

University Library System

HEDS Research Practices Survey Report Greensburg and Bradford Campuses Fall 2014 Administration

Report prepared by
Strategic Assessment Unit, ULS
15 March 2015

HEDS Survey

Higher Education Data Sharing (HEDS) Consortium is an independent, not-for-profit corporation, which administers Research Practices Survey. This survey is designed to collect information on the research experience of the students and to assess their information literacy skills. This information can be used to benchmark institutions, track progress and develop interventions aimed at increasing IL skills of students.

In the Fall term of 2014 a number of students on the Bradford and Greensburg campuses took the HEDS Research Practices Survey. This was a test run meant to decide whether we want to replace the previously used SAILS survey. The questions are based on the Association of College and Research Libraries' five information literacy competency standards. The freshmen's participation in the survey was voluntary, but various incentives were used to increase the response rate, such as gift cards or points for freshmen seminar.

Major Findings

The HEDS survey administered in Greensburg and Bradford revealed skill gaps in information literacy (IL) in our freshmen population. The major findings are:

- In general, freshmen's performance in Greensburg and Bradford was similar, with no statistically significant major differences.
- Overall, performance of our freshmen population was slightly, but consistently lower than that of students at other institutions who used HEDS.
- Virtually all students were required to write at least one assignment with three or more citations and in the vast majority of cases the use of a specific citation style, such as APA or MLA, was expected.
- Library anxiety is related to using the catalog, databases, or inter-library loan.
- Printed books and popular internet search engines are the preferred sources of information.
- Freshmen who often sought advice from high school instructors and librarians performed less well in terms of research skills and identifying the correct use of resources.

Recommendations for Future Assessment

- Conducting longitudinal surveys would enable us to evaluate the impact of instructional programs.
- In order to test the effect of information literacy skills on student performance, access to GPA scores would be useful.

Table of Figures

| | |
|---|----|
| Figure 1. Sample Size | 5 |
| Figure 2. Library Usage | 6 |
| Figure 3. Reasons for Using the Library | 6 |
| Figure 4. Taught how to use library resources | 7 |
| Figure 5. Format of Sources Used..... | 8 |
| Figure 6. Sources Not Used..... | 9 |
| Figure 7. Enjoying research..... | 10 |
| Figure 8. Course Assignments..... | 11 |
| Figure 9. Use of Specific Citation Style | 11 |
| Figure 10. Advice Seeking Behavior | 12 |
| Figure 11. Information Literacy Standard One | 19 |
| Figure 12. Information Literacy Standards Two and Three | 20 |
| Figure 13. Information Literacy Standard Five | 21 |

Table of Tables

| | |
|---|----|
| Table 1. Gender Distribution | 5 |
| Table 2. Research tools and resources | 10 |
| Table 3. Challenges to the Research Process..... | 14 |
| Table 4. Participating institutions and number of responses | 18 |

A total of 601 freshmen participated in the survey. The response rate for Bradford was 53%, and for Greensburg was 68%. The sample was composed of about 60% females and 40% males in Bradford, and about 58% females and 42% males in Greensburg.

