# Information Literacy Report

Harold Washington College Assessment Committee, September 2017

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## Executive Summary

Information literacy is a concept that is recognizable to most faculty and may seem easy to understand. However, the skills involved in developing information literacy are complex because they involve critical thinking as well as practical problem-solving skills. In 2014, The Harold Washington College Assessment Committee spent time examining a number of tools to assess the general education outcomes in Information Literacy and decided to adapt a tool from The Network of Illinois Learning Resources in Community Colleges (NILRCC). This tool was originally designed for first-year community college students. Notably, this was the committee's first general education assessment tool to be administered solely in an online form, and the use of this strategy proved effective.

It was found that students struggled with some very specific skills such as choosing the best search terms or the best non-website sources, while students excelled in other specific skills such as retrieving information via the library online catalog. More broadly, the findings have led the committee to determine that the tool may be an effective measure of information literacy skills in relation to the completion of English 102, but in order to be a more effective tool to measure the full range of general education outcomes in information literacy, it should be redesigned. In 2015, as a pilot, the committee administered the tool again on a smaller sample divided into three groups receiving different levels of intervention of teaching information literacy skills. No significant differences were found among the three groups. The committee concluded that the pilot sample was too small to generate useful data. From 2015 to 2017, HWC librarian Todd Heldt created a series of information literacy teaching tools to share with interested instructors. Finally, in January 2017 and again in September 2017 Todd Heldt did a presentation to the HWC faculty about the importance of information literacy, this history of assessing information literacy and HWC, and suggestions for how to move forward in considering information literacy in general education.

# History

In 2003 the Harold Washington College (HWC) Assessment Committee (AC) administered its first ever general education assessment tool, specifically in critical thinking. Since that time we have assessed a different general education outcome each year from the following list according to a cyclical Master calendar.

- Critical Thinking
- Effective Communication (Information and Computer Literacy, Oral, and Written)
- Human Diversity
- Humanities and the Arts
- Natural Sciences
- Quantitative Reasoning
- Social Sciences

The general education goal of information literacy, which is categorized under the broad heading of effective communication, was last assessed in 2004 using a proprietary tool called SAILS (Standardized Assessment of Information Literacy Skills). Project SAILS provided analysis which indicated that HWC students scored about the same as four-year college students on overall information literacy skills. On some specific skills such as selecting search terms, documenting sources, and knowledge about scholarly communication, HWC students scored better than students from four-year colleges. One disadvantage of using SAILS was that of the 43 institutions used for comparison, only two others were community colleges. A detailed summary of results can be found in the 2004 Information Literacy Report.

# Methodology

Ten years later, in 2014, we decided to keep our general education goal the same, yet we updated our student learning outcomes (SLOs) with inspiration from the American Library Association (ALA). We also decided to work from a definition of Information literacy provided by the ALA. We like to call all of this the frame, which is made up by the general education goal, definition, and student learning outcomes. Here is the full frame we used for 2014.

**Frame**

*General Education Goal:* To communicate effectively, orally and in writing, and use information resources and technology competently.
*Definition:* A set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information (ALA, 2017).
*Student Learning Outcomes:* The student will be able to…
1. Determine the nature of the information needed in a given context.
2. Identify available resources of different types (e.g., books, journal articles) and formats (e.g., print, electronic).
3. Access and navigate information resources and services effectively.
4. Evaluate sources of information based on standard criteria (e.g., accuracy, authority, reliability, and relevance).
5. Organize new information efficiently and integrate it with other information or material.

6.  Distinguish between ethical and unethical uses of information (e.g., source attribution, intellectual property).
    (ALA, 2017).

For comparative purposes, the committee's SLOs from 2004 are listed below:

*Student Learning Outcomes:* Upon completion of an Associate degree, the information literate student:
1.  Determines the nature and extent of the information needed;
2.  Accesses needed information effectively and efficiently;
3.  Evaluates information and its sources critically and incorporates selected information into her/his knowledge base and value system;
4.  Understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.
    (HWC Assessment Committee, 2004).

**Tool Design**

After using a proprietary tool in 2004 that focused more on four-year colleges than we would have liked, we looked for an option with a better fit for us in 2014. We looked again at SAILS, but saw no evidence that it had changed focus. Furthermore, the $4 cost per student turned us away. We would have considered paying for a tool that fit our goals really well, but under the circumstances it did not seem worth the extra cost to us. We also looked at an organization called Madison Assessment, which offered an information literacy tool for $8 per student, yet this higher cost turned us away even more.

In our search for open source tools we happened to find one developed by NILRC (Network of Illinois Learning Resources in Community Colleges) with support from IMLS (Institute of Museum and Library Services). It was originally designed for first-year community college students and contained a mix of personal questions on research practices, and skills questions about various aspects of information literacy. We obtained permission from NILRC to adapt the tool to our own needs. Throughout the Spring of 2014, HWC librarians John Kieraldo and Todd Heldt chose appropriate questions from the NILRC and modified them as needed. AC secretary, Jeffrey Swigart helped with the overall management of the project, and the committee as a whole did much work in final editing. In the end, we produced an adapted tool that kept the same basic format as the original NILRC tool with an added demographics section. Our resulting tool, which can be found in full in the appendices, contained the following sections:

- Section One: 7 questions on self-reported research practices
- Section Two: 10 questions on various information literacy skills
- Section Three: 10 questions on self-reported demographics

**Pilot**

Toward the end of the Spring 2014 semester, committee members volunteered to take the assessment as a group. Even though we had all helped in editing, our scores on the skills questions were far from perfect. This prompted rich discussion on how we could improve the wording of some questions. Yet many of us also realized that information literacy was a more complex topic than we realized.

During the summer of 2014 we converted the tool from a Microsoft Word document to a Google Form. We ran a pilot with 67 students. The purpose was not to analyze the results, but to determine if there

were any technological issues. We sent the link to instructors who had volunteered to share it with their students via email or via Blackboard, which is the learning management system that HWC uses. The Google Form worked well as a method for administering the assessment.

**Implementation**

In early fall of 2014, we made some minor edits to the tool, and then administered the full assessment using the Google Form to collect data throughout the late fall. We invited faculty to volunteer to administer the tool as faculty had done during the summer pilot. We also shared the link via college-wide emails to students, staff, and instructors. In addition, we offered to set up a computer lab for students to take the assessment during class time if that is what the instructor preferred. However, no instructor chose this route. It appears that most instructors invited students to complete the assessment outside of class time.

At HWC, it is our practice that all assessment participation should be voluntary. We do not force students to participate or force instructors to volunteer their students. We believe this helps to uphold a positive culture of assessment at HWC. Yet, we were also focused on getting a large enough sample to have less than 5% margins of error and above a 95% confidence level. This is why we we tried to target volunteer instructors rather than just sending out college-wide emails. We expected that our targeted volunteers would be the source of most of our student participants. The committee expressed some concern that this voluntary approach biases our sample into being a bit of a self-selected sample. In fact, this is an ongoing concern of the committee. However, as with all assessments administered at HWC, we aim for a representative sample of students from a range of courses taken in various formats across our curriculum. These concerns are explored on an annual basis, yet after considerable discussion the committee continues to believe that the benefits of voluntary participation outweigh the potential challenges with the data.

Some instructors chose to offer extra credit to students for participating, and a printable receipt at the end of the tool allowed students to prove they had completed it. The receipt also protected against students taking the tool multiple times for multiple classes. If a student was asked by two instructors to complete the tool, they could simply show the receipt to the second instructor. Students were allowed to complete the tool wherever they liked, such as at home, on campus, or somewhere else. A statement at the beginning of the tool asked students to work honestly from their own previous knowledge without using other sources.

