of results in Google)
<a href="http://www.firstamendmentcenter.org">www.firstamendmentcenter.org</a>	11	first amendment (3) free speech campus (3) confederate flag free speech (10)
<a href="http://www.constitutioncenter.org">www.constitutioncenter.org</a>	7	Constitution (5)
<a href="http://caselaw.lp.findlaw.com">caselaw.lp.findlaw.com</a>	5	first amendment (4) freedom of speech (16)
<a href="http://www.law.cornell.edu/constitution">www.law.cornell.edu/constitution</a>	5	first amendment (1) freedom of speech (6)
<a href="http://www.thefire.org">www.thefire.org</a>	5	free speech campus (2) free speech Harvard (5)
<a href="http://en.wikipedia.org/wiki/Freedom_of_speech">en.wikipedia.org/wiki/Freedom_of_speech</a>	4	freedom of speech (3)
<a href="http://ksgfaculty.harvard.edu/Derek_Bok">ksgfaculty.harvard.edu/Derek_Bok</a>	3	Derek Bok (3)
<a href="http://www.thecrimson.com/article.aspx">www.thecrimson.com/article.aspx</a>	3	confederate flag Harvard (2 and 15)
<a href="http://history1900s.about.com/cs/swastika/a/swastikahistory.htm">history1900s.about.com/cs/swastika/a/swastikahistory.htm</a>	3	swastika (1)
<a href="http://www.lib.edul.edu/ud/freedom/aaup.html">www.lib.edul.edu/ud/freedom/aaup.html</a>	3	freedom of expression on campus (1)
<a href="http://www.billofrights.org">www.billofrights.org</a>	2	bill of rights (11)
<a href="http://www.rutherford.org/articles_db/commentary.asp?record_id=160">www.rutherford.org/articles_db/commentary.asp?record_id=160</a>	2	confederate flag free speech (6)
<a href="http://www.usatoday.com/news.washington.2003-11-02-free-speech-cover_x.htm">www.usatoday.com/news.washington.2003-11-02-free-speech-cover_x.htm</a>	2	free speech campus (10)

**Table 5: Google ranking for Bok prompt keywords**

<b>Web URL</b>	<b>Times cited</b>	<b>Common Search Terms (Rank of results in Google)</b>
<a href="http://www.singlesexschools.org">www.singlesexschools.org</a>	2	single sex schools (1) boys girls difference (9)
<a href="http://wik.ed.uiuc.edu/index.php/Gender_Differences">wik.ed.uiuc.edu/index.php/Gender_Differences</a>	2	gender differences school (1)
<a href="http://www.whygendermatters.com">www.whygendermatters.com</a>	2	why gender matters (10) Leonard Sax (1)
<a href="http://www.news.cornell.edu/Chronicle/96/4.25.96/gender.html">www.news.cornell.edu/Chronicle/96/4.25.96/gender.html</a>	2	gender bias (1)
<a href="http://www.slate.com/id/2112570/">http://www.slate.com/id/2112570/</a>	2	Larry Summers (4)

**Table 6: Google ranking for Lowry prompt keywords**

As in the 2004-2005 assessment, the appearance of repeat websites and their high rank in Google suggests that students are merely skimming the surface of the information available. In replicating the searches using the most common keywords from the prompts, we also ran across several of the citations to articles and websites found in other essay bibliographies. Again, this suggests that students are not only relying on the Web and search tools like Google; they are also not digging very deep. Very few of the repeated sites were found on the second page of Google results. Furthermore, our estimate that only four students used print sources of any kind suggests that students clearly prefer electronic resources. With increasing numbers of both popular and scholarly articles available via the Web and major search engines, many students will likely continue to bypass the library. Nine of the eleven scholarly articles used by students for the assessment essay were available on the Web, either via Google Scholar, Google, or findarticles.com. The other two sources were available both on the Web and via a library subscription database. By using the Web to find scholarly material, students are relying on the less consistent search algorithms and automated indexing of search engines instead of the comprehensive indexing databases provided by the library.

### **III. Conclusions and Recommendations**

As in the previous value-added assessment, the citation analysis suggests that there is “value-added” during the English 1010/2010 sequence. Entering English 1010 students are far less likely to cite outside sources of information than students at the end of English 2010. The analysis also shows, however, that students still need additional instruction in order to improve their information literacy skills. First, while many students might not have taken the assessment essay seriously, as an “artificial” assignment, the fact that so few English 2010 students cited outside sources suggests that students have not developed research as a habit by the end of the 1010/2010 sequence. It does not appear that the manner in which students took English 1010 makes much of a difference in students’ tendency to cite. Even high achieving students (those who waived English 1010) are not likely to use outside sources of information unless explicitly required to do so. The prevalence of websites among the sources cited confirms that students continue to rely on the most convenient information sources.