Figure 1: Sample Size

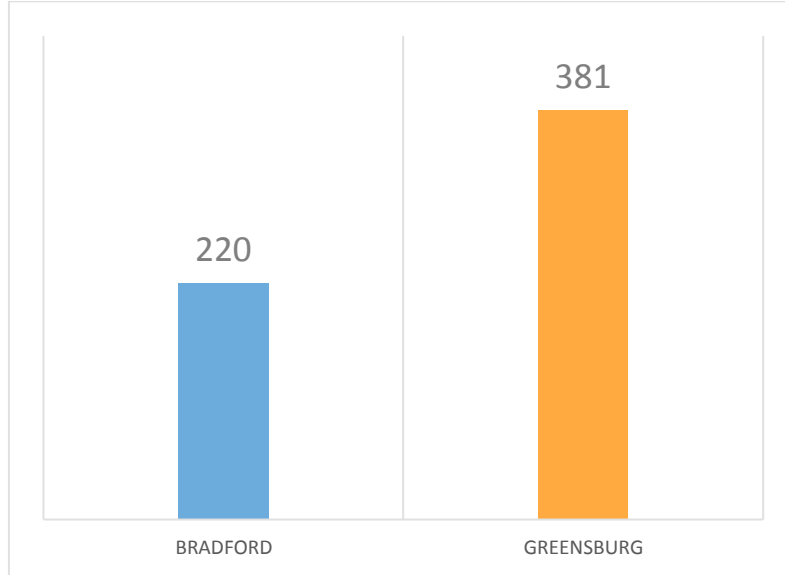
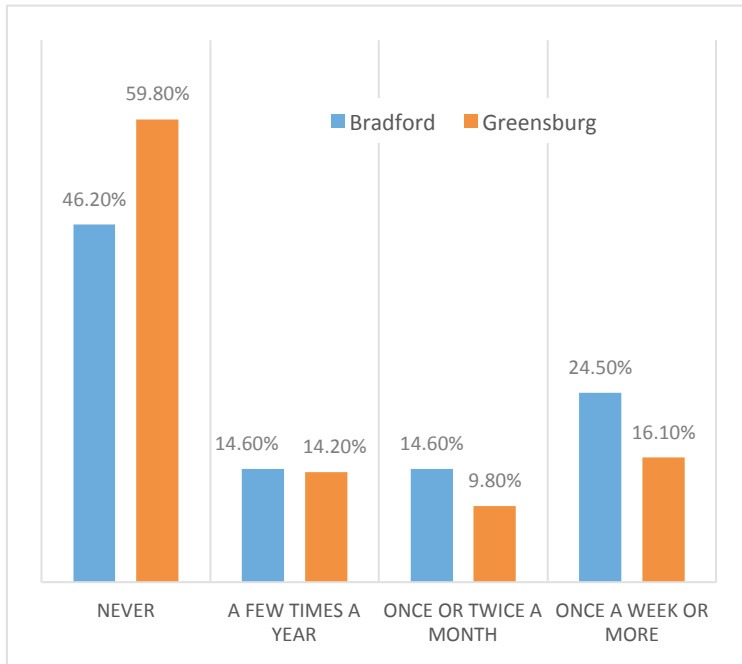


Table 1: Gender Distribution

| | Female | Male | Fill in: |
|------------|--------|-------|----------|
| Bradford | 131 | 87 | 0 |
| | 60.1% | 39.9% | 0% |
| Greensburg | 218 | 158 | 3 |
| | 57.5% | 41.7% | 0.8% |
| Total | 349 | 245 | 3 |
| | 58.5% | 41.0% | 0.5% |

Figure 2: Library Usage



One in five students use the college library once a week or more, on average.

In the most recent year, the top most frequent reasons to visit the library were: conducting research, studying, and recreational.