Notably, this was our committee's first general education assessment to be administered fully electronically. For many years the AC had successfully used a system of proctoring, which involved reserving space in computer labs, scheduling the volunteer faculty who would bring their students to these labs, and staffing the labs with AC members to facilitate the process. Despite the many advantages of proctoring, the main disadvantage was the almost unsustainable time commitment it required from our committee members and the time away from class for the students. In response to this challenge, the committee decided to try a streamlined process that better allowed us to work on other projects even while gathering data for this assessment.

# Findings

**Validity**

We had 926 students sign on to take the assessment while 780 completed the assessment fully. Our original set of volunteer classes came from 36 instructors from eight academic departments.

The sample was compared to the population, drawn from enrollment data, in terms of gender, age, ethnicity/race and part-time vs full-time status. There was no statistically significant differences in these distributions. Based on these results it was determined that stratifications methods would not be necessary and the sample could be analyzed as it was acquired.

**Skills Questions**

On the ten skills questions from section two, numbered 8 through 17 on the tool, the data was normally distributed with a mean percent correct of 46.40% and a standard deviation of 19.60%. The Cronbach Alpha was 0.4647, suggesting a poor overall reliability if this survey would be repeated. This reliability problem could be improved in the future by increasing the number of questions or reducing the number of student learning outcomes the tool assesses .

The graph below shows the overall score distribution on the ten skills questions.
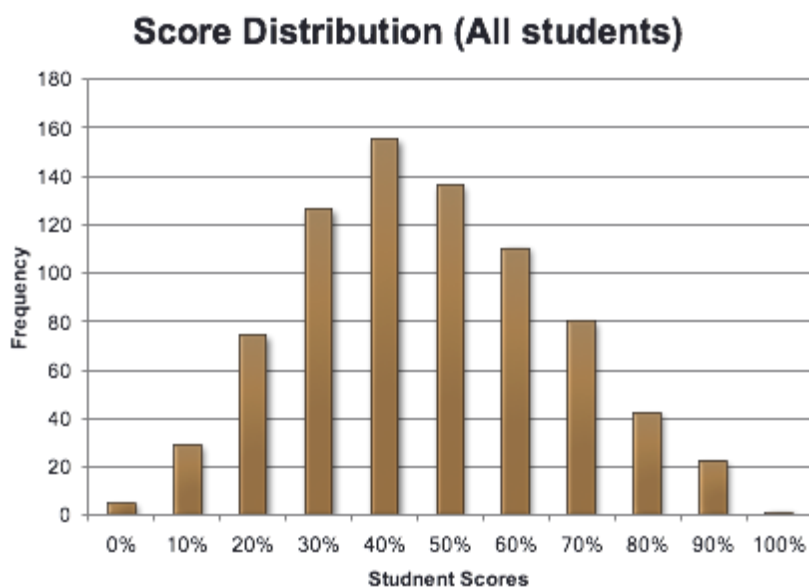


The individual skills questions had a wide range of success rates, with the lowest success question having 7.6% students answering correctly and the highest success question having 75.7% students answering correctly. The table below shows the percent correct and point biserial for each of the ten skills questions.

| Question | % Correct | Point Biserial |
|---|---|---|
| 8. For an MLA research-based paper, what is a Works Cited page? | 61.8% | 0.49 |
| 9. Using the above citation, determine the name of the library subscription database that the journal article is from. | 48.7% | 0.39 |
| 10. Using the same above citation as the previous question, determine the article's year of publication. | 73.8% | 0.47 |
| 11. You are asked to write a three-page research paper on the following question: "Should colleges be allowed to restrict student speech?" Which of the following two keywords entered into a search engine will most likely give results relating to your research question? | 39.4% | 0.57 |
| 12. Suppose you need to write a 5-page report on Abraham Lincoln's struggles to enact legislation. Based on the title, which of the following books will most likely give you the information you need? | 7.6% | 0.11 |
| 13. You are helping a friend who is new to college to learn about medical viruses for a presentation she is doing for her English class. Which publication would you suggest that she use to learn more about viruses? | 22.7% | 0.32 |
| 14. Which of the following is the most important piece of information needed for locating the book on the shelf? | 54.7% | 0.51 |
| 15. The book you need for class has the call number: PS 2602 1996. On which shelf is this book? | 48.3% | 0.50 |
| 16. This question refers to the following situation. You are writing a research paper for your history class exploring whether or not George Washington had wooden teeth. You have decided to use the following four search terms in your search: George, Washington, wooden, teeth. After entering your search terms (George, Washington, wooden, teeth) into a Web search engine, you retrieved the results below. Which of the four listed results would most likely contain the best information for your history paper? | 75.7% | 0.43 |
| 17. You are writing a report on automobile tires and safety. You have found several sources. Which would be most likely to provide unbiased, factual information? | 31.6% | 0.40 |

Notice students did well on basic concepts of citations (questions 8 and 10), library catalog entries (questions 14 and 15), and website sources (question 16). Yet, students struggled with more advanced concepts of citations (question 9), search terms (question 11), non-website sources (questions 12 and 13), and recognizing bias (question 17). These findings suggest that our students demonstrate clear strengths and challenges in specific information literacy skills.

The point biserial can be interpreted as how well one question predicts an individual's overall score, with 0 to 0.2 having no correlation, 0.2 to 0.4 having low correlation, and 0.4 to 0.6 having moderate correlation. A low point biserial means that many participants who get high scores overall are not any more likely to perform well on that one question. It could mean that what is being tested in this specific question is not being tested in other questions on average. Keeping such questions in a survey can sometimes increase participants' interest and willingness to respond, but it can also reduce validity.

Notice that question number 12 (on Abraham Lincoln) has an extremely low point biserial. Interestingly, 3.4% of students chose what was meant to be the throw-away incorrect answer of "Abraham Lincoln: Vampire Slayer". This could have been purposeful if it gave some students a sense of enjoyment to select an answer they found humorous or obviously incorrect, or it could have been because the question was overly difficult.

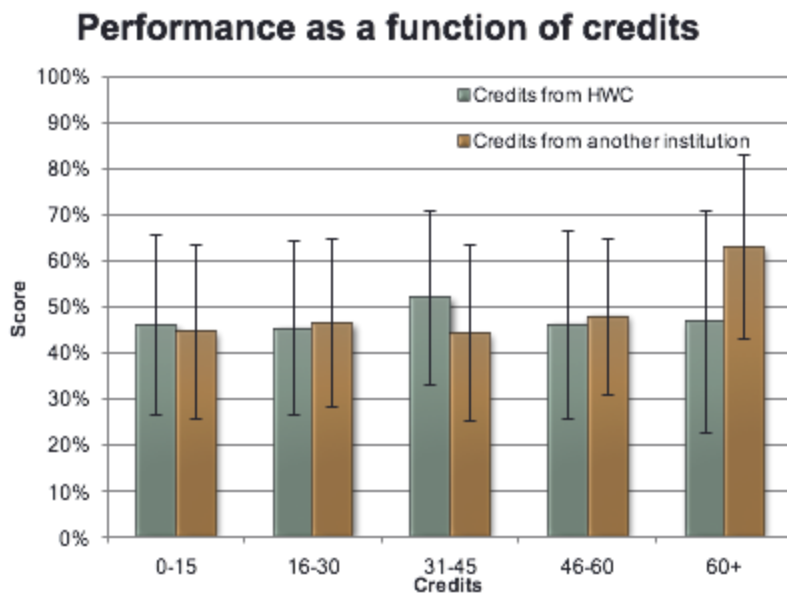**Comparing Demographics and the Skills Questions**

