Build Sustainable Collaboration: Developing and Assessing Metaliteracy Across Information Ecosystems

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This paper presents and describes the goals and beginnings of an ongoing, collaborative assessment project designed by a librarian and a writing program faculty member at a medium-sized, doctoral/research university. Librarians at this institution have integrated research instruction within the university's first-year writing program for over 30 years and since 2010, librarians and writing faculty have designed adaptable, teaching modules that integrate new media and research tools into the writing curriculum.[1] These modules were inspired by the ACRL Information Literacy Competency Standards for Higher Education.[2] The institution's accreditation process has also prompted institutional self-reflection that observes the continued impact of library instruction on students' achievement. With the 2015-adopted ACRL Framework for Information Literacy for Higher Education[3] in mind, the authors use assessment data, student essays, and student self-reflections to re-consider the teaching and assessment of information literacy learning.

Despite challenges to collaborative work between our fields of composition studies and information literacy, we see collaboration as a necessary component to fully consider and realize some of the goals set out by the Framework—and a key way to make our progress sustainable. The question of how we teach "concepts" rather than "skills," we think, only can be answered through collaborative work, and only can be assessed in local, collaborative assessment plans that are holistic.

Teachers of writing are in a unique position to apply concepts of metacognition used in other areas of curriculum (in the field's valuing of reflection[4] and process[5]) to information literacy instruction and collaborative work with librarians on holistic assessment. This approach will help readers understand how, on a small scale, we are revising how we teach and assess information literacy in order to incorporate the Framework into our praxis. Beyond the small scale of this instructional pairing, we hope to influence our colleagues' programmatic goals and learning outcomes. Particularly, we illuminate our approaches to teaching students how to collaborate with one another, engage in scholarly communication practices, and self-assess their research dispositions. We address instructional methods, including assignment design,

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that encourage students to harbor this intellectual discovery through the aid of constructivist online learning and new media.[6]

Thus, our assessment plan is long term, and intended to provide inspiration and justification for future studies that gain endorsement (ideologically, pedagogically, and monetarily) from university systems that value the work and worth of libraries and library instruction.[7] While we have been working together and thinking about these issues for a long time, the impetus for this study really started, for us and many universities, with our accreditation body, the Middle States Commission on Higher Education,[8] which pushed schools to think about information literacy, incorporating it into curriculum, assessing how well we are teaching concepts and skills, and how well students are learning.

Literature Review

This is not the first attempt at assessment for our university's writing program: In partnership with librarian colleagues, the writing program assessed the success of teaching research skills in 2012-2013 as part of a five-year cycle. The assessment team in the writing program aims to capture data about discrete skills suggested by its grading rubric (See Appendix 1). One of the five cycles corresponds to the rubric categories labeled "Support" and "Correctness," which encompass student writers' use of sources and citations. The research cycle of assessment was designed using the writing program rubric, along with information literacy rubrics rooted in the ACRL Information Literacy Competency Standards.[9] While the team consulted instruction librarians, and the information literacy rubrics were recommended by a librarian, only writing instructors participated in evaluating the collection of student essays, and the parameters of the assessment were designed by the writing program alone. The assessment team collected 398 student papers written for first year writing classes over the course of two semesters. The learning outcome was for students to "choose appropriate sources, assessing authority and credibility and using a variety of sources. Students in-

teract with source material in their prose (summary, paraphrase, direct quote)." The team found that 70 percent of students had met B-level expectations for research skills.[10]

The process and results of this assessment has renewed our collective interest in the possibilities for librarian and faculty relationships. On both individual and programmatic levels, we can benefit from examining successes and failures of the process and the outcomes, as well as from looking at assessments in other programs (Emmett and Emde, for example).[11] Conversations about information literacy-specific rubrics have inspired and encouraged us to think about deeper questions that our future assessments might target, about how we can assess the strength of our programmatic partnership, and about how our assessments will change as information literacy becomes more embedded in university-wide curriculum; we have begun to conduct our own assessment partially in response to this.

The authors note that their disciplines (library science and composition studies) have intersecting and shared values.[12] The argument underlying *The Value of Academic Libraries* explains how professional collaborations have evolved[13] and can now embrace the new Framework in an effort to develop the metacognitive abilities that enable students to work toward internalizing threshold concepts in the Framework.[14] In the discipline of composition, theorists and practitioners have begun to accept that information literacy learning is tied to the teaching of writing, but this is relatively new. Artman et al. argue that "prior to 2009, the majority of scholarship that seeks to theorize the influences of IL instruction within composition classrooms—or the role of writing in information literacy instruction—appears in journals outside the field of composition."[15] Recent composition scholarship acknowledges that "[r]esearch instruction for introductory students, in particular, is usually the responsibility of first-year composition teachers. Introductory composition courses often include a research component in which the mental and physical activities of doing research are discussed and practiced."[16] While these

are important developments, they also reveal that our work seems to exist in silos; the value of collaboration instead of co-evolution cannot be overstated.

Mackey and Jacobson[17] and others after,[18] argue that librarians must make use of these shared values, and take into consideration the changing needs of institutional and programmatic assessment. In this case, the authors probe the systematic shifting and advancing definition of information literacy by investigating the facets of the threshold concepts and metaliteracies present within their classroom action research. It is important for us to identify and unpack the big messages we see behind the Framework and our fields' overlapping interests in it in order for us to further describe our study.