Figure 3: Reasons for Using the Library

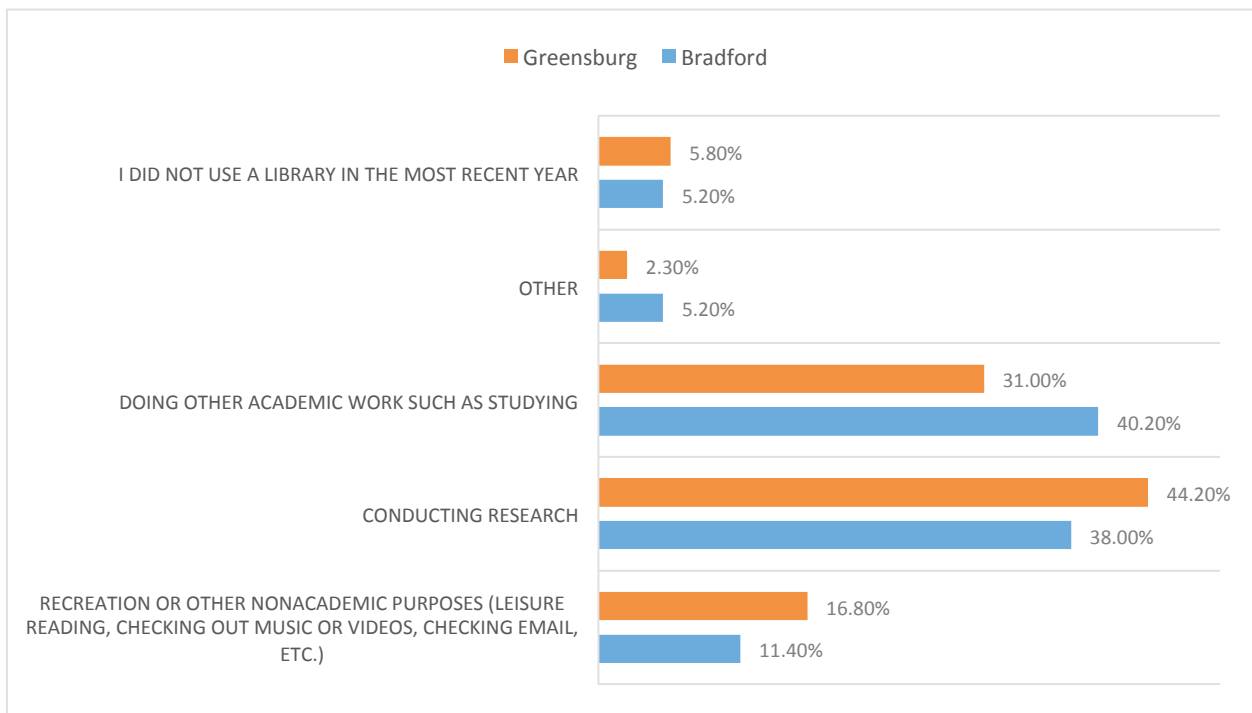
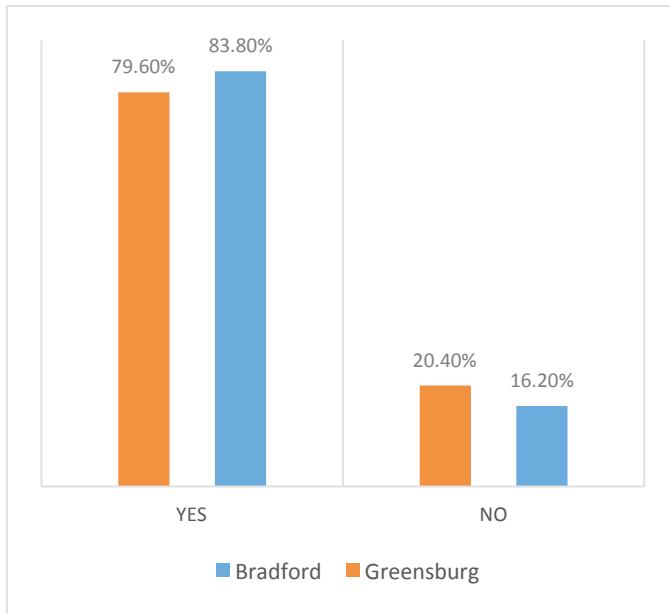


