Title: A Pragmatic and Flexible Approach to Information Literacy: Findings from a Three-Year Study of Faculty-Librarian Collaboration

Authors:

Barbara Junisbai[a],[1] M. Sara Lowe[b],[2] [3] Natalie Tagge[c] [4]

[a] Assistant Dean of Faculty, Pitzer College, 1050 N Mills Ave, Claremont, CA 91711.

[b] Assessment Librarian, Claremont Colleges Library, 800 N. Dartmouth Ave., Claremont, CA 91711.

[c] Social Sciences Team Leader & Librarian, Claremont Colleges Library, 800 N. Dartmouth Ave., Claremont, CA, 91711 USA, natalie_tagge@cuc.claremont.edu

Abstract

While faculty often express dismay at their students' ability to locate and evaluate secondary sources, they may also be ambivalent about how to (and who should) teach the skills required to carry out quality undergraduate research. This project sought to assess the impact of programmatic changes and librarian course integration on students' information literacy (IL) skills. Using an IL rubric to score student papers (n=337) over three consecutive first-year student cohorts, our study shows that when faculty collaborate with librarians to foster IL competencies, the result is a statistically significant improvement in students' demonstrated research skills. Our study also reveals a collaboration "sweet spot": The greatest gains accrue when librarians provide moderate input into syllabus and assignment design, followed by one or two strategically placed hands-on library sessions. Successful collaboration thus need not entail completely overhauling content courses so as to make library instruction the centerpiece. Quite the opposite, librarians can help reduce the potential burden on faculty by supporting discipline- and course-specific research goals, as well as by sharing resources and best practices in IL pedagogy.

Keywords

information literacy, research skills, first-year students, first-year seminars, faculty-librarian collaboration

---

[1] Present address: Assistant Professor of Organizational Studies, Pitzer College, 1050 N. Mills Ave, Claremont, CA 91711, USA, bjunisbai@gmail.com.

[2] Corresponding author at: 755 W. Michigan St., Indianapolis, IN 46202, USA, 1-317-274-0349, mlowe@iupui.edu

[3] Present address: Educational Development Librarian, University Library, Indiana University-Purdue University Indianapolis, 755 W. Michigan St., Indianapolis, IN 46202, USA, mlowe@iupui.edu.

[4] Present address: Educational Services Librarian, Ginsburg Health Sciences Library, Temple University, 3500 N. Broad St., Philadelphia, PA 19122, USA, natalie.tagge@temple.edu

A Pragmatic and Flexible Approach to Information Literacy:

Findings from a Three-Year Study of Faculty-Librarian Collaboration

Abstract

While faculty often express dismay at their students' ability to locate and evaluate secondary sources, they may also be ambivalent about how to (and who should) teach the skills required to carry out quality undergraduate research. This project sought to assess the impact of programmatic changes and librarian course integration on students' information literacy (IL) skills. Using an IL rubric to score student papers (n=337) over three consecutive first-year student cohorts, our study shows that when faculty collaborate with librarians to foster IL competencies, the result is a statistically significant improvement in students' demonstrated research skills. Our study also reveals a collaboration "sweet spot": The greatest gains accrue when librarians provide moderate input into syllabus and assignment design, followed by one or two strategically placed hands-on library sessions. Successful collaboration thus need not entail completely overhauling content courses so as to make library instruction the centerpiece. Quite the opposite, librarians can help reduce the potential burden on faculty by supporting discipline- and course-specific research goals, as well as by sharing resources and best practices in IL pedagogy.

Introduction

Recent years have witnessed a growing understanding that fostering college students'

critical thinking and writing hinges in large part on fostering their ability to find quality

information from reliable, credible, and authoritative sources. Indeed, teaching students how

to critically engage with source materials and weigh evidence is a central tenet of the long-

standing information literacy (IL) movement among librarians in higher education (Association

of College & Research Libraries, 1989). Recognition of IL as a core competency can now be

found in a number of departments and in a number of disciplines (Kuglitsch, 2015; Weiner,

2014), including history and art history (Cassidy & Hendrickson, 2013; Garland, 2014; Gendron

& Sclippa, 2014; Porras-Hein & Miller, 2004; Hicks & Howkins, 2015), political science (Cavdar &

Doe, 2012; Bob, 2001; Fitzgerald & Baird, 2001; Gilbert, Knutson, & Gilbert, 2012; Marfleet &

Dille, 2005; Stevens & Campbell, 2008; Williams, Goodson, & Howard, 2006; Williams & Evans,

2008), psychology (Dold, 2014; Lampert, 2005), and sociology (Dodgen, Naper, Palmer, & Rapp,

2003; Caravello, Kain, Kuchi, Macicak, & Weiss, 2008; Proctor, Wartho, & Anderson, 2005). IL is

also now a common goal of first-year programs at large public universities, community colleges,

and private liberal arts institutions (Fain, 2011; Gawalt & Adams, 2011; Gross & Latham, 2011;

Karshmer & Bryan, 2011; Kim & Schumaker, 2015; Manus, 2009; Moore, Black, Glackin, Ruppel,

& Watson, 2015; Rinto & Cogbill-Seiders, 2015; Samson & Graneth, 2004; Wilkes, Godwin, &

Gurney, 2015).