For question 11 on choosing the best search terms for researching if colleges should be allowed to restrict student speech, there was a moderate gender dependency and weak ethnicity dependency . For question 17 on choosing the most unbiased source for writing a report on automobile tires and safety, there was a moderate age dependency. For future uses of this survey, these two questions should be rewritten with more universal themes to avoid such dependencies. It is our practice to use demographic information solely for the purpose of determining a representative sample of the population. In general,

## Performance as a function of English Level
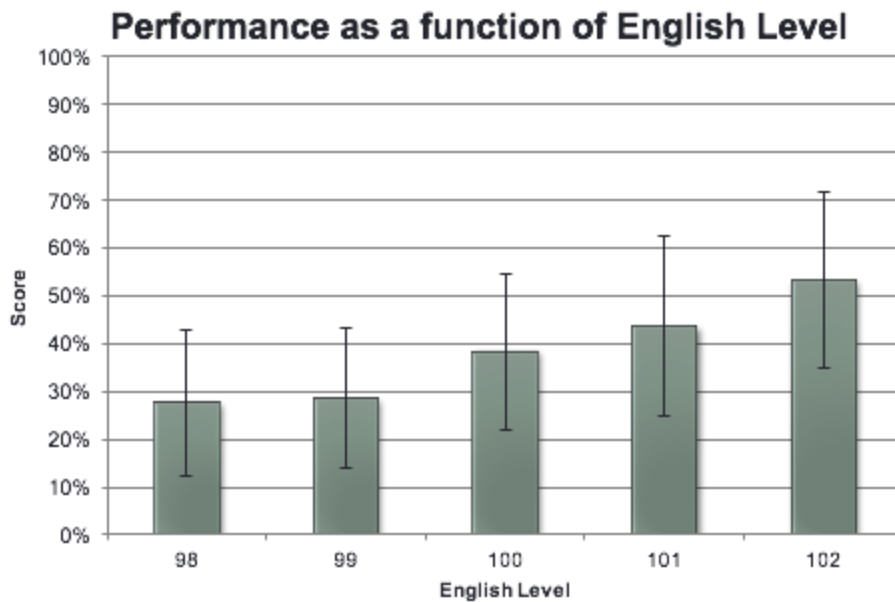


we do not use demographic information to compare results among demographic groups. However, the committee chose to examine these dependencies in order to understand whether or not they indicate bias in the questions.

**Comparing Academic History and the Skills Questions**

The graph below shows performance on the skills questions compared to college credits taken. There was a correlation of 0.03 when comparing HWC credits taken to the overall skills score, and a correlation of 0.22 when comparing credits from other institutions to the overall skills score. These correlations remained similar when excluding 60+ credits. This is reasonable when comparing to other two-year colleges. There is no statistically significant difference between these categories except for 60+ credits. This is to be expected as students in this category may have earned bachelor's or master's degrees.

## Performance as a function of credits



The next graph shows performance on the skills questions compared to the highest level of English completed by the student in a previous term. There was a moderate correlation of 0.39.

**Comparing Research Practices and the Skills Questions**

There were no strong correlations found between the overall skills score and the research practice questions asking about student confidence. This could mean that students' self-reported confidence is disconnected from their actual skill level when it comes to concepts such as citations. Here are some examples to illustrate.

- In comparing students' self-reported confidence in formatting citations using APA/MLA on a works cited page or reference list and the overall skills score, the correlation was 0.1.
- In comparing students' self-reported confidence in formatting citations using APA/MLA on a works cited page or reference list and the individual skills question asking what a works cited page is, the correlation was 0.08.
- In comparing students' self-reported confidence in formatting citations using APA/MLA in text parenthetical citations and the overall skills score, the correlation was 0.12.
- In comparing students' self-reported confidence in formatting citations using APA/MLA in text parenthetical citations and the individual skills question asking what a works cited page is, the correlation was 0.13.

The results were more interesting when comparing the overall skills score to the self-reported research practices questions about what sources students use. To investigate this question, we explore the correlation between the following question "When selecting sources, do you take into account the authority or credibility?", and the resources students use to find information. The point biserial correlations between this questions and the potential sources for information were:

- Library database: 0.28

- Books in library: 0.23

- Google Scholar: 0.14

- Google 0.01

- Wikipedia: -0.16

These results indicate that students evaluated the list of sources and have opinions on their degree of authority and credibility. Library databases were the highest correlated with this question, while Wikipedia was negative. In this case, the negative value, even though considered having no correlation, was mapped to a source that most instructors would not consider to be a reliable source.

The chart below shows correlations in comparing students' chosen sources with each other. Negative correlations show a tendency of students who answered yes to the use of one source not to the use the other. For example, students who tend to use Wikipedia tend to also use Google but not books in the library, Google Scholar, or library databases. This speaks to research habits of our students.

| Correlations Among the Questions on Sources | | | | |
|---|---|---|---|---|
| | Google | Google Scholar | Library Databases | Wikipedia |
| Books in Library | -0.10 | 0.19 | 0.38 | -0.10 |
| Google | - | 0.05 | -0.15 | 0.25 |
| Google Scholar | - | - | 0.37 | -0.09 |
| Library Databases | - | - | - | -0.23 |

To complicate matters, it's important to note that there are some credibility and authority problems with Google Scholar. At the same time, Wikipedia is considered to be as accurate as any encyclopedia on

any given day even though at any given moment it could be wildly erroneous. We cannot know if the Google Scholar sources a student has used in the past are credible, authoritative, or unbiased just as we cannot know that the Wikipedia articles they've consulted were dubious.

**Repetitive Questions**

Interestingly, in comparing the two skills questions on formatting citations on a work cited page and formatting citations in text, there was a very strong correlation of 0.83. This indicates that students who learn one of these skills tend to do well on both questions. However, this could also mean that these two questions are repetitive and perhaps one should be taken out.

## Closing the Loop

The committee uses the phrase "closing the loop" to mean looking for effects that our efforts have had on student learning. The following discussion therefore involves committee activities after our original data collection and analysis from fall 2014.

**Follow-up 2015 Implementation**

In Spring of 2015, the AC made the decision to design a small action research plan. We put the call out for faculty volunteers to collect data using the information literacy tool again, but on a much smaller sample of 243 students, divided into three groups as shown below.
- Group A: These students received intensive information literacy training within a dedicated course.
- Group B: These students received some light information literacy training through attended two library instruction sessions
- Group C: These students were a control group receiving no extra information literacy training.

Group A comprised students from a library and information science class, specifically LIS 105 Information Literacy Basics. The class content included much focused training on information literacy. For group B, the AC gathered a small group of non-library instructor volunteers who agreed to bring their students to two library sessions and use some teaching materials on information literacy provided by the committee throughout the semester, and then they agreed to administer the information literacy tool at the end of the semester. These instructors were given access to the tool ahead of time. For group C, we gathered volunteer faculty members who agreed to do nothing extra regarding information literacy, and they simply administered the tool to their classes at the end of the semester. It is important to note that this was all very experimental. This was the first time the AC ever tried something like this. Never before had we done an immediate follow-up of an assessment by involving instructors directly, with the explicit goal of faculty to improve specific student learning outcomes before administering an assessment tool.

