TEACHING STUDENTS THE "HOW" AND "WHY" OF SOURCE **EVALUATION: PEDAGOGIES THAT EMPOWER COMMUNITIES** OF LEARNING AND SCHOLARSHIP

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Introduction

Evaluating information sources is an essential part of the research process, but many undergraduates fail to grasp its importance. In their written assignments, students frequently deploy sources in an ad hoc manner or, even worse, write their papers and then look for sources. All too often, what is absent from students' research and writing is purposeful, thoughtful engagement with resources. While sources have the potential to add to our understanding of an issue, students frequently view them as simply an add-on to the research paper assignment. Moreover, once students have located resources, they are often at a loss about how to use them. The idea that writers have something to say and that sources can help them say it is not fully appreciated by many students. These issues suggest that instructors may need to rethink traditional approaches to teaching source evaluation.

Instruction sessions devoted to source evaluation have often centered on checklists that introduced students to evaluative criteria (e.g., authority, accuracy, currency, bias, and relevancy). However, students' familiarity with these criteria does not always translate to an ability to apply the criteria effectively. Concerns over teaching with checklists have been noted by Meola (2004), Benjes-Small, Archer, Tucker, Vassady, and Resor (2013) and Ostenson (2014). Meola argues that the checklist format "can serve to promote a mechanical and algorithmic way of evaluation that is at odds with the higher-level judgment and intuition that we presumably seek to cultivate as part of critical thinking" (2004, p. 337). Benjes-Small et al. report that "students utilizing ... [their library's] checklist tended to slide down the slippery slope of dualistic thinking. The ... [checklist's] rating system was employed frequently in a simple 'right' or 'wrong' approach..." (2013, pg. 41)." Ostenson suggests that checklists can serve as

learning scaffolds for students but also notes that their "critical flaw" is that they "too frequently ignore or pay little attention to the broader context of an Internet search at the same time as they oversimplify the behaviors at work in making evaluative judgments" (2014, p. 39).

While experienced researchers consider the evaluative criteria found in checklists, they are also guided by information need, which determines the weight assigned these criteria, or even if the criteria guide particular source selections. To help students develop as researchers, instructors at Auburn University Libraries designed classroom activities that allow them to explore the contexts in which different types of information sources are created and used. This essay outlines three such activities.

EXERCISE #1: MATCHING INFORMATION SOURCE TO INFORMATION NEED

ACRL Frame: "Searching as Strategic Exploration"

In our daily lives, we seek information for different purposes. This extends to writing, where we deploy information sources to accomplish specific tasks. This exercise is designed to focus students' attention on the strategic nature of research. Students are asked to consider different research scenarios, the information need expressed in these scenarios, and the type(s) of information that would best address the information need.

The class plan is as follows:

1) The instructor introduces the activity by reminding students that source evaluation involves making choices about the resources they use in their papers. This is a key point often overlooked by students, who tend to be focused on assignment requirements.

- In order to focus students' attention on the information 2) content found in various types of sources, the instructor and class first discuss a source that all students are familiar with: the World Wide Web. As a class, students generate a list of the different types of information found on the web. This is a fairly straightforward activity, and it prepares students to consider the types of content found in other sources that may be less familiar.
- 3) The instructor next divides the class into four groups. Each group is asked to record on a whiteboard the information content found in one of the following sources: (a) reference works, (b) books, (c) magazine articles, and (d) scholarly journal articles. Instructors may need to work with students to flesh out these lists, as students have varying degrees of familiarity with these sources. Students may find it helpful to compare and contrast what they know about the content of one source with that of another. Each group shares its list with the class, and the lists are displayed where everyone can view them.
- 4) The instructor distributes to each group a "research scenario" developed by the instructor prior to the class session. (See Appendix A for a sample set of four scenarios.) These can be focused on a course theme or reading. Each research scenario should articulate a different information need. For example, students may need to locate information that provides context or background information. They may need to find evidence that supports a claim they are making, or they may need to locate and address a counterargument. Joseph Bizup has developed a "rhetorical vocabulary" (2008, p. 72) for sources that can be a useful model when constructing research scenarios. distinguishes sources according to four "functional roles they play: as background, exhibits, arguments, and methods" (p. 75). According to Bizup, "Writers rely on background sources, interpret or analyze exhibits, engage arguments, and follow methods" (p.
- 5) Working with their assigned research scenario and with the information content lists generated earlier by the class, each group will select no more than three types of information that they believe would be useful in addressing their research scenario. Students are directed to choose the information that best addresses the research need. For each type of information they select, students must respond to the question: "How would you use this information?" The instructor checks in with each group to ensure that students stay on task and do not skip this key step.
- 6) Each group is then instructed to locate one source that addresses their research scenario and that contains at

least one type of information they identified as useful. Students may use any search tool they wish in order to find their source. Each group presents their source to the class.