Despite growing evidence of the positive link between promoting IL skills and students'

demonstrated ability to think critically and express this in writing, many faculty remain skeptical

of the benefits of adding an information literacy component to their courses on top of everything else that they want and need to cover. Given "competing agendas" and "divergent priorities," IL may be seen as just another add-on required by administrators (Snavely & Cooper, 1997). While faculty may agree that nurturing "student research, writing, and critical thinking competencies… related to the concept of information literacy" (Stevens & Campbell, 2008, p. 225) is a laudable goal, they also understand that integrating IL into courses— especially in large survey classes and courses already heavy with content—presents its own set of tradeoffs. A primary concern is the potential for increased faculty workload in the face of uncertain gains in student performance (Marfleet & Dille, 2005; Robinson & Schgel, 2005).

Our three-year study of papers from 44 courses specifically designed for first-semester first-year students and taught by faculty across disciplines reveals that thoughtfully integrating a library component goes a long way in helping students develop IL "Habits of Mind" (Claremont Colleges Library, 2013). Importantly, faculty-librarian collaboration, when calibrated to support discipline- and course-specific IL goals, need not be extensive or, as some faculty may fear, burdensome. That is, integrating IL need not entail a complete overhaul of course content and/or extensive modification of course scheduling (for example, by adding a semester-long laboratory component) in order to have an impact. Instead, an *intermediate level* of collaboration between faculty and librarians in designing and scaffolding assignments to build students' IL skills can produce statistically significant gains. Librarian-faculty conversations about the goals of the course, about faculty experience and comfort level with IL,

and about the specific ways that librarians can help faculty achieve their goals were crucial to successful collaboration.

In this article, we describe our institution's flexible approach to IL and the results from the first three years of our study. We place our experience with and faculty concerns about IL within the broader literature on faculty perceptions of undergraduate research, faculty ambivalence toward teaching research skills, and ambivalence in the IL literature regarding how much faculty-librarian collaboration is required to have an impact on student learning. We then provide some brief background on the institutional setting that forms the context of our study, as well as an overview of the range of collaborations that we offer faculty at our institution, including specific examples. Thereafter we describe the results of our annual authentic assessment of student IL, as demonstrated in representative writing assignments.

Widespread Agreement on the Need for IL, but Ambivalence about How to Teach It

The extant literature on information literacy, including the focus on best practices and the measurable impact of IL-targeted instruction, reveals a general consensus about the importance of fostering information literacy among college students. In particular, both professors and librarians seem to agree that there is a real--if perhaps unmet--need for students to become critical consumers of information and competent researchers. In a recent study of four-year colleges and universities in the United States, nearly half of faculty surveyed across disciplines strongly agreed that "[their] undergraduate students have *poor skills* related to locating and evaluating scholarly information" (Housewright, Schonfield, & Wulfson, 2013, p.

53 [emphasis added]; see also Schonfeld, Wulfson, & Housewright, 2012). Such assessments

suggest that many undergraduates are completing their degrees without having learned how to

select and evaluate materials, including scholarly sources, when conducting research projects

(Centellas, 2011). If faculty are providing opportunities for students to practice cultivating IL-

related skills, and if the achievement of these skills is an accepted pedagogical goal, what is

preventing students from mastering them (Baglione, 2008; Cavdar & Doe, 2012; Stevens &

Campbell, 2008; Williams & Evans, 2008)?   As members of a democratic polity and "knowledge

economy," moreover, young adults need to develop critical thinking and information

assessment skills while *in college* so as to meet the expectations associated with citizenship and

the workplace *after colleg*e (Dolowitz, 2007; Fitzgerald & Baird, 2011; Thornton, 2010). As Bob

argues, "[i]f [faculty] can strengthen [their students'] critical thinking and writing skills, [they]

will have contributed something that lasts [far] after substantive knowledge fades" (2001, p.

653).

Ambivalence #1: How Should Students Become Information Literate?

Despite a broadly shared normative belief in IL, as noted above, it is not clear where the

responsibility for teaching IL-related skills lies. How should we go about teaching IL, and who

should be doing the teaching? Faculty responses to the 2013 survey reveal ambivalence

regarding these basic questions. A clear majority of faculty in the social sciences and

humanities—about 65% and 85%, respectively—assign a research paper in their courses

(Housewright, Schonfeld, & Wulfson, 2013, p. 48); yet only about 40% strongly agree that it is

their responsibility to teach students the skills to accomplish the task set before them. Just

two-fifths of faculty surveyed acknowledge that "developing the research skills of my

undergraduate students related to locating and evaluating scholarly information is principally

my responsibility" (Housewright, Schonfeld, & Wulfson,. 2013, p. 53-55).[1] In addition, only 20%

feel strongly that this responsibility lies with their institution's academic library[2]—despite the

fact that nearly 60% rate the library as "very important" in "help[ing] undergraduates develop

research, critical analysis, and information literacy skills" (p. 67).[3] These contradictory

statements suggest that faculty, while generally in agreement about the importance of

undergraduate research, are far less certain of either their own role or that of the library in

helping students cultivate the habits required for success.