The table below shows a comparison of the three 2015 groups with the one big group from 2014.

| Group | Samples | Mean Skills Score | Standard Deviation |
|---|---|---|---|
| 2015 A: Intensive Training | 16 | 45.2% | 16.6% |
| 2015 B: Light Training | 51 | 48.4% | 19.0% |
| 2015 C: No Intervention | 176 | 47.8% | 19.1% |
| 2014 One Big Data Set | 780 | 46.4% | 19.6% |

At α = .05 there was no statistically significant difference between any two groups. The graph below shows a comparison of just the 2015 groups, and again, at α = .05 there was no statistically significant difference between any two groups.

**Mean Scores on Multiple Choice Questions**
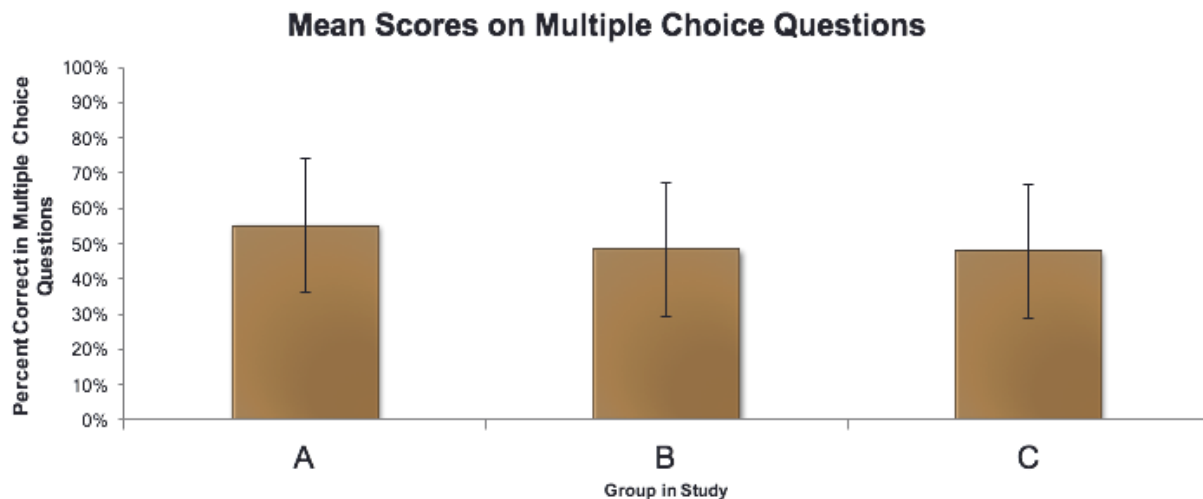


More specifically, in an analysis of covariance (ANCOVA), no statistically significant differences were found between 2014 and 2015 in confidence, research habits, or credibility consideration. This perhaps shows that more holistic intervention over a longer period of time would be necessary to make a difference in information literacy skills. It also perhaps shows that our sample was too small to find any big discoveries. In retrospect, the committee concluded that in order to do a meaningful action research plan, the committee should provide professional development for faculty before beginning the project. In addition, although the committee provided guidelines to faculty, it may have been helpful to provide ongoing facilitation of the process in order to support faculty throughout the semester. This was our first attempt to directly close the loop by using assessment findings to drive curricular and pedagogical change. This is a good direction as the main purpose of assessment is to improve student learning outcomes. It will be interesting to explore action research in the future as a mechanism for closing the loop. As Craig (2009) states, "unlike research that produces findings without action, the spiral and cyclical research process leads to action and improvement".

**Other Recent Work**

During the Spring of 2015, HWC librarian Todd Heldt developed a series of information literacy teaching materials as a response to the assessment tool we had just administered. They included the following:
- Composing a Basic Search Strategy
- Creating an Annotated Bibliography
- Figuring Out What You Already Know
- How to Narrow Your Research Topic
- Information Timeline
- Usable Source Rubric
- What Do You Do When Activity

They are included in the appendices, and they can also be found here:
http://www.ccc.edu/colleges/washington/departments/Pages/hwc-assessment-info-lit.aspx

In January of 2017 at an HWC faculty development gathering, Todd Heldt presented on the importance of information literacy as a response to the problem of recognizing fake news. The presentation slides can be found here:
https://www.dropbox.com/sh/jho6pu8pky5b6b9/AAD9IkEePVZ7DagcpZhwHpuHa?dl=0&preview=11-1145_Information+Literacy+in+a+Post-Truth+World.pdf

Also, in February of 2017, Todd Heldt and Carrie Nepstad presented at the 21st Annual Illinois Community College Assessment Fair, "Information Literacy in a Post-Truth World". The notes for this talk can be found here:
http://lis101.com/wp-content/uploads/2017/02/21st-Annual-Illinois-Community-College-Assessment-Fair-Text.pdf

## Recommendations

Based on data collected for this assessment, the AC recommends:

1. The library create and teach workshops focused on specific skills such as, a) refining search terms, b) using a variety of sources including books in the library, Google Scholar and library databases, c) writing proper citations, d) recognizing bias in sources, and e) recognizing fake news (Domonoske, 2016).
2. Instructors assign mandatory library workshops such as those listed above in order to build more opportunities for students across the curriculum to strengthen information literacy skills and to consider their importance.
3. Instructors and librarians provide opportunities for students to self-assess information literacy skills in order to build a stronger connection between students' confidence and actual skill level. This can be done using quizzes or discussion in class that include a reflective component as students consider various skills and then compare their own skills to correct answers or appropriate approaches.
4. In course design, instructors should explicitly embed teaching information literacy skills, including avoiding fake news, into various classes and programs. There was no correlation with credit hours when looking at these results, a point of evidence that concerned the committee. However, it was uncovered in the following year's assessment that this lack of correlation is due to the multiple entry points into the AA and AS degrees, as well as how to weight individual courses. When accounting for these effects, correlations increase.
5. For future assessments, the AC should explore using Openbook in conjunction with Student IDs in order to ascertain correlations between courses completed and assessment results. In this assessment, students self reported their highest level of english course. This is most likely due to the research paper component in English 102 and the scaffolding that leads up to it in English 101. In the future, it may therefore be useful to gather assessment data for information literacy outcomes that are associated with outcomes for English 102.
6. Improve the reliability of future assessments by reducing the number of student learning outcomes assessed or increasing the number of questions in the tool.
7. If the AC chooses to do another action research project the goals should be clear in terms of whether or not we are collecting data in order to make comparisons between a control group and other groups that include levels of intervention. If so, the AC should a) invite more participation in order to gather a larger sample size, b) include clear guidelines for faculty in terms of the goals for participation, and c) offer ongoing support to faculty throughout the process.

8. Continue to explore opportunities for faculty members to create teaching materials and give presentations in response to assessments, such as Todd Heldt. The conversation that this assessment spurred between the AC and HWC librarians has been exciting and will hopefully lead to more aligned SLOs between general education and the content of library information sessions.

9. Revise the Information Literacy SLOs to stand alone so they are no longer embedded within the Communications outcomes. Another option is to consider stand alone Information Literacy SLOs as a replacement of critical thinking. In addition, the AC can consider including information literacy components to future assessment tools such as Diversity, Humanities, Social Science, etc.

10. Once the SLOs are revised, the AC must revise the Information Literacy tool and explicitly show the connection between the SLOs and the tool.