The intertwined ideas of threshold concepts and metaliteracy go hand in hand with this notion—teachers of writing, long-committed to the notion of writing as process,[19] have begun to embrace research as process, too.[20] That process, we have learned from our library colleagues, is one that is fraught and recursive; as many ask students to reflect on their writing process, behaviors, and "habits of mind" (reiterated in NCTE's most recent Framework for Success in Post-Secondary Writing)[21] so central to both writing and information literacy instruction, the concept of metaliteracy asks us to do the same.[22] Again in the overlapping attention to an interest in the Framework's "scholarship as conversation," we see the connections between information literacy and composition, long influenced by Burke's "parlor tricks"[23] and Oakeshott's conversation metaphor and Bruffee's extension of it,[24] and evident in the oft-used student text by Graff and Birkenstein, *They Say, I Say: The Moves that Matter in Academic Writing.*[25]

The collaboration between librarian and teacher is not new, even in composition literature. Librarians have long reconsidered the "one-shot" library session, for example, in the field of information literacy's literature, as articulated by Jacobs and Jacobs. The "one-shot," thankfully, has finally come under attack in the composition world, too.[26] Compositionists are beginning to see the value of collaborating in more mean-

ingful ways with librarian colleagues: Artman et al. note that "…most compositionists would assert that simply helping students use and cite research in their writing is not sufficient to make them more thoughtful writers or more successful students. Instead, writing instructors have increasingly come to see information literacy (IL) as a key element in a range of critical activities."[27] Jacobs and Jacobs, of course, see the collaboration between faculty and librarians as instrumental; this view is only just starting to make its way into composition scholarship as the university begins to value information literacy.

This realization has happened at our institution and many others—Cahoy and Schroeder describe information literacy as "increasingly embedded in the curriculum and that academic librarians' relationships with other faculty were changing."[28] Still, Artman et al. argue "that IL has not yet been adequately and practically integrated within introductory composition classrooms or curricula."[29] As we design and continue our assessment, we recognize how important it is to continue examining our fields' shared values; in this project, we attempt to see the ways our literatures both overlap and provide insight to one another. For example, recent composition scholarship's interest in "liminality" echoes the "threshold concepts" in the way that "[i]ntroductory composition classes serve as such a threshold into the 'new world' of the academy."[30] Purdy and Walker examine the role of a student's "research identity" in moving toward the threshold of joining the academic community and conversation.[31] The concept of "research identity" they discuss clearly refers to the kind of habits of mind, attitude, or dispositions that interest the Framework.

Further, the threshold concepts remind us that difficulty and frustrations in the research process are worth cataloging—in Hofer, Brunetti and Townsend's words, the "troublesome concepts." They argue that "a pedagogical approach called threshold concepts can help us pinpoint the issues that confound our students, in order to improve our teaching in these areas,"[32] noting the significance of looking at the areas where students struggle the most.

Compositionists embrace a similar interest in using "difficulty" to highlight areas of attention for both students and teachers. This is especially true in the influential work of compositionists Salvatori and Donahue, who have long studied the cognitive and rhetorical process of reading; they write about the value of zeroing in on "difficulty" as a source of instruction, understanding, and reflection.[33] Their work applies as much to the research process as to the reading process, and we see connections between their theories of difficulty and what Oakleaf calls "stuck places." Oakleaf notes the value of difference, too, in individual learning;[34] this, of course, is emphasized in the Framework's attention to disposition, willingness, and "habits of mind."

Our interest in this scholarship offers ways for instructor and librarian partnerships to rethink "library sessions," both in location and in scope; information literacy instruction does not always have to happen in the library, and sessions with librarians can involve the discussion of concepts and theories behind instruction that are characteristic of the explicit teaching[35] valued by many compositionists. Yes, the cognitive skills and learning outcomes matter, and, as Cahoy and Schroeder recognize in their discussion of affective learning, we need students to learn those skills in order to begin the process of "internalizing" the concepts represented in the Framework.[36]

Like information literacy theorists and practitioners, composition studies, too, has an interest in assessment (often that "interest" is derived from program, department, or university-level mandates to demonstrate success or failure), which is documented in the literature since the 1970s and championed by Edward M. White. White, and later Brian Huot,[37] argue against the use of standardized testing as the primary form of assessment, and favored more holistic approaches.[38] But the Framework, as well as the ways we might assess "research as process" learning, has yet to be considered in depth in the field of composition studies.

This gap in the composition studies literature is evidence that assessment has been and still is divided into disciplines.[39] We think it is time the world got smaller. We need more collaboration across disciplines, programs, and divisions in the university to execute a sustainable way of thinking about assessment that is not standardized but has standards, that is discipline-specific but crosses disciplines in key conceptual ways. We also need to think about and acknowledge that any assessment involving the Framework will be difficult because it concerns conceptual learning and threshold concepts rather than discrete skills or cognitive abilities, as noted by Cahoy and others.[40]

Questions remain about how to assess conceptual, internalized, affective learning as opposed to cognitive learning codified by skills-based "learning outcomes." Cahoy and Schroeder raise this in their article about affective learning, which they define as "more ambiguous, less logical, and less clearly defined than the cognitive domain."[41] They note, "the affective domain comprises a person's attitudes, emotions, interests, motivation, self-efficacy, and values."[42] We see these ideas represented in the Framework's attention to the "dispositions" that enable students to potentially meet the thresholds set out for them. Cahoy and Schroder acknowledge the problems this might present for assessment:

> Affective behaviors are harder to measure and assess; but, together with cognitive skills, they present a holistic picture of student acquisition and mastery of the information process. Affective skills must be present in information literacy standards in order to reinforce for librarians and educators the importance of acknowledging and addressing students' feelings and affective behaviors.[43]

This scholarship encourages us to think creatively about the concept of holistic assessment.