Earlier studies confirm faculty sentiments as revealed in these data. As with the 2013

survey of U.S. faculty referred to above, professors in a 1992 survey of faculty at York University

in Ontario, Canada, emphasized the need for improving undergraduate research skills (Cannon,

1994). Most of the faculty rated their fourth-year students' research skills as "satisfactory," and

only 3% described third or fourth year students as "very good" at conducting research (p. 528).

Interestingly, while faculty tend to agree that students should be developing IL skills, they

appear reluctant or unsure about explicitly cultivating these skills in their content- and

discipline-specific courses, as opposed to skills-related courses in the first year (Gullikson,

2006). Furthermore, according to McGuinness (2006) and Cannon (1994), faculty often assume

---

[1] 12% of those polled strongly disagree with this statement (Schonfeld, et al. 2012).

[2] 32% strongly disagree (Schonfeld, et al. 2012).

[3] In sharp contrast, 95% of library directors surveyed described this is as one of the library's central functions (69).

that students will develop information literacy competencies on their own and that the primary

responsibility for becoming information literate lies with the students themselves. Weiner

similarly finds that faculty share "the expectation that students [already] know how to avoid

plagiarism, find articles and books, and define topics for their projects before… tak[ing] their

courses" (2014, p. 5).

Ambivalence #2: Faculty-Librarian Collaboration is the Solution, But at What Level?

As we have seen above, various surveys highlight faculty ambivalence as to where the

responsibility for teaching research skills lies. One solution, as demonstrated in numerous

empirical studies, is for faculty and librarians to work collaboratively to promote information

literacy. Indeed, a growing body of research indicates that student learning is enhanced when

faculty and librarians work together (Manus, 2009; Cassidy & Hendrickson, 2013; Gilbert,

Knutson, & Gilbert, 2012; Hearn, 2005; Lampert, 2005; Lindstrom & Shonrock, 2006; Mackey &

Jacobson, 2005; Pierce, 2009; Maybee, Carlson, Slebodnik, & Chapman, 2015; Porras-Hein &

Miller, 2004; Rinto & Cogbill-Seiders, 2014; Stevens & Campbell, 2008). Yet, here, too, we are

faced with ambivalence. Across the board, collaboration is touted as an effective way of

reaching out to students, promoting quality research, and supporting the learning goals and

activities of specific courses.

However, there is implicit disagreement about how much faculty-librarian collaboration

is needed to achieve palpable results. Some studies take a maximalist approach, suggesting

revamping student learning outcomes at the curricular (or campus) level, integrating multiple

(five or more) library instruction sessions into courses, meeting individually with students at each step of the research cycle, faculty-librarian team teaching, or adding a hands-on semester long research lab to existing courses (Atwong & Heichman Taylor, 2008; Cassidy & Hendrickson, 2013; Gilbert, Knutson, & Gilbert, 2012; Hearn, 2005; Lampert, 2005; Lindstrom & Shonrock, 2006; Mackey & Jacobson, 2005). Others suggest that requiring students to attend just one library session makes a noticeable difference to student learning (Kenney, 2008; Pierce, 2009; Rinto & Cogbill-Seiders, 2014; Walker & Pearce, 2014).

Information Literacy in A Liberal Arts Context: The Need for a Flexible Approach

As might be anticipated from the contradictory findings described in the previous section, our study is designed to address both of these sources of ambiguity. Echoes of faculty uncertainty about teaching IL reverberate at our institution, a highly selective liberal arts college with an emphasis on faculty independence in teaching. One area in which this ambivalence has been clearly manifest is in the first-year seminar (FYS) program, which is taught by faculty across disciplines on a voluntary basis.[4] At many colleges and universities, the FYS serves as a mechanism for introducing students to writing and research at the college level. This is no different at our institution: According to the course catalog and other literature about

---

[4] Required of all entering students, first-year seminars are taught in the fall by faculty in the sciences, social sciences, and humanities. Faculty select the course topic and materials and design the assignments. Because political science is one of largest majors, each fall 2-3 faculty in the department teach a FYS. In addition, because our students and faculty tend to be politically engaged and/or use a political lens for analyzing the world, many seminars touch upon topics that are addressed in political science courses.

the program, first-year seminars are explicitly designed to help students become more literate people who think, read, write, and speak both critically and competently.

Yet, a baseline IL assessment of student papers written in fall 2011, along with a series of conversations and focus groups with faculty (and an online student survey) undertaken in spring 2012, revealed little consensus about how to foster critical thinking and effective research. In other words, our faculty exhibited the same ambivalence manifest in the literature on IL. Although faculty at our institution broadly agree that information literacy should form a core part of the FYS (i.e., there is consensus on the normative importance of IL), they were not able to clearly articulate a plan for teaching these skills (i.e., there is disagreement about how to promote IL in practice). This is where the library and director of the first-year seminar program stepped in and the idea of flexible, faculty-driven collaboration was born.

Before detailing our flexible approach to faculty-library collaboration, we first describe our institutional context in some detail to demonstrate where we started and the progress that has been made to date. Our institution is a member of a consortium of seven contiguous but independent institutions situated around a common library. Prior to 2012 librarian involvement in the FYS classes was not programmatic, but was entirely based on faculty reaching out to a librarian for collaboration. The librarian was typically the faculty member's library subject specialist.