## Conclusion

In many ways, this assessment process generated innovations for the AC. This was the first tool that was fully administered online and did not include a face-to-face proctoring schedule. This was also the first time the AC collected student IDs directly from students in an effort to reduce the number of questions asked regarding their academic history. This is also the first time the AC attempted a direct intervention using assessment data to drive an action research project in an effort to more directly close the loop of assessment data to teaching. For the future, the AC will need to revise the Information Literacy tool to include more questions directly linked to the student learning outcomes. Before that, the HWC community should consider information literacy as a stand alone general education objective with a place on the master assessment calendar.

We learned a great deal from this experience and it has taken some time to process all that we have learned. The data itself has been less revealing about student learning than we would hope, but through this experience we know more about how to revise the tool, and how to more effectively run this assessment next time. We can also make informed decisions about how to attempt an intervention using assessment data in the future. Finally, this process has informed the analysis process as we are continuing to refine the use of OpenBook for data analysis.

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# Appendix A: Information Literacy Tool

**Intro:**

IMPORTANT NOTE: IF YOU HAVE ALREADY TAKEN THIS ASSESSMENT, PLEASE DO NOT TAKE IT AGAIN.

Thank you SO MUCH for volunteering to participate in the HWC Information Literacy Assessment of 2014.
Your participation will help to inform curriculum development, pedagogical practices, and policy decisions at Harold Washington College. Your responses will remain anonymous and will only be used in the aggregate.

Please answer the following questions honestly and based on your own knowledge, without any help from other people or resources. The assessment should take about 15 minutes. We hope that you will complete the entire survey, but you have the right to stop answering questions at any time.

The following questions are based in part on a tool created by NILRC (Network of Illinois Learning Resources in Community Colleges) with funding from IMLS (Institute of Museum and Library Services).

If you have questions or concerns about this assessment process, please contact Carrie Nepstad, Chair of the HWC Assessment Committee at cnepstad@ccc.edu or call 312-553-6095.

I have read the above statement and consent to continue. (Fill in This Bubble to Show Consent)  ○

**Research Practices:**

1. Rate your confidence in your ability to find the information you need using technology. (Not at All Confident, Slightly Confident, Moderately Confident, Very Confident, Extremely Confident)

2. When selecting sources of information for a research paper, do you take into account the authority or credibility of the source before you decide whether to cite it in your work? (Never, Rarely, Sometimes, Usually, Always)

3. When needing to do research, how often do you use each of the following:

    a. Books in a library (Never, Rarely, Sometimes, Usually, Always)

    b. Google (Never, Rarely, Sometimes, Usually, Always)

c.  Google Scholar (Never, Rarely, Sometimes, Usually, Always)

d.  Library Databases (Never, Rarely, Sometimes, Usually, Always)

e.  Wikipedia (Never, Rarely, Sometimes, Usually, Always)

4.  Rate your confidence in the following skills:

a.  Formatting citations using MLA or APA style on a works cited page or reference list. (Not at All Confident, Slightly Confident, Moderately Confident, Very Confident, Extremely Confident)

b.  Formatting MLA or APA in-text parenthetical citations. (Not at All Confident, Slightly Confident, Moderately Confident, Very Confident, Extremely Confident)

5.  What have you used library databases to find? Choose as many as apply, or leave blank if none.
    a.  Academic journals (such as from EBSCO or JSTOR)
    b.  Biographical information (such as from Current Biography)
    c.  Digital images (such as from ARTstor or CAMIO)
    d.  Ebooks (such as from Opposing Viewpoints or EBSCO)
    e.  Information from encyclopedias or dictionaries (such as from Gale Virtual Reference Library or Oxford English Dictionary)
    f.  Literary criticism (such as from Gale Literature Resource Center)
    g.  Newspapers or other periodicals (such as from Proquest)

6.  What resources have you used to read or download an ebook? Choose as many as apply, or leave blank if none.
    a.  Amazon.com
    b.  Archive.org
    c.  EBSCO Ebooks
    d.  Google Books
    e.  Opposing Viewpoints
    f.  Project Gutenberg
    g.  Other (textbox)

7.  What resources have you used to help with formatting citations? Choose as many as apply, or leave blank if none.
    a.  Citation Machine Web site
    b.  Help from instructor
    c.  Help from HWC Librarian
    d.  Help from HWC Writing Lab
    e.  Purdue OWL (Online Writing Lab) Web site
    f.  Style Manual (APA, Chicago, MLA, etc.)
    g.  Other (textbox)

**Knowledge:**

8. For an MLA research-based paper, what is a Works Cited page?
    a. A list of the sources that were found when the writer researched his/her topic.
    b. A list that shows which sources were included and documented in the paper.
    c. A list that shows the descriptions of the sources that the writer used.
    d. A list that shows titles of books on the same subject.

For the next two questions use the following MLA citation for a journal article from a library subscription database.

> Cassidy, Wanda, Chantal Faucher, and Margaret Jackson. "Cyberbullying among Youth: A
>
> Comprehensive Review of Current International Research and its Implications and
>
> Application to Policy and Practice." *School Psychology International* 34.6 (2013):
>
> 575-612. *Academic Search Complete*. Web. 20 Mar. 2014.

9. Using the above citation, determine the name of the library subscription database that the journal article is from.
    a. Chantal Faucher
    b. School Psychology International
    c. Academic Search Complete
    d. Cyberbullying among Youth

10. Using the same above citation as the previous question, determine the article's year of publication.
    a. 2014
    b. It has not yet been published
    c. 2013
    d. The citation does not list the year of publication

11. You are asked to write a three-page research paper on the following question: "Should colleges be allowed to restrict student speech?" Which of the following two keywords entered into a search engine will most likely give results relating to your research question?
    a. College and censorship
    b. College and student
    c. College and speech
    d. College and restriction

12. Suppose you need to write a 5-page report on Abraham Lincoln's struggles to enact legislation. Based on the title, which of the following books will most likely give you the information you need?
    a. Lincoln at Gettysburg: The Words that Remade America, by Garry Wills
    b. Lincoln and Freedom: Slavery, Emancipation, and the Thirteenth Amendment, edited by Harold Holzer and Sara Vaughn Gabbard
    c. Abraham Lincoln: Vampire Hunter, by Seth Grahame-Smith
    d. Recollected Words of Abraham Lincoln, edited by Don E. Fehrenbacher and Virginia Fehrenbacher

13. You are helping a friend who is new to college to learn about medical viruses for a presentation she is doing for her English class. Which publication would suggest that she use to learn more about viruses?
    a. Journal of Anthropology
    b. T.V. Guide
    c. Nature
    d. USA Today

14. Consider the online catalog entry below for a library book that you want to check out.

    | | |
    |---|---|
    | Author | Grisham, John. |
    | Title | The pelican brief/John Grisham. |
    | Pub/date | New York: Doubleday, c1992. |

    | LOCATION | CALL NUMBER | STATUS |
    |---|---|---|
    | Circulation Materials | PS 3557 .R5355 P4 1992 | Available |

    | | |
    |---|---|
    | Edition | 1st ed. |
    | Description | 371 p.;24 cm. |
    | Subject | United States Supreme Court – Fiction. |
    | ISBN | 0385421981; |
    | 038542354 | (lg. print); |

    Which of the following is the most important piece of information needed for locating the book on the shelf?
    a. Author
    b. Call number
    c. ISBN
    d. Title

15. The drawing below represents bookshelves in the library. The book you need for class has the call number PS 2602 1996. On which shelf is this book?