Students enjoy searching for information, and, with no restrictions imposed as to search tool or type of information used, they are more willing to discuss their choices. The instructor has the opportunity to hear, and respond to, the reasons students give for choosing the sources they do. Questions about the credibility of sources and their adequacy to address the information need will arise and can be addressed in context

EXERCISE #2: TEACHING SCHOLARLY VS. POPULAR SOURCES WITHOUT A CHECKLIST

ACRL Frame: "Information Creation as a Process"

Library instruction sessions devoted to source evaluation are often offered in conjunction with writing assignments that require students to locate scholarly sources. In the past, instructors at Auburn University Libraries had designed classroom exercises using standard checklists of criteria for distinguishing between different types of information sources. A review of library worksheets revealed that the majority of students tended to rely on physical characteristics to distinguish between popular and scholarly sources, as opposed to characteristics that required higher levels of critical thinking to discern. For many students, the takeaway from these checklist exercises appeared to be that scholarly sources were "good" and popular sources were "less good." The following activity was developed to provide students with an opportunity to (a) reflect on how the information creation process influences the "capabilities and constraints" of various kinds of sources (ACRL, 2015, "Information Creation as a Process," para. 1) and (b) recognize that the value accorded a source's authority, accuracy, and timeliness will vary according to the information need.

The class plan for this activity is as follows:

- 1) Prior to class, the instructor selects four sources related to a current event: blog post, newspaper article, magazine article, and scholarly journal article. The instructor creates a Google form with the two questions in Step 3 (below) and a handout with links to the four sources and the Google form.
- After introducing the learning outcomes for the day's 2) session, the instructor divides students into groups of 3-4 students. Group sizes are deliberately kept small to promote better discussion among students. Members of each group receive a handout with the group's assigned source highlighted. There will likely be multiple groups in the class working with the same source.

- 3) Each group is instructed to investigate their source and respond to the following prompts: (a) Describe the research process of the author(s) of your source and (b) Describe any review or revision processes that this source has gone through before it was published or posted.
- 4) Groups pick a team name and enter their responses into the Google form.
- 5) After groups have had time to discuss the two prompts and record their answers, the instructor displays the responses on the overhead screen, using the Google form's response spreadsheet. Responses can be arranged so that those addressing the same source type are juxtaposed for easy comparison.
- The instructor and class discuss the group responses. 6) The following questions may help guide the discussion.
 - A) Compare the research/creation process of the different sources
 - What types of sources did the author(s)
 - How did the author(s) gather their information?
 - How much time did the author(s) spend researching?
 - What might this tell us about the authority of the source?
 - Why and when does authority matter?
 - B) Compare the review/revision processes of the different sources
 - What purposes do the review/revision processes serve?
 - Why is the frequency of publication significant?
 - What are the benefits and constraints associated with different types of review/revision processes?
- 7) At the conclusion of the discussion, give each group an opportunity to formulate a response to the following question: How do your source's research, review, & revision processes influence whether you would use the source for the course assignment?

Having students evaluate sources on the basis of the processes by which they were created shifts the focus from surface-level markers that distinguish sources to more subtle but substantial differences. Students are able to assess the advantages and limitations of the various processes by which information is produced and disseminated. For example, a

source's currency or timeliness may come at the cost of accuracy; on the other hand, the rigorous review process that ensures a source's accuracy may come at the cost of currency. The value that popular and scholarly sources have for the user will vary based on information need.

EXERCISE #3: TEACHING SUBJECT DATABASES WITH FAMILY FEUD®

ACRL Frame: "Scholarship as Conversation"

Not all research questions can be answered by tracking down discrete, isolated facts. A significant number of research questions are open—that is, they are not yet settled or concluded. Instead, they are the subject of ongoing debate and scholarly conversation. As students grapple with these questions, they must expand their search horizons to include multiple perspectives, and they will need to identify those disciplines and scholarly communities that have an interest or stake in their research question. As with the previous two activities, this third exercise, a library version of Family Feud©, focuses students' attention on information need. In this exercise, students are asked to determine which field of study best aligns with an assigned research topic.