In the same way that systematic FYS faculty-librarian collaboration is a new phenomenon at our institution, information literacy as a core first-year competency is also a recent development. Prior to collective discussions among faculty, librarians, and the FYS

director about the findings from the focus groups, student papers, and student feedback on their learning needs, few faculty had specified IL as a learning objective in their individual seminars. Other FYS goals, like socialization into college life, essay writing, and social responsibility, had been given higher priority, depending upon which professor was teaching the course.

However, in response to first-year student survey responses insisting on more consistent research training, faculty came to accept arguments in favor of relatively greater standardization across seminars. Many faculty, it turns out, were eager for improved institutional support so as to minimize their own pedagogical learning curve. In response, librarians and the director of the FYS program devised a flexible mechanism by which faculty could promote IL habits of mind, should they so choose. To foster faculty buy-in, we worked to appropriately systematize collaboration beginning in spring 2012. Appropriate systematization entails providing faculty with opportunities to incorporate IL in an easy and tailored manner so as to emphasize the benefits that collaboration can bring to teaching and learning in the FYS. Instead of requiring extensive collaboration with librarians, which would not work well at our institution, we focused on incorporating incentives that would encourage collaboration at a level that matched each professor's preference. Since the spring of 2012, librarians are now paired in advance with a particular seminar based on area of subject expertise and interest. (In a few cases faculty request a specific librarian, and the library does its best to accommodate the request.) Approximately ten librarians participate in the FYS pairings each year.

Given that faculty at our institution have considerable autonomy in designing and teaching their courses and that professors teach in the FYS program on a voluntary basis, we placed flexibility at the heart of all faculty-librarian collaborations. Flexibility means that librarians work with seminar faculty to customize their IL contributions to the FYS according to the professor's goals and pedagogical approach, the syllabus, and course context (Maybee, Carlson, Slebodnik, & Chapman, 2015). Pairings take the form of one of three "scenarios" (i.e., minimal, intermediate, and substantial collaboration), depending on the individual faculty member's preference and comfort level. The decision to offer different levels of collaboration was a creative and pragmatic response to our institution's culture. Faculty culture, as previously noted, reflects many of the faculty concerns about IL in evidence in other studies.

Just as voluntary collaboration fit well with our institutional culture, providing a range of collaboration options (from no collaboration to extensive collaboration) matches the implicit debate in the literature on IL. By offering faculty a choice, we are in a stronger position to adjudicate between maximalist and minimalist approaches to teaching IL. Thus, our flexible approach is not only responsive to faculty preferences, but also allows us to test whether augmented collaboration (and to what degree?) is an improvement over traditional "one-shot" library instruction. For IL assessment purposes, levels of collaboration are coded from 1 to 4, as follows. If a professor chooses to forego collaboration with a librarian, this is level 1; minimal collaboration is level 2; intermediate collaboration level 3; and substantial collaboration is coded at level 4. Collaboration levels are described in Table 1, followed by two sample collaborations at levels 3 and 4 in Table 2. To illustrate how collaborations play out in the

classroom, in the next three paragraphs we also include brief synopses of specific

collaborations at levels 2, 3 and 4. (Recall that level 1 entails no collaboration, and the faculty

member is free to approach IL individually without librarian assistance.)

Table 1. Faculty-Librarian Collaboration Levels

Level 1: No collaboration	● No mention of IL in syllabus ● No librarian input into research assignment(s) design ● No library instruction ● No course-specific online research guide ● Students do not complete online Start Your Research Tutorial and quiz
Level 2: Minimal collaboration	● Brief mention of IL in syllabus ● Minimal librarian input into research assignment(s) design ● One-shot library instruction ● Course-specific online research guide ● Students may complete online research tutorial and quiz
Level 3: Intermediate Collaboration	● IL directly integrated into syllabus and course, but not graded assignment ● Modest librarian input into assignment(s) design ● 1-2 instruction sessions ● Course-specific online research guide ● Students may complete online tutorial and quiz
Level 4: Substantial Collaboration	● IL directly integrated into syllabus, course, and graded assignment(s) ● Significant librarian input into assignment(s) design ● 2+ instruction sessions/class visits ● Course-specific online research guide ● Students complete online tutorial and quiz

Table 2. Sample Faculty-Librarian Collaborations, Levels 3 and 4

Level 3: Intermediate Collaboration	● Course librarian and library mentioned on syllabus as trusted resources ● After discussion with course librarian, faculty added annotated bibliography assignment ● 2 instructions sessions (1st intro to library, 2nd assignment-focused) ● Librarian created course-specific online research guide ● Students completed citation portion of online tutorial and quiz ● Librarian gives feedback on annotated bibliographies
Level 4: Substantial Collaboration	● IL included as course learning outcome in syllabus ● Course librarian and library mentioned on syllabus as trusted resources ● Significant librarian input into syllabus, assignment(s) design, scaffolding, and timing of library sessions ● Professor adopted library's IL rubric to clarify expectations of student work and to grade research assignment

	● 2 sessions (1st inquiry focused, 2nd evaluation focused) ● Librarian created course-specific research guide ● Students completed online tutorial and quiz ● Librarian invited to attend end-of-semester student presentations

Level 2: In this collaboration the professor requested a "one-shot" instruction session with the goal of introducing students to the library's resources. The faculty member was interested in the librarian's suggestion that a LibGuide[5] would be helpful for the students, so the librarian created a research guide for the class. The syllabus was not shared with the librarian until a few days prior to the instruction session; therefore, the librarian did not have an opportunity to comment and potentially collaborate on syllabus design. The faculty member distributed the final research paper prompt at the instruction session. The librarian attempted to address the research paper prompt and connect it to the instruction session, but this was not particularly successful since the learning outcomes and lesson plan for the session had been developed without knowledge of the assignment prompt. The instruction session covered basic library resources, such as the library catalog and Academic Search Premier.