| PS 255 –<br>PS 1098 | PS 1098 -<br>PS 2331.3 | PS 2331.4<br>– PT 5.2 |
| --- | --- | --- |
| Shelf A | Shelf B | Shelf C |
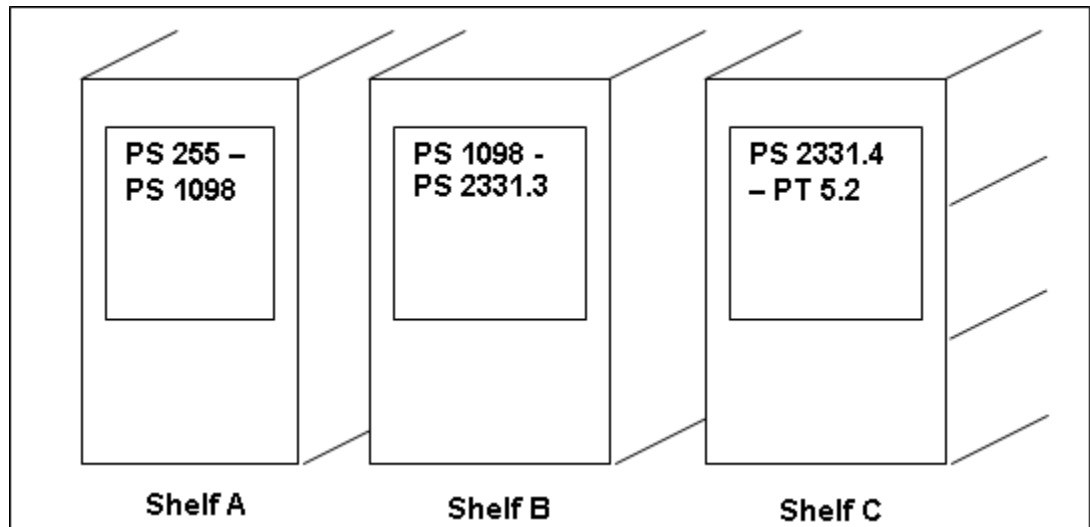
   a. Shelf A
   b. Shelf B
   c. Shelf C
   d. None of the above

16. This question refers to the following situation. You are writing a research paper for your history class exploring whether or not George Washington had wooden teeth. You have decided to use the following four search terms in your search: George, Washington, wooden, teeth.

   After entering your search terms (George, Washington, wooden, teeth) into a Web search engine, you retrieved the results below. Which of the four listed results would most likely contain the best information for your history paper?

   a. "George Washington's Wooden Teeth."
      Quick History Facts--http://www.freewebspace.com/woodenteeth

   b. "George Washington's Wooden Teeth."
      Department of History--http://www.harvard.edu/historydepartment/myth

   c. "George Washington's Wooden Teeth."
      Daily Factoid--http://www.usatoday.com/dailyfactoids/George-Washington-teeth

   d. "George Washington's Wooden Teeth."
      Online Auctions—http://www.buyonline.com/noveltyitems/woodenteeth

17. You are writing a report on automobile tires and safety. You have found several sources. Which would be most likely to provide unbiased, factual information?
    a. Report from an automobile manufacturer association
    b. Survey from a tire company
    c. Article in a consumer reporting magazine
    d. Article in a sports magazine

**Demographics:**

18. What is your gender?
    a. Female
    b. Male
    c. Other

19. Select one designation from the following list:
    a. American Indian or Alaskan Native
    b. Asian
    c. Black or African American
    d. Hispanic/Latino
    e. Native Hawaiian or Other Pacific Islander
    f. White
    g. Multi-racial (Specify if you wish) (text box)

20. What is your age?
    a. 20 or Less
    b. 21-30
    c. 31-39
    d. 40 or Greater

21. Please indicate your current academic status at HWC.
    a. Full Time
    b. Part Time

22. How many credit hours have you successfully completed at HWC (a final grade of A, B or C from courses numbered 101 or above)?
    a. 0-15
    b. 16-30
    c. 31-45
    d. 46-60
    e. 61 or Greater

23. How many credit hours have you successfully completed at other colleges or universities (a final grade of A, B or C from courses numbered 101 or above)?
    a. 0-15
    b. 16-30
    c. 31-45
    d. 46-60
    e. 61 or Greater

24. What is highest level of English you are currently in or have completed with a C or higher?
    a. English 98
    b. English 99
    c. English 100
    d. English 101
    e. English 102

25. Do you have a disability?
    a. No
    b. Yes

26. Did you just finish participating in an HWC Library orientation before doing this survey?
    a. No
    b. Yes

27. Feel free to share any comments you have about this survey that you want us to know. (big text box)

**Confirmation Page:**

Please *keep* this page or take a phone picture of it to keep in case you need to show proof that you completed this.

You are now finished! Thank you SO MUCH for your participation in the HWC Information Literacy Assessment of 2014. This will greatly help HWC in working toward improving student learning.

If you have questions or concerns about this assessment process, please contact Carrie Nepstad, Chair of the HWC Assessment Committee at cnepstad@ccc.edu or call 312-553-6095.

# Appendix B: Teaching Materials

The following materials were developed by HWC Librarian Todd Heldt in 2015 as part of a response to this study.

- Composing a Basic Search Strategy
- Creating an Annotated Bibliography
- Figuring Out What You Already Know
- How to Narrow Your Research Topic
- Information Timeline
- Usable Source Rubric
- What Do You Do When Activity

# Composing a Search Strategy

## I. Write a research question about your subject:

        Examples:

Which crime prevention programs are most effective at cutting down on repeat offenses of juvenile delinquents?

What are the effects of pollution on frogs in marshlands?

How did Lewis Carroll portray madness in <u>Alice in Wonderland</u>?

How can wireless technology improve patient care in hospitals?

_____.

## II. Write down the key concepts found in your topic sentence:

        Key concepts from one of the examples:

Wireless technology, patient care, hospitals

_____

**Write 2 or 3 key concepts in your question.**

## III. Find Synonyms of (or words related to) your concepts:

        Synonyms of example concepts:

| **Wireless technology** | **patient care** | **hospitals** |
|---|---|---|
| PCS services | patient recovery | clinics |
| Wireless lan | patient treatment | emergency rooms |

**List synonyms or words related to concepts in your own topic sentence:**

## IV. Connect Your search terms with Boolean Operators

*And* narrows your search:

A search for
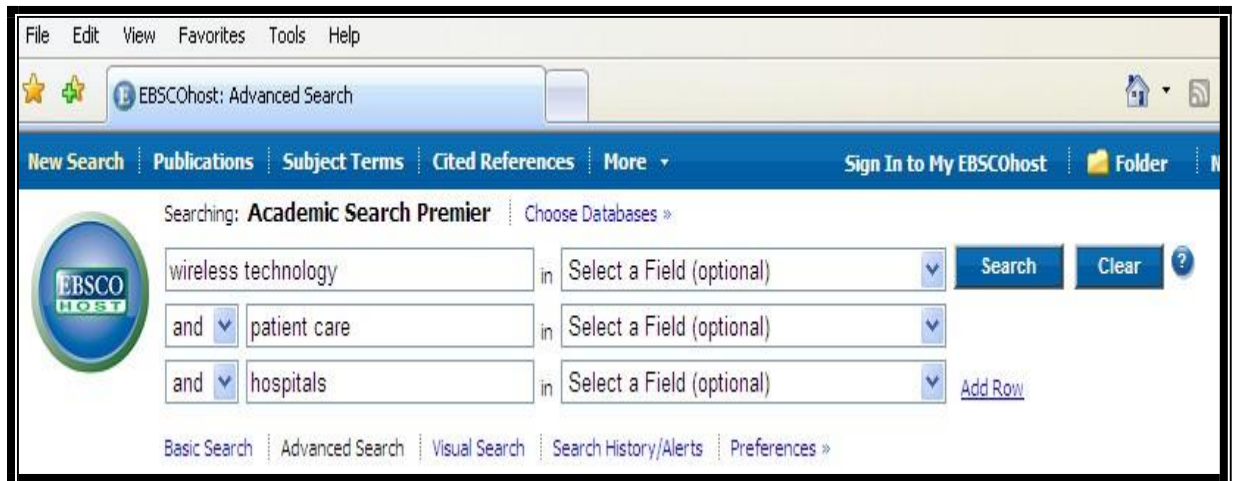Wireless technology and patient care and hospitals

will retrieve *only* articles about *all three* concepts.

