Looking to the Research Paper and Beyond: Information Literacy and Rhetorical/Composition Perspectives on Student Research and Writing Processes

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Instruction librarians and writing instructors spend a significant part of their instruction time talking to students about what makes a source "good." Even more time is spent perusing and assessing the papers and projects in which students have used these (supposedly) good sources that they found after our (supposedly) beneficial instruction. We have tacitly assumed that if these end products turn out well (or, if we aren't grading the papers ourselves, we didn't hear any complaints from the writing instructor), then the process that produced them must have also been good. That's not a rock-solid string of logic to build a curriculum on, yet the research paper has a presence, heritage, and gravitas in our academic world (Brent, 2013; Hood, 2010; Melzer, 2014) that research process instruction does not. How can we be sure our instruction time is being spent beneficially? How do we know that process instruction is valuable to students and their intellectual and written labor? One way to find answers to these questions would be for both library and writing instructors to ask students; to pause and listen to their voices before we deploy our pedagogical strategies in the classrooms we share with them[1]. If we gave them a chance, what would students say about their research process and how it influences their writing process? On what grounds do they evaluate sources? And do students' descriptions and valuations match those of disciplinary professional organizations such as the Association of College and Research Libraries (ACRL) and the Council of Writing Program Administrators (CWPA)?

In this article, I will discuss a study performed as a small part of a bigger project that examines students' research and writing processes in the first-year composition class at a large, public, urban R1 university. The goals of this bigger project are to better understand what is effective and ineffective about the curricular elements that explicitly teach research-based writing. The project accomplishes this by using both traditional assessment methods and by eliciting and examining reflections, descriptions, and feedback about the research process from students. Their descriptions, given in the form of journal responses, are examined here in part. Students in this study were able to clearly articulate a set of principles that guide their source evaluation. However, there are opportunities for library and disciplinary instructors to challenge and support them in developing greater complexity and nuance in the personal frames that guide their evaluation.

Methods

The students in this IRB-approved study[2] were enrolled in eight sections of first-year writing taught by four composition instructors. These students completed two major research-based assignments over the course of approximately eight weeks during the Winter 2017 semester. The university followed a "train-the-trainer" approach to research instruction: during their first semester teaching, the four instructors had been trained in providing research instruction to students by library faculty; subsequently, they delivered research instruction to their own sections themselves. Prior to these two research-based assignments, the students wrote a rhetorical analysis paper; afterwards, they wrote a reflective paper detailing their growth over the semester. During the eight-week time period when they worked on their research assignments, the students were also assigned a series of eight journal prompts to encourage metacognition and reflection about their course work, their research process, and their writing process.

This article will discuss the students' responses to one journal prompt that specifically asked them to consider their choices and values as writers and researchers. The prompt:

> What makes an information source good or useful? Are there things you consistently look for or notice in good sources? Explain in as much detail as you can.

Sixty-seven students responded to this journal prompt and their responses were downloaded from their course website. After the responses were anonymized, this corpus was uploaded into the Dedoose coding platform and analyzed through descriptive coding (Creswell, 2014, pp. 197-200). The coding schema was developed by reading a random sample composed of seven journal responses (~10% of the total collected) to identify broad themes and common criteria. The coding schema can be seen in Table 1: Coding Schema (see at http://bit.ly/452_Tab1_Boeder).

As the codes were applied to the journal responses, extracts were created within the individual artifacts. A total of 356 extracts were created during the analysis of the journal responses, and approximately a dozen extracts had more than one code applied to them because students had discussed two themes together.

Results

After analyzing all the journal responses, the codes were ranked by how frequently they were applied to reveal which codes represent criteria that were most discussed by the students. Table 2 displays this ranking, providing first the number of journal responses to which the code was applied and second the number of extracts.

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1 Baer (2014) provides a succinct overview of previous studies discussing differences in how students and instructors conceptualize the research process.