Level 3: The professor and librarian met at the beginning of the semester, so that the faculty member could share the research assignment and syllabus. Together they developed a plan for the class that included the librarian building a custom LibGuide, the librarian conducting two instruction sessions, students completing the citation module of the library's online *Start Your Research Tutorial* and accompanying quiz, and the librarian reviewing and

---

[5] LibGuides are a proprietary version of Web-based research guides. Libraries subscribe to LibGuides from the provider, SpringShare, and can create and customize an unlimited number of research guides. See http://springshare.com/libguides/.

commenting on students' annotated bibliographies. In the first 30-minute instruction session, the librarian visited the class and introduced the course LibGuide and reviewed the library website, and the second session focused on specific skills and resources directly related to the end of term research paper. These skills included differentiating between primary and secondary sources, developing keywords, and searching for and evaluating resources.

Level 4: The professor and librarian met multiple times allowing the librarian to collaborate on syllabus and assignment design. Information literacy was included in the syllabus as a course learning outcome. Together, the faculty member and librarian developed a plan for the class that included the librarian building a custom LibGuide, students completing the library's *Start Your Research Tutorial* and accompanying quiz, and the librarian conducting two instruction sessions focused on specific skills and resources directly related to the end of term research paper. The two instruction sessions were both full class sessions. The first session introduced students to library resources and allowed them to begin searching for resources on their topic. The second session was focused on a discussion of evaluating resources.

Research Design and Methods

Our study is designed to answer three interrelated questions. First, we wanted to see if FYS faculty would be responsive to our flexible approach to collaborating with librarians. How would faculty respond? Would they forego collaboration or embrace it? Second, we wanted to determine whether there would be any gains in student IL performance once information

literacy was consciously integrated into the FYS program. Overall, did students exhibit

improved research skills once IL was introduced as a core competency? Third, we wanted to

test if there were differences in student IL performance depending on the level of faculty-

librarian collaboration. Is greater faculty-librarian collaboration associated with greater gains in

student information literacy?

To answer the latter two questions, we scored a total of 337 papers (n=87 in 2011, n=99

in 2012, and n=151 in 2013) using an IL rubric (see Appendix) originally designed at Carleton

College and substantially edited for local use (Gould Library Reference and Instruction

Department, 2012). The rubric was chosen based on its alignment with Association of College

and Research Libraries Information Literacy Standards (Association of College & Research

Libraries, 2000) and because it was developed for students, unlike other rubrics such as those

from the American Association of Colleges & Universities, which are intended for high-level,

programmatic assessment and not geared towards pedagogy (American Association of Colleges

& Universities, 2007). Aligned with the standards, and intended primarily to score written

work, the rubric has three areas: attribution; evaluation of sources; and communication of

evidence (how well students integrated their sources). The rubric scale ranges from 1 to 4,

where 1 is initial, 2 emerging, 3 developed, and 4 highly developed.[6]

Minor changes to the original rubric have been occurring gradually each year since

implementation based on feedback from librarians and faculty. Edits have primarily been to

clarify and standardize wording across the scale ranges. Because the changes were not to

---

[6] The rubric is also available online [the url was deleted for peer review purposes].

substantive elements of the rubric they did not likely impact reliability between cohort groups, especially as the same group of raters scored the papers each year. Prior to scoring the papers, all raters participated in norming sessions to calibrate the rubric. During the first two years (2011 and 2012), librarians scored papers individually. In 2013, the methodology was adjusted so that, after the norming session, librarians scored papers in interrater pairs.

As stated, papers were collected from three consecutive years of FYS classes (2011, 2012, and 2013). Only written work that integrated outside sources, thus allowing scoring on all three rubric areas, was evaluated. In 2011, papers were solicited by the Assistant Dean of Faculty. Samples from 16 of 18 sections were collected. Of n=93 total papers collected, n=87 were viable for scoring using the rubric. In 2012, all papers from 14 of 19 sections were collected (n=184 total papers of which half from each section were sampled for scoring, n=99). In 2013, papers from 15 of 19 sections were collected (n=264 total papers of which about two-thirds were sampled for scoring, n=150). While paper collection was more systematic in 2012 and 2013, due in part to a faculty culture built on autonomy, it was never mandatory. As might be expected, faculty who opted out of having a librarian in their class were the least likely to submit their papers.

Papers from the first two years (2011 and 2012), were scored together for one score in each rubric area. In 2013, to quantify the impact of librarians on student information literacy scores, collaboration levels (again, 1=none to 4=substantial) were self-reported by librarians for each FYS and then associated with rubric evaluation data. Because faculty who did not collaborate with librarians were unwilling to submit their papers for evaluation on an

information literacy rubric, there was no control group (papers in courses with no librarian collaboration). This is a weakness in the methodology, however, as this project was undertaken as assessment, and not pure research (Upcraft & Schuh, 2002), the authors worked with the available dataset.