The class plan is as follows:

- The instructor outlines the session's learning 1) outcomes. Students will be able to: (a) Identify key concepts and terms that describe the information need (b) recognize that knowledge can be organized into disciplines, and (3) evaluate which disciplines or community of scholars can best address the information need.
- 2) To set the stage for the competition, the instructor plays a video clip of Family Feud. Many entertaining examples are available on YouTube.
- 3) The instructor divides the class into an even number of teams. Pairs of teams compete against each other.
- 4) The instructor outlines the rules of the game to the class: (a) Each team must decide on a "family" name (have fun). (b) Each opposing pair of teams will be given an abstract of a scholarly article. They must read the abstract and identify key concepts that describe the research topic. (c) Using the library's subject each team selects databases page, disciplines/subjects that they believe best address the research topic summarized in the abstract.
- In advance of the class session, the instructor selects 5) article abstracts and prepares the "game board", which can be a whiteboard or PowerPoint slide with "Librarians surveyed said: ____" responses. These responses are the disciplines or fields of study that the instructor deems to be most closely aligned with the research topic.

- 6) A coin toss determines which team goes first. Teams go head-to-head. Each correct answer earns one point.
- 7) The teams go back and forth until all correct answers are revealed. The winning team wins a fabulous library prize!

Students warm to a little friendly competition, and this activity provides just this kind of outlet. In our experience, students enter into the spirit of the game and vie with each other to make a compelling case for their choices. Those students with a subject major or background in the disciplines discussed are often happy to contribute, realizing that they possess specialized knowledge that may not be shared by their peers or the instructor.

To be successful, students will need to read the article abstract carefully. On occasion, students will pick out terms or concepts that relate only tangentially to the abstract's key claims. Also, while a number of research topics are interdisciplinary—and this exercise helps to drive home this point—some disciplines will align with the focus of the abstract better than others. Instructors should be prepared to discuss these issues and to probe for reasons behind student responses.

CONCLUSION

Students entering college have a growing awareness that their intellectual interests and career choices will steer them towards specific scholarly and professional communities. In order to be able to participate in, and contribute to, these communities, students must first learn how to locate and use information effectively. Understanding the uses and usefulness of sources is critical to sustaining and participating in the research practices that create new knowledge.

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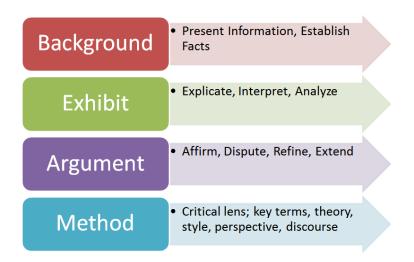
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APPENDIX A

Joseph Bizup's BEAM Model (2008) is represented by this graphic developed by Kate Ganski and Kristin Woodward (2013).

What would a writer do with this source?



What could a writer do with this source? by Kristin M. Woodward/Kate L. Ganski is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

A sample set of research scenarios aligned with the BEAM model and developed by Juliet Rumble for use in Exercise #1:

Research Scenario #1

Information Need: BACKGROUND

You are writing a paper about the activist role that social media has played in community responses to violent encounters between police and African-Americans over the past year. You know this is not the first time social media has sparked political action. You are looking for background information—i.e., basic facts about other key events, movements, etc. that would help place this phenomenon in context.

Research Scenario #2

Information Need: EXHIBIT

You are writing a paper that examines the media's portrayal of Michael Brown. You are looking for concrete examples you can analyze to support your claim that the media's coverage of events in Ferguson, MO expresses—and contributes to—biases and stereotypes.

Research Scenario #3

Information Need: ARGUMENT

You are writing a paper about the capacity of social media to effect social change. The power of this medium seems obvious, but your prof mentioned that the long term impacts of digital activism are up for debate. Does digital activism produce engaged citizens or armchair activists? You need to inform yourself about the key claims of this debate so that you can address these in your paper.

Research Scenario #4

Information Need: METHOD

You are interested in writing a paper on "hashtag activism" in Ferguson, MO. Your professor suggests you might approach your topic as an ethnologist or anthropologist might. You are looking for sources that would provide this subject/disciplinary lens through which to assess the impact of social media on social movements.