2 Study was approved by the IRB of the institution where the courses were taught.

Table 2: Code Application Frequency

Code	Journal Responses (out of 67 total)		Extracts (out of 356 total)	
Information/content	42	62.7%	48	13.5%
Author	41	61.1%	52	14.6%
Credible/unbiased	34	51.7%	37	10.4%
Cites others	31	46.3%	34	9.5%
Evaluation Process Description	29	43.3%	40	11.2%
Helpful/relevant	28	41.8%	36	9.9%
-- To own claim	*20*	*29.9%*	*23*	*6.5%*
Date/recency	26	38.8%	28	7.9%
Platform/venue	25	37.3%	33	9.3%
-- Library	*6*	*8.9%*	*6*	*1.7%*
Formatting	20	29.9%	25	7.0%
Length	7	10.4%	7	1.9%
Audience	3	4.5%	4	1.1%

Codes are ranked by how often they were present in a journal response (i.e. it was applied at least once to a journal response), from highest to lowest. Several extracts could have come from one journal response.

Two codes ("Information/content" and "Author") were applied to nearly two-thirds of the journal responses. These topics seem to have been predominant in students' minds as they responded to the questions in the prompt and this finding will be discussed further below. The application of "Credible/unbiased" to approximately half the journals signals that this is also a concern for many students as they analyze sources. Below these top three response codes, the students' concerns become more diffuse, with three codes appearing in 40-49% of the journal responses, another three in approximately 30-39% of the responses, and the last couple of codes each applied to only a handful of responses.

Discussion

There are consistent and repeated trends across the students' responses, which speaks to the value of administering such an exercise to our students so we as instructors can be better informed about the practices and opinions they hold. Reflecting on these trends, though, reveals additional nuances that could impact our pedagogy.

Reputations & Evaluations: A disconnect between author and audience

While author being directly mentioned as an important aspect of a student's source analysis was not a surprise (e.g., it is a prominent, common "check" in all sorts of source reliability guides, such as the CRAAP test), that audience was invoked less than a handful of times was an unfortunate surprise (though perhaps it should not have been due to the relative complexity of ascertaining who the intended audience of a piece actually is). All sections of the first-year writing course in this study follow a standard assignment

sequence and these students all completed a rhetorical analysis paper as their first major assignment. During this assignment, students are instructed in the basics of the rhetorical appeals to logos, ethos, and pathos as well as the components of the rhetorical situation: the rhetor, the audience, the situation or exigence, and the medium[3]. A writer's ethos arises from their position and relationships within a community. Students reported that they consider repeated publication on a topic to be a mark of authority on that topic, as it presumably is a sign of both growing knowledge and growing respect from the community of readers. However, for students to not consider how the audience may affect an author's choices shows a lack of connection between those two elements of the rhetorical situation—and a lack of transfer of knowledge from the rhetorical analysis assignment's instruction to a new learning situation (in this case, a research assignment) calling for similar analytical work. In the future, librarians and writing faculty could work together to make more explicit connections between current assignments and concepts from previous assignments to help students draw on skills they already have been developing.

While it is encouraging that students evaluated the author of a piece as part of their research process, the formulation of their criteria for this evaluation is also somewhat concerning. The example quote provided for "Author" in Table 1 is typical of the explanations provided across the corpus. Relying on how frequently an author has been published or what their academic credentials might be is reasonable as a starting point, but by itself it becomes an overbroad and simplified principle. For example, an author who defends the position that the earth is flat may have a large body of work and many supporters; it does not mean his belief is correct. Continued valorization of academic credentials and commercial success also contributes to neglect and oppression of minority voices. Deeper reflection about the multiple processes by which authority is earned and granted may open our students' minds to voices and stories they had previously ignored. It may also lead them to question why certain voices are easily trusted, elevated, and celebrated while other voices are not, or how they themselves may already have earned a position of trust and authority because of their own progress through the credentialing systems within their workplaces, communities, or previous formal schooling. This is an area where library and writing faculty may be especially able to find common ground and values, a place where our overlapping but unique areas of expertise could reinforce and reiterate lessons for our students.