Burkhardt introduced key questions about the assessment process.[44] Jastram et al. examined assessment's ability to shape programmatic thinking about information literacy.[45] Inevitably, this leads us to

think about rubrics themselves, the roles they play in evaluation and assessment, their value, and the need to perhaps rethink them. Knight[46] and Oakleaf[47] offer strategies for seeing the more holistic picture that Cahoy and Schroeder describe. Certainly Allison J. Head of Project Information Literacy,[48] as well as Sandra Jamieson and her co-investigators on the Citation Project,[49] inspire us to think in the long-term, and we are still in the process of re-designing parts of this assessment as we move forward.

Methodology

The authors sought and gained Institutional Review Board approval of their work with students enrolled in the writing professor's courses, WRTG 106: College Writing, Intensive, during academic year 2014-2015. We chose to evaluate the work of this course because it is an unsequenced, one-semester course, whereas the university's other writing courses are sequenced, two-semester courses. Students are placed into WRTG 106 if they have earned Advanced Placement scores of 4 or 5, or they have earned International Baccalaureate credit. The university created this course because it determined that AP or IB credit does not satisfactorily prepare our students for academic writing. The university's course description explains that the course "[d]evelops students' academic writing and research skills. Builds students' abilities to construct extended arguments and synthesize diverse materials. Emphasizes information literacy, including evaluating source material and making strategies and appropriate use of different sources."[50] Thirteen of the fifteen enrolled students during the fall 2014 semester completed the final course assignment and also agreed to allow the authors to analyze their course work for this project.

The assignment, created by the writing faculty member, represents a trend in the writing program at our university—an interest in using the scholarship of a particular discipline as a lens through which to see an object of inquiry. For this assignment, that "object" is something from the realm of popular culture. The final draft of the scholarly essay students write is preceded by a series of scaffolded shorter assignments that help students work through the recursive process of writing and research, and we have worked together to embed reflection and discussion that not only represents explicit teaching about that process, but also encourages students to think critically about their own methods and dispositions. Two annotated bibliographies shape the students' progression through the assignment—in the first, they collect and summarize sources that discuss their object of inquiry directly. In the second, their sources must be discipline-specific, and must represent the angle or approach they will take to their object. For both bibliographies, students annotate five sources they have chosen, and include a Works Consulted page, which provides a window into their source-selection process. They write brief introductions to their research in which they describe their process and the questions that arise as they continue to research.

Students' final project papers and self-reflection Google Docs were anonymized by coding each of the final assignments with a letter that corresponded to an individual. The authors then individually rated each of the thirteen students' work.

In order to assess the students' work quantitatively, the authors created a final assignment rubric (see Appendix 2), adapted from the foundation of the programmatic rubric (see Appendix 1). The rubric rating scale converted letter grades from the programmatic scale to numbers. Thus, 5=A; 4=B, 3=C, 2=D, and 1=F. The rubric also contained two data points that were Yes/No propositions. These items were given this scale: Yes=1; No=2. The authors' scores for each student were averaged in order to determine a mean evaluative score for each student for each component of the rubric. In the end, all students' scores were averaged in order to determine a course-wide mean evaluative score for each component of the rubric.

Additionally, for qualitative analysis, the authors reviewed the students' parallel self-reflections about their dispositions toward the research process. Each of the authors selected textual evidence from the self-

reflections that corresponded to the aims of the assignment's learning outcomes (see Appendix 3). In the end, the authors analyze the mean scoring results derived from the rubric and consider the qualitative data from the self-reflection work.

Data

The two authors rated the students' scores on each rubric item. Each rubric item's scores was added together to form a total of 65 points (five points per item; thirteen students). The total scores range from 50.5 to 53.5. Their respective averages range from 4.208333333 to 4.583333333. These two end ranges correspond to the students' ability to summarize (low total) and to their integration of research, as well as to their angle or approach to the assignment (high totals). See Table 1 for these totals and respective averages. The intermediate totals and corresponding averages in between the ranges fall in this order from highest (most proficient) to lowest (least proficient): provided researched information and commentary about the topic (4.375); formed an original argument and used signal phrases (both 4.333333333); and wrote as if joining a scholarly conversation (4.291666667). See Figure 1 to see how these averages measure against one another.