Figure 4: Taught how to use library resources

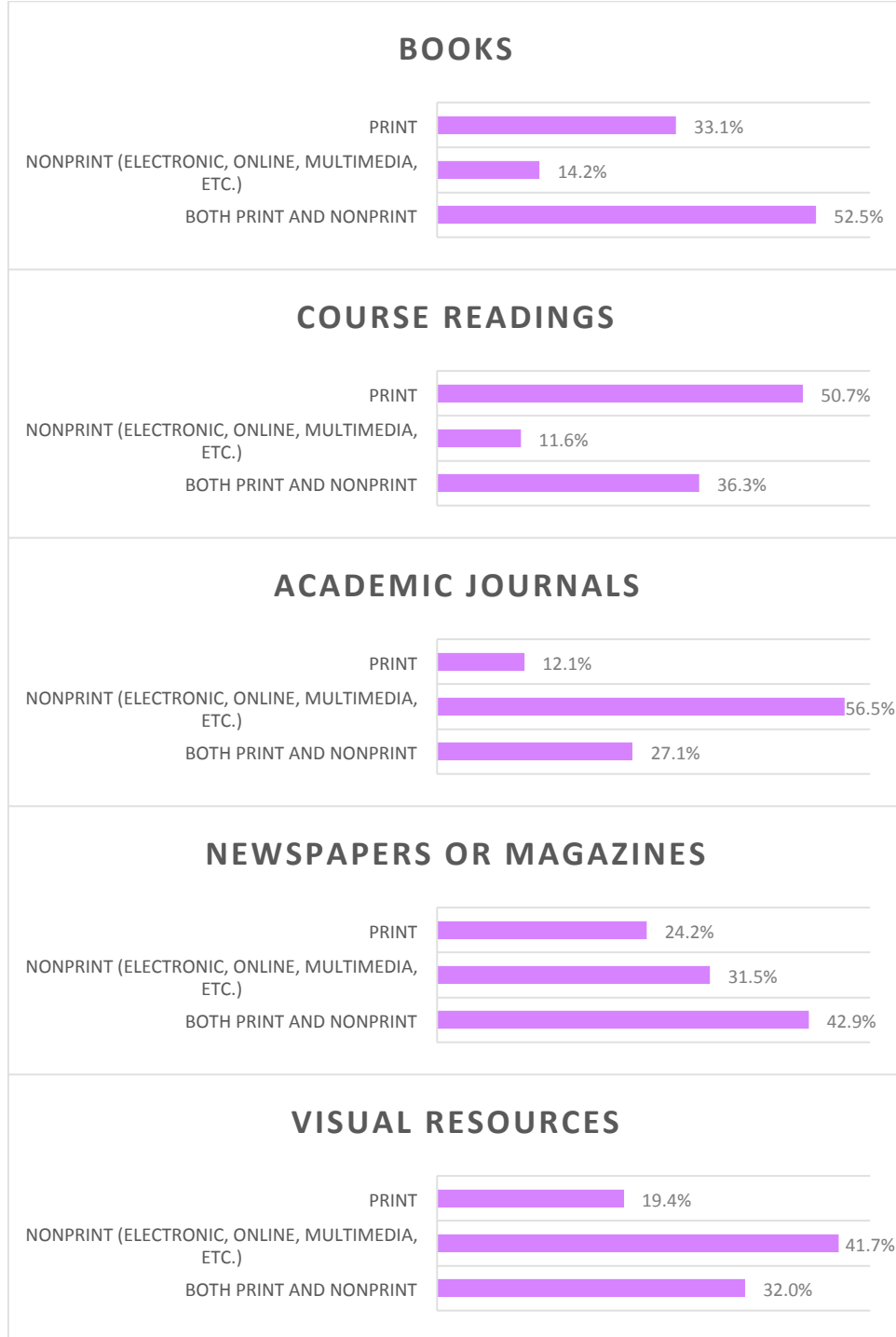


About four in five freshmen on both campuses were exposed, during their high school years, to some form of training on how to use library resources.

Those who received the training show a slight and statistically significant improvement in their scores for correct use of resources.