As with most FYS programs, professors rotate in and out of the program, each teaching a topic of interest to them. While there are some courses (or topics) that are taught every year, some are taught only one year. This makes a 1-1 course comparison for each year difficult. However, common learning outcomes were developed for the FYS program in 2012 so assessment of a final written product compared across consecutive years was determined to be the best available methodology to assess the effectiveness of the program modifications and information literacy integration discussed earlier. This methodology is similar to rubric assessment of senior capstone writing where an institution assesses each cohort of graduates based on common learning outcomes to determine if programs are adequately teaching students (Rhodes & Finley, 2013, p. 30).

Results

Results of our flexible, faculty-driven approach to IL collaboration were immediately tangible. Within two years, we witnessed not only an increase in the number of seminars paired with a librarian, but also a progression in collaboration scenarios from heavy reliance on "one-shot" library instruction (i.e., minimal collaboration) to greater faculty openness to intermediate and substantial collaboration. Whereas only one third of FYS faculty opted into IL

16

instruction in fall 2011 (6 of 18 sections), by fall 2013 nearly 80% (or 15 of 19) had done so. In 2011 all collaborations were minimal (level 2), but by 2013 42% were intermediate (level 3) or substantial (level 4).

Furthermore, as Figure 1 shows, from fall 2011 to fall 2013 student papers exhibited improvement in all three IL habits of mind: attribution/citation, evaluation of sources, and communication of evidence. The difference in scores between fall 2011--the year before we implemented IL into the FYS program and introduced faculty-librarian collaboration--and fall 2013 is statistically significant in all three IL areas (attribution p-value 0.00741; evaluation 0.00007; communication 0.00484). Additionally, the increase between 2012 and 2013 in students' "evaluation" scores is statistically significant (p-value 0.00337).

Figure 1. Student Information Literacy Scores, Fall 2011-Fall 2013
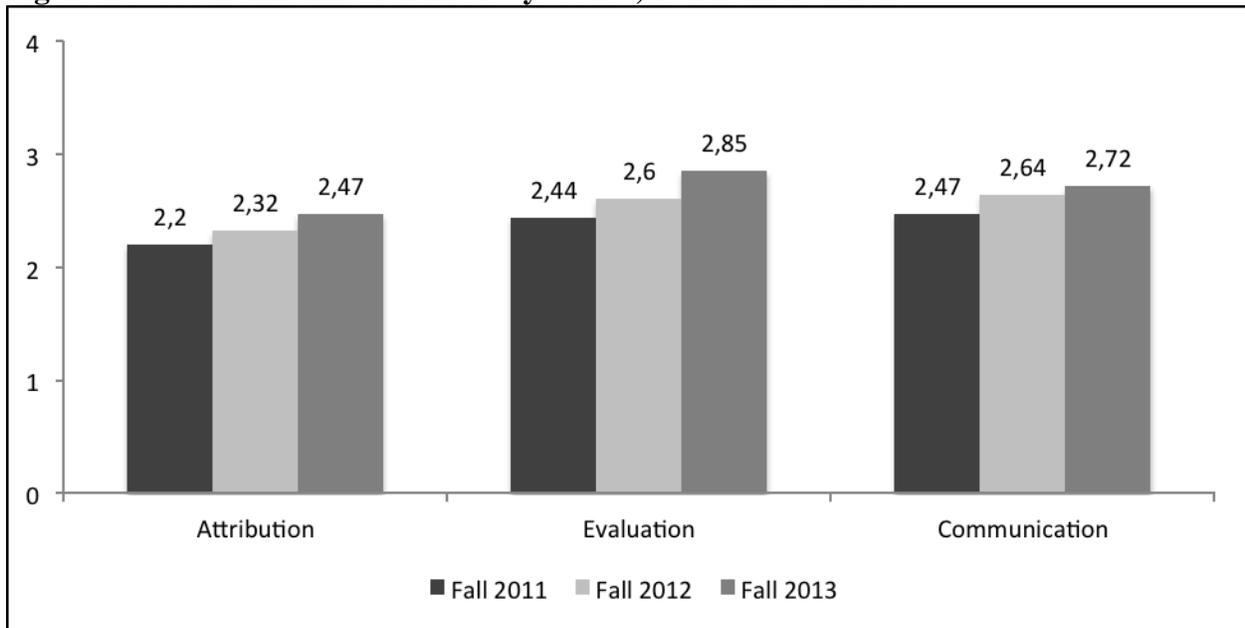
Note: IL scores range from 1 (initial) to 4 (highly developed)
Figure 1. Student Information Literacy Scores, Fall 2011-Fall 2013

To gauge what effects, if any, librarian engagement in first-year classes had on student IL performance, in fall 2013 we added a comparative dimension to the study. As stated, collaboration levels (again, 1=none and 4=substantial) were self-reported by librarians for each FYS and then associated with rubric evaluation data. Of the 15 seminars from which papers were received[7] (n=151), two seminars were at Level 1 collaboration (n=24), five were Level 2 (n=34), six were Level 3 (n=70), and two were Level 4 (n=23). Figure 2 highlights the improvement in IL scores when moving from minimal (level 2) to higher (3 and 4) levels of collaboration. Notably, the difference in all three IL areas (attribution, evaluation, and communication) is statistically significant between intermediate or substantial librarian collaboration, on the one hand, and minimal collaboration, on the other (attribution p-value 0.0115; evaluation 0.0000229; communication 0.01859).