The similar results from 2005 and 2006 suggest that the citation analysis is capturing at least some of the natural information behavior of students. By the end of English 2010, around one-third of students seem to have learned that using outside sources of evidence is expected in

college-level writing. The fact that two-thirds of students did not use outside sources might be a result of the artificial nature of the assessment and the instructions they received. A casual comparison to actual English 2010 papers shows that students are much more likely to cite outside sources because it is explicitly required of the assignment. The prevalence of web sources, which are often limited or prohibited in actual English 1010 and 2010 assignments, also suggests that students approach research as a process of meeting assignment requirements, rather than truly learning the value of finding, evaluating, and integrating information from a wide range of sources. Until students understand and internalize the value of this process, they cannot be said to be truly “information literate.”

This value-added assessment suggests that some 2010 students are making progress toward this larger goal, but that many are not. The USU Library Instruction Program and the English Department have already begun the process of modifying library instruction to better meet the needs of students, especially in English 1010. We have incorporated problem-based learning, group research projects, and extensive team-teaching with librarians to better integrate the research process into writing assignments. The results of these changes were likely not measured by this assessment because most of these changes were implemented in English 1010 in Fall 2005. We cannot directly measure whether or how library instruction in English 2010 contributed to the greater tendency of 2010 students to use outside sources, but the fact that most students still did not cite sources suggests that improvement is needed in the 2010 course. As a result, we make the following recommendations.

- 1. Conduct an assessment of student work in English 1010 and English 2010.** The Library is in the process of assessing a small sample of actual essays and bibliographies written as assignments in English 1010 and 2010. We are conducting a citation analysis and scoring student work according to a rubric that measures the quality of students’ use of evidence. The citation analysis can be used to determine whether students are more likely to use library resources when it is an explicit requirement. The overall scoring will tell us how many students reach the good or excellent level of proficiency in using information in their writing. Our current sample is small, however, and we would like to conduct a more systematic assessment of actual work in cooperation with the English Department.
- 2. Conduct a longitudinal assessment of the English 1010 library curriculum.** We are currently planning a long-range assessment of students who participated in the library English 1010 curriculum in the 2005-2006 academic year. We will use focus groups and possibly surveys to ask students how the curriculum did or did not contribute to their learning and preparation for English 2010 and advanced coursework. We are currently seeking assistance from the library administration and the Office of Analysis, Assessment, and Accreditation to support this effort. These more focused assessments (in items 1 and 2) will help us pinpoint areas of student learning and weakness so we can further modify library instruction at USU.
- 3. Work with the English Department to improve English 2010 library instruction.** The library component is tightly integrated into the English 1010 curriculum, and future assessments will tell us how this contributes to student learning. While we have worked with English 2010 instructors to experiment with new ways to integrate library instruction, this is still a somewhat scattered effort, largely dependent on the

personal teaching styles and philosophies of English 2010 instructors. Since approximately half of English 1010 students take 1010 somewhere else or waive the requirement, English 2010 is the only place in the general education curriculum for a concentrated information literacy instruction effort. While cooperation between librarians and English 2010 instructors continues, we need to work together even more closely. We need to build upon the English 1010 curriculum, as students who have taken the new curriculum begin to enter 2010 with a different set of skills and experience than students who did not take 1010 at USU. We also need to explore the possibility of greater standardization of the library component of English 2010, while still respecting the individualized curricula of English 2010 instructors.

- 4. Modify the Computer and Information Literacy (CIL) test and investigate ways to use this as a pre-assessment in English 2010.** The Library is currently investigating ways to make the information literacy portions of the CIL test, a graduation requirement, more robust. Currently students are only asked to conduct searches in the Online Catalog, the Web, and article databases. They are not required to know the differences between any of these tools. The Library would like to add questions to the CIL exam about the value of different kinds of information sources. Students need to be able to identify different kinds of information sources, not just navigate and conduct simple searches in common information retrieval tools. The CIL test also has the potential of serving as a pre-assessment for English 2010. If students were required to take the CIL test at the beginning of English 2010, instructors could identify students who need additional help and instruction. It would provide at least a baseline measurement that students have or have not achieved a minimal understanding of the different types of information sources for use in academic research and writing. Ideally, the information literacy portion of the CIL test should be matched to course-related goals in order to assess the skills and knowledge taught as part of the English 1010 curriculum.