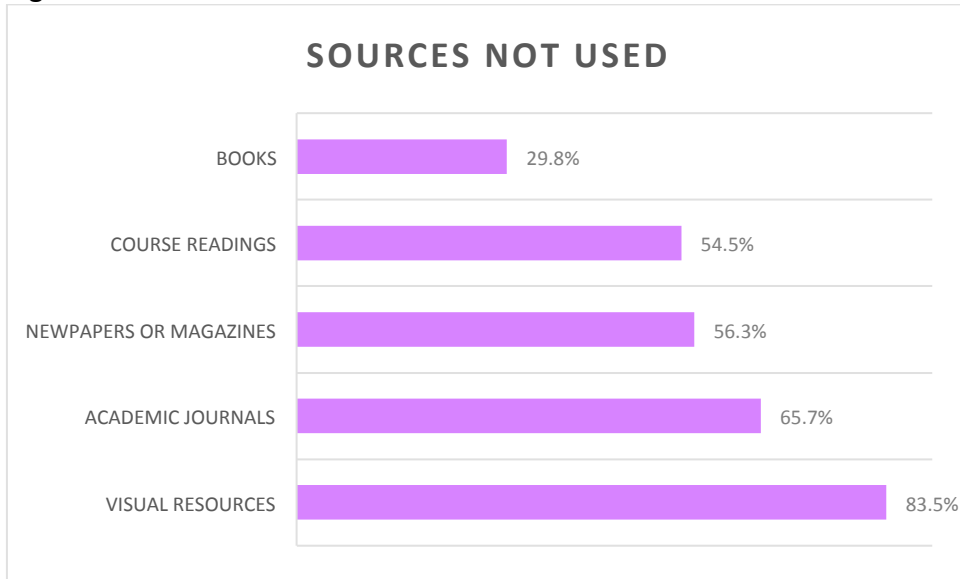
In the case of books and course readings, the tendency is to prefer print materials; in the case of journal articles and newspapers/magazines, the preference is for electronic resources.

Figure 5: Format of Sources Used



The previous graphs show valid percentages, which are computed without taking into account the students who did not offer any answer (system missing). Above are the percentage of people who did not answer the questions. These numbers could be interpreted as students who did not use a specific source. The preference for books is visible again.

Figure 6: Sources Not Used

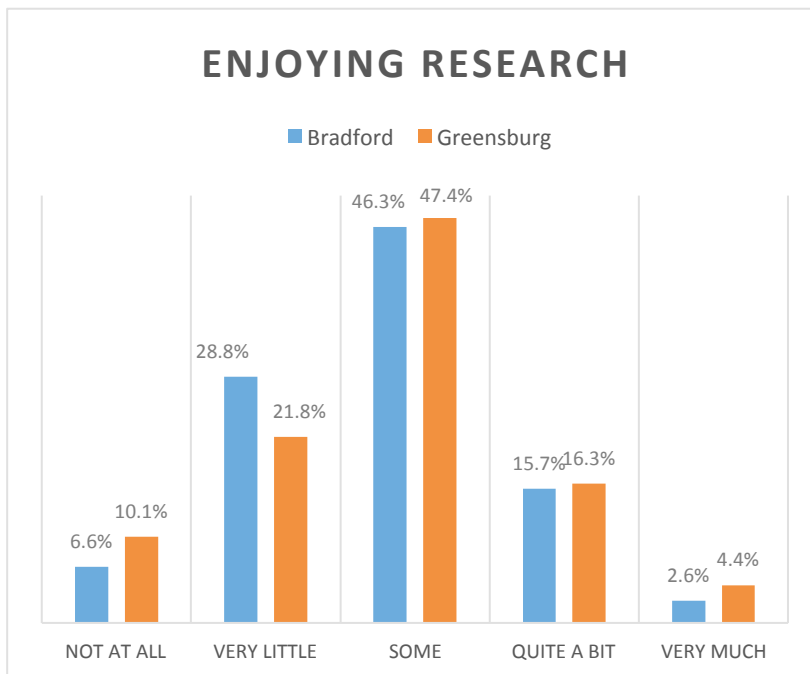


When doing research, the top search tools are the internet search engines and the most used resources are books.

Table 2: Research tools and resources

| Sources | % students who use them |
|--|-------------------------|
| Google, Yahoo and other search engines | 82.7% |
| Books | 73.1% |
| Encyclopedias and Dictionaries | 51.1% |
| Library catalog | 49.0% |
| Course readings | 47.4% |
| Newspapers or magazines | 44.9% |
| Online indexes and databases | 42.5% |
| Wikipedia | 40.4% |
| Academic journals | 36.1% |
| Google Scholar | 19.1% |

Figure 7: Enjoying research



There is a normal distribution of the preference for doing research on both campuses.

Virtually all students were required to write at least one assignment with three or more citations. In the vast majority of cases the use of a specific citation style, such as APA or MLA, was expected.