Perhaps counter-intuitively, there are no statistically significant differences between intermediate (level 3) and substantial (level 4) collaborations. This is a trend that was also observed in a larger five college study (Lowe, Booth, Stone, & Tagge, 2015). This suggests the possibility that benefits to student learning occur at an intermediate level of faculty-librarian collaboration. Consequently, it may not be necessary for faculty to make library instruction the centerpiece of their courses in order to have a positive impact on the quality of student research and output.

---

[7] In 2013, 19 first-year seminars were offered.

Figure 2. Student IL Scores by Faculty-Librarian Collaboration Level, Fall 2013
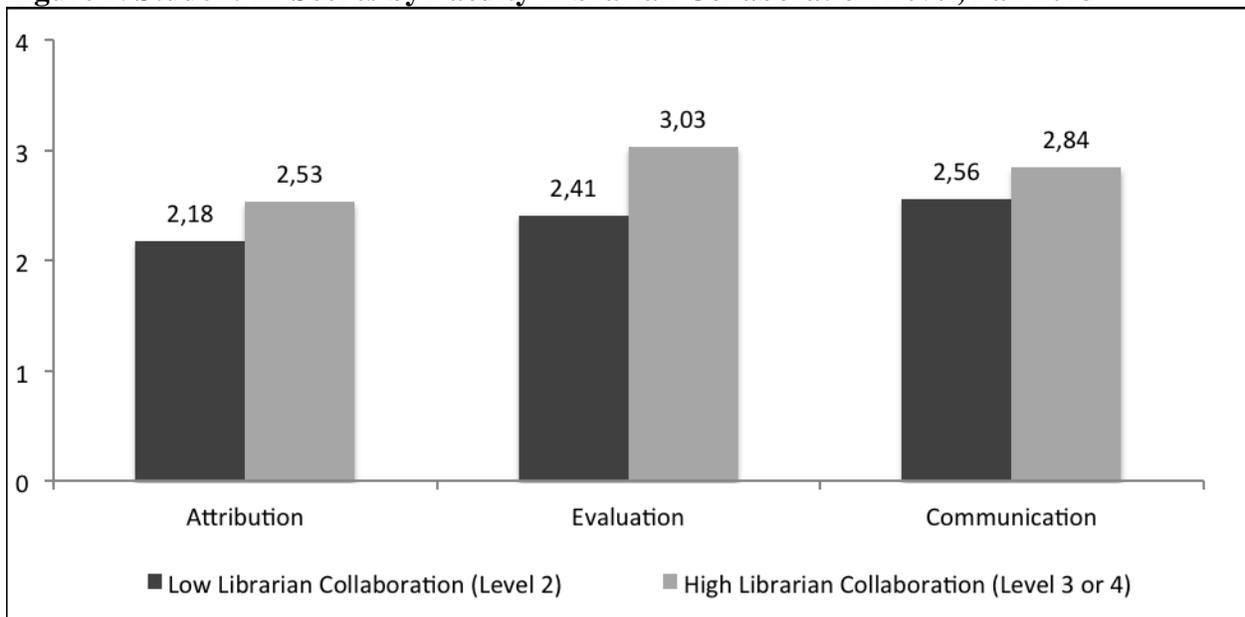
Note: IL scores range from 1 (initial) to 4 (highly developed)

It is also worth noting that our pragmatic approach to integrating IL instruction into first-year courses has gained momentum. Our initial foray into faculty-librarian collaboration at the course level has evolved into an increasingly programmatic approach. As an example, we point to the creation and adoption of a local definition of information literacy and the formal integration of IL into the college's first-year learning outcomes. This was made possible by documenting student information literacy levels in the first-year seminar and sharing these with faculty and other stakeholders, such as relevant school-wide committees, the Dean of Faculty, and the Board of Trustees.

Conclusion

Results from our three-year study demonstrate that faculty collaboration with librarians has a significant impact on students' demonstrated information literacy skills. Through collaboration both in class and behind the scenes, librarians and faculty jointly provide strategic, systematic instruction to produce information-literate graduates and—in the longer run—engaged, socially responsible citizens. Our results further reveal a faculty-librarian collaboration "sweet spot" at the intermediate level. Not surprisingly, the traditional "one-shot," where there is no syllabus and/or assignment collaboration and the librarian pops into class once to briefly explain information literacy concepts, does not effectively build students' IL skills (Walker & Pearce, 2014). At the same time, IL skills were not significantly better when librarians were in the classroom many times. Instead, faculty-librarian collaboration on assignment and syllabus development, followed by one or two strategically placed library class sessions, produced the greatest gains. This is good news for faculty concerned about having to completely retool their courses in order to foster students' IL competencies. This is also good news for libraries that might not be staffed at levels to allow librarians to collaborate extensively with every class.