TABLE 1
Mean Course Scores from Assignment-Specific Rubric

| Point System: 5=A, 4=B, 3=C, 2=D, 1=F; Total Students=13		
Rubric Elements	**Total Points**	**Average**
Research: Info & Commentary about Topic	52.5	4.375
Research: Angle/ Approach to the Topic	53.5	4.458333333
Original Argument	52	4.333333333
Joins a Conversation	51.5	4.291666667
Signal Phrases	52	4.333333333
Summary	50.5	4.208333333
Integrating Research	53.5	4.458333333

Discussion

Thus far, our greatest insights come from the anecdotal data from our collaborative class sessions, and from our students' reflections on their process of working through a scholarly research project. Generally, the quantitative data shows that the majority of students are meeting the source requirements of the assignment, and are engaging with multiple types of research, as mandated by the assignment.

The scaffolding of this assignment does not necessarily pose the research process as one that is linear, but rather leads students through both discrete cognitive skills while considering the larger implications, metaliteracies, and dispositions required at each juncture. The process-oriented nature of the assignment aims to lead students through key components of the process; generally, if students follow along with this scaffolding, we found that they met the majority of basic requirements for the assignment, thus meeting many of the information literacy criteria.

Early in the process, we engage with students in a seminar-style discussion about "searching attitudes," allowing students to reflect on their relationship to and use of Google searches and Wikipedia articles. Throughout, both librarian and instructor are participating in these discussions in the classroom; the scene looks more like a typical class discussion than a library session, but the presence of the librarian reminds students that there are deeper, disciplinary concerns underpinning our conversation. We extend the discussion as they learn about general and then subject-specific databases and specialized web resources. Topics of discussion also include defining scholarship (what is it and where does it go?), the complexity of research tools, the complexity of user skills required to access specific tools, and the complexity of information found in specific venues. Supplemented by readings by Randall McClure,[51] Karen Rosenberg,[52] Kyle D. Stedman,[53] and Graff and Birkenstein,[54] students begin to think of research as contextual, they see their own choices as significant, and they can identify elements of conversations happening in the scholarship they collect. Supplemented by reading responses

FIGURE 1
Mean Course Scores: Plotted on 5-Point Rubric Scale (5=A, 4=B, 3=C, 2=D, 1=F)
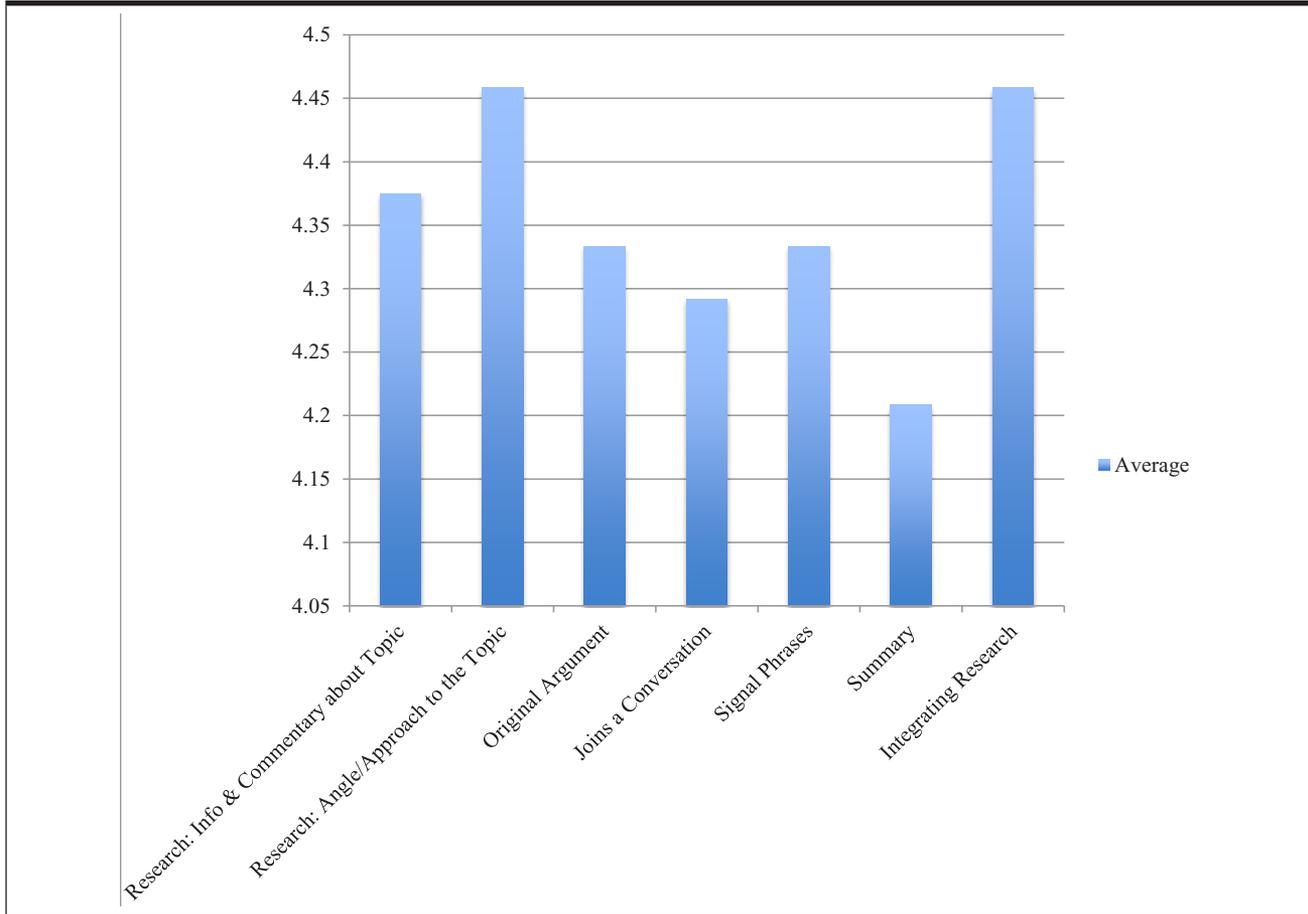
to authors who consider the rhetorical use of research such as Joseph Harris[55] and Joseph Bizup,[56] students see the librarian as a participant in conceptual discussion, not just a skills-based instructor. This practice reflects Meyer and Land's interest in "think aloud" asessements that help externalize learning processes and encourage metacognition.[57] We can see the effects of these discussions in the reference pages of essay final drafts and in research logs.