Figure 8: Course Assignments

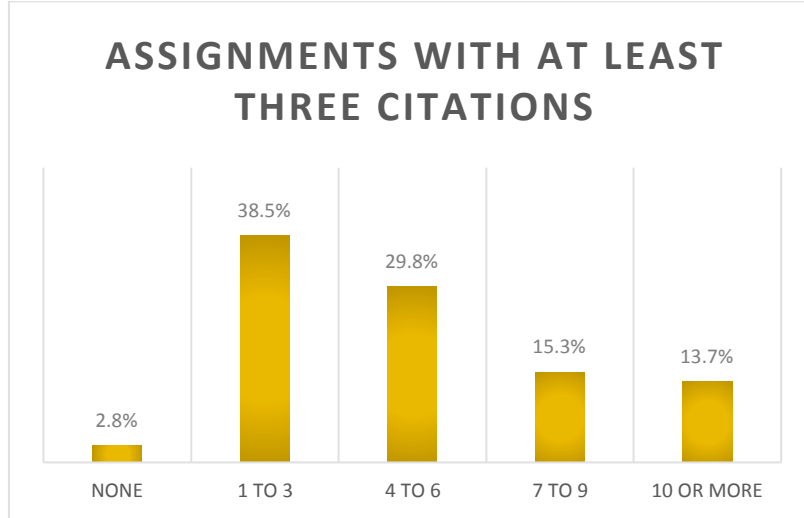
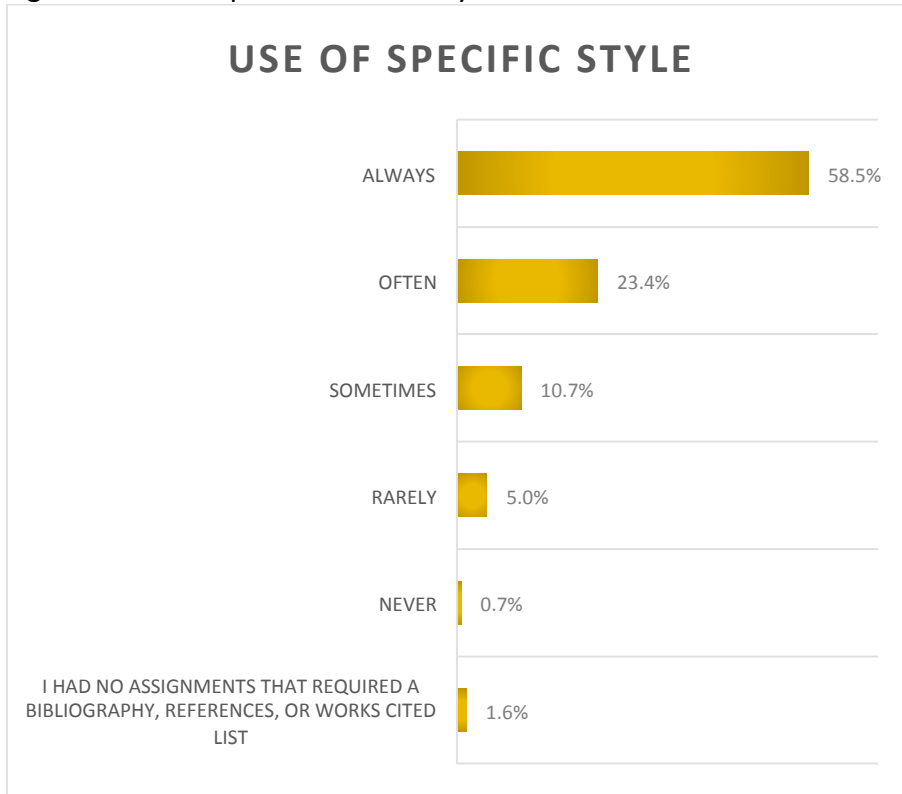


Figure 9: Use of Specific Citation Style



Assessing advice-seeking behavior

Freshmen declare that they seek help primarily from instructors and peers and significantly less often from librarians and parents.

Seeking advice from high school librarians or instructors was inversely correlated with performance. The more often students sought advice, the slightly lower, in a statically significant way, was their performance in terms of overall search skills. Their performance in terms of correct use of resources was also slightly lower, but not significantly.