*Or* broadens your search:

A search for
patient care or patients or medical records

will retrieve *all* articles about *any of the three* concepts.

**V. Enter your terms into one of our library databases:**



As needed, substitute or include other terms from your list of synonyms
and related concepts. For instance, substitute *clinic\** for *hospital\** or
*wireless lan* for *wireless technology.*

**VI. If You Need Help**

Always feel free to ask a librarian for help! You can drop by the library
without an appointment during our regular hours, or you can call us at
(312) 553-5783.

# Creating an Annotated Bibliography

**Each entry on your annotated bibliography will have four parts:**

- o a citation
- o a summary
- o an evaluation of credibility
- o and an assessment of the usefulness of the article to your project

**The summary portion will consist of three points:**

- o The question or problem addressed by the article (the "topic)
- o The article's method of analysis (experimental? theoretical?)
- o The article's thesis, conclusions, and/or recommendations

**The evaluation of credibility will note things such as:**

- o The timeliness of the study/paper.
- o The author's level of expertise (how much has he published in this field?)
- o The source's credibility (do they have a known bias, are they peer-reviewed, are they funded by a think tank with a political ideology?)

**The assessment of the usefulness of the article to your project will disclose:**

- o What about the study is useful to your paper (an argument, a set of facts, the bibliography?)
- o How you intend to use it (Does it support your main argument? Is it a counterargument? A refutation of a counterargument?)

# Figuring Out What You Already Know

Once you have a research subject in mind, take some time to figure out what you already know about your topic. Take a sheet of paper and jot down some notes about everything that comes to mind concerning your subject. You need not write in complete sentences or fully develop your ideas. For now, you are simply noting what you already know.

After you have written your notes, ask yourself if there are details you don't know that would give you a fuller understanding of the topic. Some good questions to ask are:

How do my concepts fit together?

Is there a particular process, person, or sequence of events that is unclear to you?

Are there laws, agreements, or social mores that govern my subject?

What is the history of my subject?

What is the social context of my subject?

Are there different sides of the issue?

Am I on one particular side of the issue?

Why do I feel the way I do about my topic?

What reasons do others state for feeling a different way?

These questions should help you understand which areas you need to know more about before you begin your research.

# How to Narrow Your Research Topic

When someone starts a research assignment, a typical mistake is to think too broadly about it. This is usually born out of having an interest in a subject but a limited understanding of everything that subject could encompass. For instance, if you wanted to write a paper about hip-hop music, you might do a search for that term in the databases and find yourself overwhelmed by all the information and unsure where to start! If you tried to write about all of the information such a broad search would turn up, you would soon find yourself with a book-length manuscript. Since your assignments are likely to be measured in pages instead of chapters, you will want to narrow your topic down as much as possible.

Here are some methods for narrowing your topic:

**Ask Questions**

One approach is to ask questions about your topic to narrow it down: Think, "Who, what, when, where, how?"

*Question: What about hip-hop do I want to talk about?*

Possible Answers: Hip-hop and activism? Hip-hop and therapy? Hip-hop and conflict resolution?

*Question: Who do I want to talk about?*

Possible Answers:  Teenagers?  Adults? Students?

*Question: Where do I want to talk about?*

Possible Answers: Workplace? High school?

*Possible Narrowed Topic:*

How can high schools use hip-hop conflict resolution to increase student safety?

**Bring Yourself into the Paper**

Another approach is to take an assigned topic and then try to find out how something you are personally interested in relates to that topic.

*Assigned Topic: Climate Science*

Possible Focus: How can businesses benefit by going green?

Possible Focus: How does meat consumption impact climate and ecology? Possible Focus: How could the music industry become more ecologically friendly?

**Narrow Your Research Topic**

What is your subject or broad topic?

_____

What about this subject do you want to talk about?

_____

Who do you want to talk about?

_____

Where do you want to talk about?

_____

What about this subject interests me?

_____

How can I relate this subject to an area that interests me?

_____

# Information Timeline

**How long it typically takes for an event to make it into various information sources.**

| When it happened | | Where to go |
|---|---|---|
| Today | >>>>>>>>>>>> | Electronic Media (tv news, radio, the internet) |
| Yesterday/Earlier this week | >>>>>>>>>>>> | Newspapers and Electronic Media |
| A week or two ago | >>>>>>>>>>>> | Popular Magazines |
| A month or more ago | >>>>>>>>>>>> | Popular Magazines |
| Six months ago or more | >>>>>>>>>>>> | Scholarly Journals |
| A year ago or more | >>>>>>>>>>>> | Scholarly Journals and Books |
| Decades or centuries ago | >>>>>>>>>>>> | Scholarly journals, Books and Encyclopedias |

## Why?

A news team can film something happening, send it back to the station, have it edited and packaged, and then broadcast it on the news in a matter of hours. If the event is newsworthy, then newspapers and magazines can arrange to have coverage or commentary about the event appear in the next day's, week's, or month's issue. It takes longer for something to appear in a scholarly journal because those sources publish less frequently and because the information therein typically includes in-depth analysis. Finally, books and encyclopedias take even longer to write, edit, and publish. The general rule is that the longer it takes for the source to appear, the more in-depth the coverage will be. Note, however, that encyclopedias provide general overviews, and therefore are meant to introduce you to the topic.

## A Caveat!

The internet extends the timeline. Webpages or blogs may contain information from any of these ranges, but the information you retrieve might not reflect the latest findings/understandings in the field. Likewise, you can retrieve many archived news articles or broadcasts from various dates, but they will reflect only what was known at that time. An excellent use for such contemporaneous sources is to provide social or historical context to your research, if necessary.

## What Your Research Process Might Look Like:

You have been given the task of writing a research paper about President George H.W. Bush's efforts to convince the American public that the 1991 Iraq War was a worthwhile endeavor. To learn more about the subject, your research process might look like this:

### Preliminary Reading

*Encyclopedia Brittanica entries:*

> Iraq and the war of
> 1991 George Herbert
> Walker Bush Saddam
> Hussein
> Kuwait

*An Internet Search:*

> (advertising OR marketing OR public relations) AND (Gulf War OR Iraq War 1991)

### Deeper Reading

*EBSCOHost Search for full-text, peer-reviewed journals:*

> Carpenter, Ted Galen. "Cynical Myths And US Military Crusades In The Balkans." *Mediterranean Quarterly* 22.3 (2011): 10-25. *Academic Search Premier*. Web. 21 July 2014.

> Garcia, Helio Fred. "On Strategy And War: Public Relations Lessons From The Gulf." *Public Relations Quarterly* 36.2 (1991): 29-32. *Business Source Elite*. Web. 21 July 2014.