In pages on their individual Google Docs, students keep reflection and research logs (much like Meyer and Land's "diarised forms of assessment"[58]) that also encourage metacognition. Indeed, we agree with Detmering and Johnson, who argue that student narratives can "capture moments of transition."[59] Students describe what they see as major accomplishments; in this, we find "glimpses into their understanding,"[60]

which reveal that they have begun to think more in depth about what scholarship is and how it works. Many students report that they have begun to think about themselves in this matrix, which we see as a key development in achieving threshold concept progress. For example, one student notes that, although she's not a scholar (represented, in her mind, by "a jacket with elbow pads"), her progress in research and writing have gained her "the name tag that gets [her] a spot at the table." (See Student F in Appendix 3.)

This is not only about "joining the conversation," but also about confidence and attitude—students are developing the confidence required to engage with academic research and writing. Student C asserts that research has become more than "background or back-up to my argument." As she considers her evolution in the assignment, she notes that "previously, [she]

would've only picked research that worked with my argument," but that now, she is able to "talk back to research." This represents a significant move in how the student thinks about herself as a writer and researcher, and also a window into the significance of voice. The student writes: "My voice feels more prominent in my writing," which she says allowed her to break away from "using the argument of grander scholars… simply acting as a tour guide to their arguments." (See Student C in Appendix 3.)

The notion of voice in composition scholarship has always been important, but here we see the metaphor extended to the realm of research and information literacy. We focus a lot of attention on helping students use research to identify and describe ongoing conversations (as the Framework notes), but a significant piece of that puzzle involves students finding their original voice, and their original place in this academic world. Student C also writes that "instead of standing in a room and listening to a bunch of scholars talk, I'm in that conversation as well and my voice is just as important;" in this, we see that confidence and voice can enable students to do the "joining" part we see both in composition texts (Graff and Birkenstein, etc.) and in the Framework.

The complexity of this conversation, in both theory and practice, becomes evident to the student through explicit teaching, reflection, and attention to process. One student notes that she suddenly saw the project as "an academic curiosity," and that research is "a conversation that is constantly evolving, and exciting in the sense that I as the researcher and involved in that conversation in some way." (See Student E in Appendix 3.)

The reflection documents also reveal some of the difficulties students had while researching, and their thoughts about the approaches that helped them move beyond those difficulties. Student B says, "Research is quite labour intensive, requires perseverance and persistence while also requiring some creativity and finesse." (See Appendix 3.) They are also seeing past approaches to these difficulties, and they are critiquing those approaches, analyzing why their previous strategies were inappropriate or dysfunctional: "In the past, I would outline a paper and have conclusive statements that I researched to back up or prove." Here we see the student questioning past practices in a way that is ultimately valuable, as suggested by Salvatori and Donahue,[61] Oakleaf,[62] and Meyer and Land.[63] Instead of hanging onto old habits, the student writes, in this process, she "completely let go of that and blindly entered into research on topics I really didn't know much about and then used that to direct my argument." This revision in thinking about research can also result, for many students, in a degree of pride and excitement. This same student notes that the process "was like a challenge and a puzzle-- Look at me, reader. Look what I'm about to do. I'm about to blow your mind with magic." (See Student H in Appendix 3.) Here, the student expresses a sense of wonder at what she has been able to accomplish—all of this speaks to the kind of confidence and emotion embodied by the affective learning Schroeder and Cahoy describe.[64]

We see, too, that students employ the skills of summary more often, and in their reflections, Student I notes this shift: "This changed how I read scholarly work. Instead of picking out a few quotes or ideas, I looked more at the main ideas of the articles and what the author's point was. This also changed how I incorporated research into my writing." (See Appendix 3.) In part, this outcome reflects the charge of The Citation Project, which notices that students most often "patch-write,"[65] often from the first few pages of a source, and often drop quotations into writing without context (similar findings were suggested by Project Information Literacy).[66] Our assessment also suggests that this was one of the weaker areas for our students, and requires continued attention.

Some students also consider how the process might inform other behaviors in their work in other areas of the university: "Using the same process from this paper [for an assignment in another class], I'm trying not to form any opinions before I read … my research." (See Student H in Appendix 3.) The integration of the research and writing process has allowed

Student H to transfer her skills to work in other courses, and hopefully this becomes part of a bigger picture of information literacy learning.