Figure 10: Advice Seeking Behavior



Perception of research

Half of the students find it difficult to develop their main argument, thesis statement, or hypothesis. About one in four students (28%) finds it difficult to use the library catalog or has no experience using it. The most challenging features of the library are the “advanced” ones: 41% have no experience with databases or find it difficult using them. Two in three students (65%) find it difficult to use inter-library loan or have no experience using it.

The self-perception for more than half of the students is that it is somewhat easy and very easy to document your sources (63%) and to determine the credibility of the source (58.2%). However, only one in three students knew that examining the article’s references will most likely generate the largest list of additional relevant resources. Since they are somehow confused how to interpret references, it is not surprising to see that they do not look at an article’s reference list for generating additional references.

Those who are more skillful at searching for resources also tend to use them more correctly, i.e. understand better plagiarism, copyright, and bias issues. It is not clear for everyone what constitutes plagiarism. Not knowing when a citation is required is the main problem. Only two in five students correctly identified a fair use of copyrighted material and half of the students know when they don’t need a citation.

Table 3: Challenges to the Research Process

| CHALLENGES | No experience | Very difficult | Somewhat difficult | Somewhat easy | Very easy | |
|--|---------------|----------------|--------------------|---------------|-----------|--|
| Selecting a topic | 0.3 | 7.7 | 28.3 | 44.4 | 19.3 | |
| Using search tools to find possible sources | 0.7 | 2.3 | 19.3 | 52.9 | 24.8 | |
| Developing your main argument, thesis statement, or hypothesis | 0.2 | 10.0 | 39.0 | 38.8 | 12.1 | |
| Using evidence from your research to support your argument effectively | 0.3 | 3.4 | 31.2 | 47.8 | 17.3 | |
| Organizing your materials into a logical and unified structure | 0.2 | 5.6 | 31.6 | 42.4 | 20.3 | |
| Expressing your ideas clearly | 0.2 | 6.5 | 33.1 | 43.4 | 16.9 | |
| Documenting your sources | 0.5 | 8.6 | 27.5 | 40.1 | 23.3 | |
| Using a library catalog (whether print or online) | 10.4 | 2.8 | 15.1 | 42.6 | 29.1 | |
| Using a database (JSTOR, PubMed, PsycINFO, etc.) | 18.2 | 2.8 | 19.7 | 34.4 | 25.0 | |
| Using an Internet search engine | 0.3 | 0.5 | 5.6 | 18.3 | 75.2 | |
| Locating physical sources in library | 3.0 | 4.6 | 23.6 | 43.3 | 25.5 | |
| Obtaining full text of online sources | 3.0 | 4.0 | 27.4 | 37.1 | 28.5 | |
| Obtaining materials through inter-library loan | 36.0 | 4.9 | 24.0 | 22.5 | 12.5 | |
| Determining whether a source is credible | 1.6 | 6.2 | 32.5 | 41.9 | 17.7 | |
| Deciding what information from your sources to integrate into your project | 0.8 | 5.1 | 30.0 | 44.8 | 19.3 | |
| Knowing when you need to cite a source in text and in a bibliography | 1.3 | 8.9 | 28.0 | 35.7 | 26.2 | |
| Knowing how to cite a source in text and in a bibliography | 1.0 | 10.1 | 28.5 | 39.0 | 21.4 | |

INFORMATION LITERACY FINDINGS

Research Terms and Strategies

The majority of students understand an “AND” search but are slightly confused by the difference between “AND” and “OR” Boolean searches.

References

There is significant confusion about how to interpret references. About one in two knows how to interpret a journal article reference.

At most two in five students know how to interpret citations. Between 40% and 60% identify correctly a book, a book chapter, a journal article, or the volume of a journal. Similar statistics are observed for the ability to distinguish between primary and secondary resources.

Finding appropriate sources for research

The self-perception for more than half of the students is that it is somewhat easy and very easy to document your sources (63%) and to determine the credibility of the source (58.2%). However, only one in three students knew that examining the article’s references will most likely generate the largest list of additional relevant resources. Since they are somehow confused how to interpret references, it is not surprising to see that they do not look at an article’s reference list for generating additional references.