*The Library's Online Catalog:*

> Smith, Philip. *Why war? the Cultural Logic of Iraq, the Gulf War, and Suez.* Chicago: University of Chicago Press, 2005. Print.

### Contextual Research

*A Youtube.com search:*

> Desert Storm and Gulf War 1991

*Newspaper or Magazine Archives in Microfiche/Microfilm:*

> Scanning the dates October 1990 to February 1991 for examples of new stories, ads, and editorials to determine the "mood" of the time.

# Usable Source Rubric

| | 3 | 2 | 1 |
|---|---|---|---|
| Authority | The publisher, author and/or source are established authorities on the subject. The work is scholarly or academic in nature and often cited by other researchers. | The publisher, author and/or source are not as highly regarded. The work may have been written for a popular or inexpert audience. Work may contain citations and references but is nevertheless less likely to be cited by other researchers. | The publisher, author, and/or source are looked down upon by experts in the field. The work is not cited by other researchers. |
| Objectivity | Tone is neutral and scholarly. Facts are presented without words that are meant to stir your emotions. The source cites other sources that agree with it as well as those which do not. Rebuttals are made with evidence, not personal | Source is neutral in tone but does not cite sources with differing views or refute them appropriately. Tone may be persuasive, for instance, a call to action. | Tone is persuasive, language displays bias, and presentation of points is one-sided. |
| Timeliness | Source is relevant to the time period you intend to discuss. | Source is somewhat out of the range of time you intend to discuss; however, it may still be relevant in describing context or outcomes. | Source is untimely and irrelevant. |
| Relation to Other Sources | Source is in broad agreement with other sources written by experts in the field. OR, source disagrees with them but provides clear, documented, verifiable evidence to the contrary. Remember that extraordinary claims | Source may agree or disagree with other sources accepted in the discipline but does not contain a list of works consulted or cited. | Source is an outlier among experts in the field and provides flawed, outdated, previously disproven, or unverified/unverifiable evidence. |

12-10   This looks like a great source to use!
9-7     This may be a good source to use, as long as you provide some caveats and disclaimers. 6-4
        This is not a good source to use!

# What to Do With What You Find

Break students into small groups of 3-5 and give them the handout with instructions. Set the scene by saying, "You did some preliminary research in the library for your paper, and you emailed yourself a bunch of articles. You sit down at your computer with every intention of writing your first draft tonight, and you find that some of the articles are not exactly what you thought they would be when you just glanced at them. Discuss with your groupmates about what you can/could/should do in each of the following situations."

After they have a few minutes to discuss the hypothetical scenarios with each other, ask different groups for their consensus answers. Use their answers as a way to discuss ethical, pragmatic, and/or scholarly approaches to this aspect of information literacy, ie. the ability to ethically use the information they have found.

In your research you will find many different kinds of articles, some of which are more useful than others. In each of the following situations, what should you do?

**1.       What do you do when the article contains your keywords, but is not about your subject?**

You are looking for articles about shell companies but end up with an article about Shell Oil Company .

**2.       What do you do when the article contains your keywords but is focused on a different aspect of your subject?**

You want to write about social programs that help solve the problems of juvenile delinquency, but you find an article about how one particular neighborhood is protesting the opening of a new detox center for juvenile offenders.

**3.       What do you do when the article is about the same aspect of your subject, but from the opposite point of view?**

You want to prove that government-funded after-school programs don't decrease gang violence, but the article contends that such programs actually *do* decrease gang violence.

**4.       What do you do when you can't refute the articles you have found that contradict your original claim?**

Try as you might, you can't find anything that credibly rebuts what you have found.

**5.       What do you do when the article is about your subject and corroborates your thesis?**

You have found an article that reinforces your point of view and will work PERFECTLY to prove that you are right!

You pull up an article that contains all of your search terms, so you're done, right? Not exactly. Finding sources is only the first step. Once you get into your research, you will likely find several different *kinds* of sources, some more useful than others.  Here is what to do…

When:
The article contains your keywords, but is not about your subject. You are looking for articles about shell companies but end up with an article about Shell Oil Company or about a company that sells sea shells (by the sea shore).

> Then:
> You have to look for other articles because a quote from such an article will not help you prove or defend your thesis. You may even have to reevaluate your search terms and determine if they should be more specific of more general.

When:
The article contains your keywords but is focused on a different aspect of your subject. You want to write about social programs that help solve the problems of juvenile delinquency, but you find an article about how one particular neighborhood is protesting the opening of a new detox center for juvenile offenders.

> Then:
> Store the information away in the back of your mind because, although it does not help you prove your point, you might be able to use it to explain the social context of the paper.

When:
The article is about the same aspect of your subject, but from the opposite point of view. You want to prove that government-funded after-school programs don't decrease gang violence, but the article contends that such programs actually *do* decrease gang violence.

> Then:
> Save the article as a source for a counterargument to include in your paper, then read more articles and hope that they will help you prove your point. Use the new articles to refute the claims of the first article.

How do you refute an article?
Study more articles and find out if the first article is the consensus view of experts or a lone crackpot crying out into the universe. Obviously, you don't want to call someone a crackpot in your college-level paper, so you might instead say that, while the opinion is interesting, it is ultimately contradicted by experts in the field.  Then you would present those experts' findings.

> Is there bias?
> Do some research to see if the author or source has a consistent political bias. If so, those allegiances may call into question the truthfulness of the claims therein.

> Is it timely?
> Science, research, and technology update our understanding of the world daily. Claims that represented the best understanding in the year 2000 may no longer represent the best understanding.  Look for more current articles to see if anything has changed.

*Does it Use Weasel Words?*
Weasel words are used by some commentators to disguise personal opinions as facts. These phrases are not always weasel words, but when you see them, you should pay attention to the claims being made to see if they actually ring true.  Common weasel words are:
Some people say...
Research has
shown... It is
believed that…
It has been said/suggested…
Many people believe…
It is often argued that…
Critics/experts agree
that...

And there are many others. What each of these phrases has in common is that it makes a claim without providing any indication of who said it, when she said it, or why she said it. In other words, when you see these words be sure to start asking questions. Further research *might* show that the article is not being entirely honest.

But Then:
What if you can't refute the articles you have found that contradict your original claim?

Then:
You might have to reconsider your thesis. Perhaps you are wrong and should try to prove the opposite of what you first thought. Or, perhaps your thesis is only conditionally right. Instead of saying, "It is best to approach such and such problem in such and such solution," you might instead qualify your thesis statement.  Examples of qualifying a statement are:

I am opposed to abortion *except in cases of rape or incest*.
Or
*When the economy is good,* we should enjoy lower taxes, *but in times of economic distress*, the highest wage earners should be expected to pay a higher tax rate.
Or
Genetically modified foods should be allowed in the United States *if they are clearly labeled as such.*

When:
 The article is about your subject, corroborates your thesis, and is timely and free of bias.

First:
You *still* have to evaluate it for credibility, timeliness, and bias. If the article is outdated, comes from an unreliable source, or is biased, you may have to leave it out of your paper or include it with caveats and qualifiers.  HOWEVER, if the article passes inspection…

Then:
Take notes for later. Write down all of the information you will need for your works cited page. Write down any information you will want to quote, paraphrase or summarize, being careful to note the page number or paragraph number of the where you got the information. This information can be mapped out in your outline and used in your paper. Always follow the documentation style your instructor wants you to use.