We recognize that the threshold concepts cannot be met in a single course; this assessment has shown us that we have the potential as collaborative instructors to lay a key foundation through the attention to both learning outcomes and skills, and the kinds of dispositions represented in the Framework. We can do this by collaborating on assignment design and writing stronger assignments that require students to engage in conceptual learning in order to complete them. In a study at Oregon State University, for example, Deitering and Jameson describe assignment design that focuses on the concept of "willingness:" a "motivational" element of critical thinking.[67] They argue that we need to consider students' "willingness to use their brains this way," noting that "clearly, the disposition to think critically is a necessity for students to make the shift from thinking about research as a way to find supporting quotes, to thinking about research as a way to expose themselves to new ideas so they can build new knowledge."[68] When librarians and faculty engage in discussions about these values with a goal of writing more directed assignments, we can not only assess for information literacy learning, but assess our teaching of it as well.

Conclusion

Our project has only begun, but it has already opened up big questions, both about how to execute the Framework, how to collaborate meaningfully and sustainably, how to teach "concepts" and "skills," and how to find a holistic way to assess student learning on all levels. As we continue to collect and analyze data in the coming year, we also plan to re-conceptualize our rubric. This work also requires us to work toward validating its reliability through the use of statistical analysis. In addition, we will seek an extension and revision to our research protocol so that we can continue to collect data and implement the use of an updated rubric.

In our first attempt, we have a collection of student work that shows that attention to "dispositions" in the classroom is significant, especially in seminar-style discussions that include the librarian and faculty member as leaders and participants in such discussions. We will modify future collections as we discover new ways of thinking about assessment, and we will begin collecting and designing assessment for the university's two-course writing sequence. In the spirit of explicit teaching, we aim to continue modeling the kinds of conceptual discussions in our fields for our students, incorporating students into the conversations, and helping them to think about their own role in their own learning of both concepts and skills. Using our first collection, also, to inform our future work, we are left with key questions that will be difficult to address—in reflections or on quantitative evaluations like quizzes or tests, how do we know that students are conveying deep learning? Are they sometimes just telling us what we want to hear? Perhaps we can answer this question by examining how students can transfer what they have learned in our classes to other situations. How can we track what happens with our students as they advance through the disciplinary work of the latter years of their university education? We also see the need to use more advanced social science tools to analyze quantitative data, and we aim to do so in our next round of material collections. In addition, we see our work as central to initiating the programmatic and university-wide discussions about these topics recommended in the Framework.[69] We hope to provide opportunities for librarians and faculty to discuss the meaning and application of the Framework, build local information literacy learning outcomes, and share strategies and approaches. We have created an information literacy committee in the spirit of Jacobson's argument of the need for such a body,[70] staffed by librarians and writing faculty that aims to lead these efforts.

Appendix 1. Writing Program Grading Rubric

	A (Outstanding)	B (Good)	C (Satisfactory)	D (Unsatisfactory)	F (Failing)
Thesis & Argument	The essay's thesis demonstrates ambition, thoughtfulness, and appropriate specificity. The thesis provokes readers to reflect on the topic's subtleties and complexities. Throughout the paper, arguments remain clear, essential, and sound.	The essay has an ambitious thesis but does not fully deliver on its promise, or it may have thoroughly developed and explored a less than demanding thesis. Supporting arguments progress with very few lapses in clarity, soundness, or relevance.	The essay has a thesis, although it doesn't demonstrate ambition or take on a discernible degree of difficulty. The thesis may be too broad to lead to a focused essay. Argumentation in general seems lackluster or obvious; some arguments might be weak due to lapses in logic or insufficient (perhaps irrelevant) evidence.	The essay's unsatisfactory thesis suffers from logical incoherency or facile aims. Argumentation generally suffers from tangential lapses and/or logical fallacies. Evidence is markedly insufficient or irrelevant.	The essay has virtually no discernible thesis or direction. Arguments often bear no relation to other sections of the essay; logical fallacies may abound.
Support	The essay engages a variety of credible perspectives, demonstrating a sophisticated use of support: other views have been carefully considered, sources have been appropriately synthesized, and the analysis offers readers fresh ways to view the source material.	The essay uses substantive support: arguments consistently follow from evidence. The writer effectively illustrates the conversation on the topic. The analysis almost always offers some insights.	The essay's argument is supported but would benefit from more—or better use of—evidence; the essay demonstrates analysis, albeit occasionally superficially. The analysis offers a few insights.	The essay's supporting arguments often suffer from inadequate evidence that is insufficient, irrelevant, or incorrect. Sources may not be appropriate for the assignment. The essay may misinterpret or misrepresent its source material.	The essay's supporting arguments have virtually no evidence or rely disproportionately on inappropriate evidence.
Organization	The essay's organization develops organically from an outstanding thesis. At the global level, the writer reveals a sophisticated awareness of form; locally, paragraphs cohere, and the essay flows without unintended interruptions.	At the global level, the essay's organization reveals a logical, rhetorically effective progression of the argument. On a local level, transitions between paragraphs and sentences create continuity and coherence.	At the global level, the essay's organizational strategies demonstrate basic cohesion and continuity. On a local level, transitions between paragraphs and sentences usually create continuity and coherence, with some exceptions.	At the global level, the essay's unsatisfactory organization results in an essay that confounds the reader. Locally, paragraphs stumble from one to the next and often lack focus and coherence.	The essay's paragraphs lack most defining features of a traditional paragraph: controlling ideas, transitions, unity, and coherence. The same is true of the essay as a whole.