Credibility & Bias: When is opinion not actually opinion

In their journals, students drew a connection between the presence of an author's opinion (e.g., see the first stu-

3 For a brief synopsis of and links to additional reading on the concept, see "Rhetorical Situation", a poster page from the National Council of Teachers of English, available at http://www.ncte.org/library/NCTEFiles/Resources/Journals/CCC/0613-feb2010/CCC0613Poster.pdf.

dent excerpt for "Credible/unbiased" in Table 1) and a lack of credibility in the source. Once again, though, this presents a pedagogical opportunity to engage in deeper thinking about the rhetorical life cycle of sources. If students were willing to grant ethos (i.e., authority) to authors upon examination of their background, why would they become unwilling to hear that author out when a piece is, in the students' estimation, opinionated? If students are making this shift, their attention should be called to it. This also may open an opportunity to connect their own work on projects to larger patterns in cultural negotiation of authority. At what point, in relation to a particular topic, does a respected expert lose credibility? What are the markers of bias in an article or book? How do the answers to these questions vary from one person or topic to another? These additional questions could open up an ever deeper discussion about ethos and relationships with audiences. It could also engage conversations about how dominant cultural tropes can become utilized in circumstances they were not meant for—for instance, how the concept of "bias" means one thing in neuroscience, another in a courtroom, and a different thing in popular culture.

Not every course will stress a rhetorical or argumentative approach to writing, as the one in this study did, and thus not every course will enable the obvious map between the rhetorical term "ethos" and the information literacy conceptualization of "authority". But librarians and writing faculty can work together to make students' understanding of information environments more complex by referencing ideas and major concepts addressed in the course curriculum and showing how they are also part of the research process. All of us could ask our students how they consider an author's reputation and relationship with audiences when they evaluate sources. We can start conversations that explore the nuances of that relationship and how it affects both the source itself in its original context and the way it is perceived by other audiences when it circulates into a new situation beyond that original context.

Connecting dots between students and professional organizations

When the students in this study described how and why they choose sources, they were reaching towards the nuance present in the ACRL's *Framework for Information Literacy in Higher Education*. Many of the most frequently applied codes (see Table 2) map neatly onto the threshold concepts included in the ACRL's Framework at first glance; for example, "Authority is Constructed and Contextual" could help students with their formulation of how to evaluate authors beyond a simple focus on degrees and numbers of publications. But there are further nuances to the process of evaluation that could be teased out further, as described above. The CWPA's *Framework* may provide a useful heuristic for thinking about what additional behaviors and qualities students would need to perform as part of these extra

analyses. The CWPA describes writers as possessing curiosity, flexibility, and engagement. As we encourage students to deepen their analysis of sources beyond broad strokes and surface-level perceptions, we should remember that we are asking them to look for more information than they have in the past, to stretch themselves beyond their previous mental models, and to remain connected to a learning process that may demand more time and energy than they anticipated.

Conclusion

The process by which this set of data—the journal responses—was analyzed is not dissimilar to the work done by many writing instructors when they evaluate journal responses. Many instructors certainly have to work faster, but they do notice patterns and themes and then adjust their pedagogy to meet student needs. Students in this study could explain, in a limited fashion, what helped them decide to use one source over another. A challenge that faces instructors in both library and writing classroom spaces is how to help students include previously unconsidered factors in their information evaluation. If library faculty have the opportunity to assign a brief writing prompt, maybe as homework to prepare students for a session or perhaps at the beginning of the session itself, it will open up opportunities to learn what knowledge and attitudes students will bring to the classroom. From there, library faculty—in partnership with writing faculty—can plan a more tailored, thought-provoking session for the students. Also, both faculty groups could work from these insights to create a fuller picture of where students are or aren't achieving the goals the curriculum or institution may have set, and how they as faculty can create scaffolding to better support their learning.

Both writing and library faculty can seemingly put an almost bottomless amount of effort into helping students analyze and reflect on their source selection and learn to contribute responsibly to communities and conversations. But we should also be strategic about how we invest our effort, and focus on the areas that we know are unfamiliar to students, the ones that will challenge them to grow, the ones that help them learn values and skills that will be needed in their future. Drawing on the documentation from our professional organizations may help many of us see a way forward, but we must remember that this path is our students' to walk. Beginning our instruction by determining where they are, intellectually, will help both them and us know what directions our work together should take.

References

For references, see here http://bit.ly/452_References_Boeder