Only one in three students knew that searching a database would likely yield the most comprehensive list of scholarly articles relevant to a given topic.

Only one in five students correctly identified the source which is the least likely to be appropriate to cite in their research paper.

Students are confused about what constitutes a primary or a secondary source when the answer is not evident.

Copyright and Plagiarism

Only 40% correctly identified a fair use of copyrighted material and half of the students (49%) know when a citation is not required.

Information Literacy Questions

Standard One: The information literate student determines the nature and extent of the information needed.

Question 17. Which of the following statements about academic journals and popular magazines is INCORRECT?

Question 19. For each of the following, indicate whether the item is an entire book, a journal article, or a portion of a book.

Question 20. Researchers must distinguish between primary and secondary sources. Drag each source on the left into the box that best describes it on the right: primary source or secondary source. If you do not know the answer, drag the source into the box labeled “Don’t know.”

Question 22. A peer-reviewed or refereed journal is BEST described as:

Question 29. You are required to write a research paper for your American history class examining the roles of women in the American Civil War. An initial search turns up the following sources. Which source is LEAST likely to be appropriate to cite in your paper?

Standard Two: The information literate student accesses needed information effectively and efficiently.

Question 13. You are researching presidential speeches. What would you type into a database search to yield the most RELEVANT sources for your topic?

Question 14. If you type “psyc” into a database search, what types of search results would you likely get?*

*Question 15. Using a database search, you find the following article that is relevant to your anthropology project focusing on Korean American students:
Park, J. J. (2011). “I needed to get out of my Korean bubble”: An ethnographic account of Korean American collegians juggling diversity in a religious context. *Anthropology and Education Quarterly*, 42(3), 193–212.
Which of the following would most likely generate the largest list of additional relevant sources for your project?*

Question 16. You are searching for articles on any of the following US car companies: Ford, General Motors, and Chrysler. What would you type into a database search to yield the LONGEST LIST of relevant sources for your topic?

Question 18. You find the following entry in the References section of a recent article:

Erisman, H. M. (2002). The Cuban Revolution's evolving identity. Latin American Politics and Society, 44(1), 145–153.

In what issue of Latin American Politics and Society will you find this article?

Question 21. You have selected DNA structure as your topic for a Chemistry 331 research paper. Which of the following would likely yield the most comprehensive list of scholarly articles that are relevant to this topic?

Standard Three: The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

Question 27. An author makes the following argument: Students should be required to live on campus during their first year of college because this promotes better study habits. Assuming that all of the following statements are true, which statement BEST supports the author's argument?

Question 28. You are researching the health effects of marijuana. Which of the following websites likely does NOT contain biased information?

Standard Four: The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.

Standard Five: The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

Question 23. In a scholarly article or research paper, a citation is:

Question 24. A citation is NOT required when:

Question 25. Indicate if each of the following statements about plagiarism is TRUE or FALSE.

Question 26. Which of the following is considered fair use of copyrighted material?

Participating Institutions

The following institutions administered the same HEDS survey to their freshmen population in the fall of 2014. Our performance in Bradford and Greensburg was benchmarked against the average rate in the sample.

Table 4: Participating institutions and number of responses

| | # of Valid First-Year Respondents | Response Rate |
|-------------------------------------|-----------------------------------|---------------|
| Berea College | 270 | 55% |
| Bryn Mawr College | 62 | 18% |
| Centre College | 325 | 84% |
| Connecticut College | 259 | 51% |
| Hartwick College | 148 | 82% |
| Hope College | 212 | 25% |
| Juniata College | 122 | 29% |
| Mercer University | 233 | 29% |
| Principia College | 120 | 92% |
| St. Lawrence University | 326 | 54% |
| Transylvania University | 92 | 34% |
| University of Pittsburgh-Bradford | 220 | 53% |
| University of Pittsburgh-Greensburg | 381 | 68% |
| Wabash College | 42 | 16% |
| Washington and Lee University | 118 | 27% |