Appendix 1. Writing Program Grading Rubric

	A (Outstanding)	B (Good)	C (Satisfactory)	D (Unsatisfactory)	F (Failing)
Style	The essay engages the reader through a sophisticated control of diction, syntax, and tone. The language is concise, precise, and appropriate for the subject.	The essay's prose itself, not just the subject matter, interests the reader through effectively varied sentence styles and word choices. The language is usually concise and precise.	The essay's prose is adequate and, despite some awkwardness, communicates clearly through competent syntax and diction. There may be some wordiness.	The writing's lack of precision often confuses the reader through unclear word choice or problematic sentence structures. The writing may also demonstrate substantial wordiness.	The writing prevents readers from engaging with the piece on any level: the sentences resist coherency, word choices resist clarity, and overall the prose ignores the basic demands of an audience.
Correctness	The writing has virtually no grammatical, mechanical, or formatting errors. Sources are appropriately attributed, documented, and cited. At this level, the presentation reveals professionalism and attention to detail.	The writing has few grammatical, mechanical, or formatting errors, and they do not distract the reader from the content. Sources are appropriately attributed and cited with very few errors.	The writing has several grammatical, mechanical, or formatting errors, and some errors distract the reader from the content. Sources are documented and cited, though not always strictly in the required format and with little attribution.	The writing has substantial grammatical, mechanical, or formatting errors that distract the reader from the content. Many sources are incorrectly documented and cited.	The essay fails to meet minimum standards of correctness: errors in grammar or mechanics prevent readers from understanding the essay. Sources receive incorrect or no documentation and citation.
	While the preceding elements demonstrate a hierarchical concern, the following discussion regarding adherence or response to assignment must be seen outside that hierarchy; fundamentally, the question comes down to whether or not an essay properly responded to its assigned goals or not. Though an essay may excel at the above elements, one may view an essay's success in the final element below as an equally important concern.				
Assignment Adherence	The essay meets every essential requirement.		The essay meets the majority of the essential requirements.		The essay fails to meet the essential requirements of the assignment.

Appendix 2. Assignment Rubric

Research that provides information and/ or commentary about the topic or object of inquiry
1= none | 5 = appropriately chosen (in types of sources, and in amount of this kind of research)

1	2	3	4	5

Research that provides an angle or approach to the topic (ie not about the topic or object of inquiry itself)
1= none | 5 = appropriately chosen and used to establish framework for original argument

1	2	3	4	5

Original argument
1= not original | 5= original

1	2	3	4	5

Joins a conversation
1= no recognition of conversation | 5 = recognizes and joins conversation

1	2	3	4	5

Signal phrases
1= not at all / no context | 5=appropriately used signal phrases that provide context for research

1	2	3	4	5

Summary
1= not at all | 5 = appropriate summary reflecting understanding of text

1	2	3	4	5

Integrating research
1= none | 5= appropriately "talks to" research

1	2	3	4	5

15 sources

Yes	No

Of the 15 sources, 8 are scholarly

Yes	No

Appendix 3. Selected Student Self-Reflections

Student Code	Self-Reflection
A	I have the tools to read scholarship thoroughly and honestly represent sources in my writing through summary and paraphrase. As I continue to the research that awaits me in other classes, I can take full advantage of the wealth of knowledge that is already published.
B	I don't believe this process has changed my view on research, rather it has reaffirmed what I thought research is and what the collection process would be. Research is quite labour intensive, requires perseverance and persistence while also requiring some creativity and finesse.
C	Now, I have begun to consider research in different ways. I begin to see how it can lend itself to my voice instead of simply acting as background or back-up to my argument. Research can be argued with. Previously, I would've only picked research that worked with my argument. Now I've grown to talk back to research and I've allowed it to change and enhance my argument. My writing has certainly changed through my work on this project. I've begun to consider my own voice more when writing. Previously I may have suppressed it as I believed the voices of the sources more credible and important. My voice feels more prominent in my writing and this assignment allowed me to form my own argument, in my voice, instead of using the argument of grander scholars and simply acting as a tour guide to their arguments. Now, I feel like I'm showing my reader around my argument and the scholars are just helping. Instead of standing in a room and listening to a bunch of scholars talk, I'm in that conversation as well and my voice is just as important.
D	I think what most impressed me about our research papers was how intricate scholarship is. I guess that is little silly to say because that's obvious, but it isn't as obvious until you do it yourself.
E	I also came over more efficient research tools. For example, you introduced me to Mendeley, which has since proven to be extremely effective to have sources on the cloud, networking with other academics, and for helping in the topic literature research process. Since them, I feel as if my citations, research, and ability to research have all improved immensely. All of a sudden, research became a process as well. It was something that often began with a question, an intellectual inquiry or an academic curiosity. It was not something that begins with a pre-formulated thesis, argument already in mind. Research is instead just one fragment of a larger conversation; a conversation that is constantly evolving, and exciting in the sense that I as the researcher am involved in that conversation in some way, even in a small role as the passive observer.
F	I do not expected to be published or even acknowledged because I don't own a jacket with elbow pads and I have not dedicated my life's work to the psychology of emoji but I do feel more qualified than ever to write. Through my research and reading, I have been handed the name tag that gets me a spot at the table. Previously, in writing about anything whether it involved research or not, I never felt as though I had that necessary qualification to be a writer.
G	This process has definitely altered my perception on research because before I simply viewed research as a tool to write papers with factual information. I would read articles and review research and then summarize it in my papers and be done with it. However because of this assignment, I learned to read the research and summarize it and then incorporate in my paper in my own words and combine it with my own ideals. I simply was researching to learn more about the subject and to be more informed. I was able to develop different ideas and brainstorm about what direction I wanted to take my research in.

Appendix 3. Selected Student Self-Reflections

Student Code	Self-Reflection
H	Also, through researching, I saw how academic writing (and writing in general) does not have to be final. It doesn't have to have a definitive conclusion, because isn't that what research is all about anyways? Exploring questions we don't have the answer to? In the past, I would outline a paper and have conclusive statements that I researched to back up or prove. With this process I completely let go of that and blindly entered into research on topics I really didn't know much about and then used that to direct my argument. I also now think that research is making connections between information that's already out there and making some sense of it. In this paper, we made connections between two seemingly unrelated topics, and I really enjoyed that. It was like a challenge and a puzzle-- Look at me, reader. Look what I'm about to do. I'm about to blow your mind with magic. I think the ABs were important because it helped us find arguments out there on our topics and the field of study and then pick from those individual and essentially unrelated arguments to forge our own. This helped me interact with the scholarship a lot more because I had the arguments in front of me to make sense of instead of writing a paper then throwing in some quotes here and there. These bibliographies helped shaped the direction of my argument and allowed me to pull from each scholar to support my purpose. I've chosen to approach an essay for my World Politics class in a similar manner. I'm reading State of the Union addresses from Woodrow Wilson to FDR and looking at how those revealed America's foreign policy. Using the same process from this paper, I'm trying not to form any opinions before I read them and am focusing on the language within the speeches to then guide my research and argument.
I	I had always decided what I wanted to say and then found research and examples to back up my claim. It was a new experience to let the research guide me to an argument. My idea of research has changed throughout this process. Instead of seeing research as just something to back up an established claim, I realized research can inspire questions, steer me toward new answers, and provide connections between ideas. As I wrote my draft, it interested me to see how connections were formed between the different types of sources found in the bibliographies. Also, they made me sit down and really look at sources without the traditional "let me pick out a quote or idea to use and then I'm done" mindset. This changed how I read scholarly work. Instead of picking out a few quotes or ideas, I looked more at the main ideas of the articles and what the authors point was. This also changed how I incorporated research into my writing. Since I had found the research a while before I sat down to write the paper, I had less to gather when I was actually writing, and I realized I was shaping my argument to the research I had found rather than going out to find research to support an already formed argument. Also, using scholarly sources changed my ideas about paraphrasing/summarizing vs quoting. A lot of the articles were long and densely written, and there was rarely one quote that represented the author's full ideas. Throughout the paper, I tended to include more paraphrasing and summarizing to capture the author's full ideas. Another writing change was that I included more "I Say" in my paper while in the past I tended to use an exact argument I found in research as my main argument.

Appendix 3. Selected Student Self-Reflections

Student Code	Self-Reflection
J	I've positioned my argument to more directly respond to conversations within the feminist field. Not only have I increased my proficiency in the use of databases, I've also been pushed to read and research more efficiently and smartly. I've become familiar with the basic APA style format of research papers and such knowledge has been crucial in both the research and writing of my paper. The slow process leading up to the writing of the academic essay was helpful in allowing me to mull over and flesh out my own thoughts, opinions and experiences related to my topic. It provided room for me to explore what I was truly interested in and where I wanted to investigate further.
K	Before I would have thought that I needed to phrase an argument or "thesis statement" and then find research to back it up, but now I realize that a good argument really can't come until you've gained enough knowledge about a topic through research to be able to make a coherent argument, that with even more research can even change. So writing is much more of a process than I had thought previously, and research is more exploration into a topic rather than searching for proof. If I had known the assignment from the off-set I would have honestly thought "Ok I just have to find 10 pages worth of crap and cite these correctly."
L	This research process taught me the value of the humanities and the amazing dedication it takes to be a "scholar." Not only does one have to be invested in searching for research and analyzing that research, but the scholar spends day in and day out drawing connections between texts that seemingly have no relation to each other, determined that they will all somehow be synthesized into something that will make sense to a reader. Scholarship itself exists as the difficulty in voicing one's opinion and saying something new in a conversation--this is not easy to do. My past perceptions and appreciations for the field have, throughout the course of the semester, taken a complete turn around. The ability to dedicate one's life to a specific cause through research, synthesis, analysis, and commentary is in no way the "easy way out". Limiting my thoughts during the research process, though difficult, was something I see in retrospect as essential to the writing process. In order to discover something new about a topic, it's essential to think broadly and not limit any new possible knowledge that leads to a different perspective. In research, writing, arguments or learning anything, an open mind can lead to a greater understanding which may then leave room for the opportunity to engage.

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