Our experience demonstrates that when faculty partner with librarians to teach IL the result can be twofold—both lowered faculty workload and better student research (Simmel, 2007). For instance, faculty are now actively drawing upon the library's IL rubric and student learning outcomes to help them assess students' written work in a time- and energy-conscious manner. Faculty also turn to librarians as they seek to adapt best practices in the teaching of

undergraduate research. Librarians are especially good at helping faculty think through the scaffolding of assignments so as to give students sufficient practice applying the IL skills that they will then use to carry out a final research project. As this study has shown, the kinds of assignments generated by faculty in partnership with librarians palpably enhance the quality of student work, making the "job of grading… less onerous and even invigorating" (Baglione, 2008, p. 596).

The approach to collaboration that we advocate here is geared, first and foremost, to helping faculty achieve the kinds of teaching and learning that are important to them and to their students in the context of faculty concerns about IL costs and tradeoffs. The exact form of each collaboration varies, depending on where students are at the beginning of the semester and where the faculty (and/or program) expects them to be by the end of it. In addition to exploring how the library could promote specific learning goals, we took into account other key factors, including the faculty member's pedagogical approach, teaching style, and level of comfort (or familiarity) with IL. Framed in this way, it becomes clear that the articulation of shared learning goals linking the library and faculty--while a strong foundation for collaboration--might not be sufficient on its own to ensure success. As our experience demonstrates, the probability of faculty buy-in and student success increases when flexibility and pragmatism are built into the process. Flexibility and pragmatism are contextual, reflecting a particular institution's culture, the needs and preferences of particular faculty, and the objectives of the particular course.

References

American Association of Colleges & Universities. (2007). *VALUE rubric development project.* Retrieved from https://www.aacu.org/value/rubrics.

Association of College & Research Libraries. (1989). *Presidential Committee on Information Literacy: Final Report.* Retrieved from http://www.ala.org/acrl/publications/whitepapers/presidential.

Association of College & Research Libraries. (2000). *Information Literacy Competency Standards for Higher Education.* Retrieved from http://www.ala.org/acrl/Standards/informationliteracycompetency

Atwong, C. T., & Heichman Taylor, L. J. (2008). Integrating information literacy into business education: A successful case of faculty-librarian collaboration. *Journal of Business & Finance Librarianship*, *13*(4), 433-448.

Baglione, L. (2008). Doing good and doing well: Teaching research-paper writing by unpacking the paper. *PS: Political Science and Politics, 41*(3), 595–602.

Bob, C. (2001). A Question and an argument: Enhancing student writing through guided research assignments. *PS: Political Science and Politics*, *34*(3), 653–655.

Cannon, A. (1994). Faculty survey on library research instruction. *RQ*, 524-541.

Caravello, P. S., Kain, E. L., Kuchi, T., Macicak, S., & Weiss, G. L. (2008). Information literacy the partnership of sociology faculty and social science librarians. *Teaching Sociology*, *36*(1), 8-16.

Cassidy, E. D., & Hendrickson, K. E. (2013). Faculty–Librarian micro-level collaboration in an

online graduate history course. *The Journal of Academic Librarianship*, *39*(6), 458-463.

Cavdar, G., & Doe, S. (2012). Learning through writing: Teaching critical thinking skills in writing assignments. *PS: Political Science and Politics*, 45(2), 298-306.

Centellas, M. (2011). Preaching what we practice: Bringing scope and methods 'back in'. *PS: Political Science and Politics, 44*(4), 817-822.

Claremont Colleges Library. (2013). *Information Literacy at the Claremont Colleges: Critical Habits of Mind and First-Year/Capstone/Graduate Learning Outcomes*. Retrieved from http://libraries.claremont.edu/informationliteracy/documents/CCL_Information_Literacy_Habits%20of%20Mind.pdf

Dodgen, L., Naper, S., Palmer, O., & Rapp, A. (2003). Not so SILI: Sociology information literacy infusion as the focus of faculty and librarian collaboration. *Community & Junior College Libraries*, *11*(4), 27-33.

Dold, C. J. (2014). Critical information literacy: A model for transdisciplinary research in behavioral sciences. *The Journal of Academic Librarianship*, *40*(2), 179-184.

Dolowitz, D. P. (2007). How electronic information can be fitted into the academic process. *Journal of Political Science Education*, *3*(2), 177-190.

Fain, M. (2011). Assessing information literacy skills development in first year students: A multi-year study. *The Journal of Academic Librarianship*, *37*(2), 109-119.

Fitzgerald, J., & Baird, V. A. (2011). Taking a step back: Thinking by distinguishing appropriate types of evidence. *PS: Political Science and Politics, 44*(3), 619-624.

Garland, J. (2014). Locating traces of hidden visual culture in rare books and special collections: A case study in visual literacy. *Art Documentation: Journal of the Art Libraries Society of North America*, *33*(2), 313-326.

Gawalt, E. S., & Adams, B. (2011). A chemical information literacy program for first-year students. *Journal of Chemical Education*, *88*(4), 402-407.

Gendron, H., & Sclippa, E. (2014). Where visual and information literacies meet: Redesigning research skills teaching and assessment for large art history survey courses. *Art Documentation*, *33*(2), 327-344.

Gilbert, J. K., Knutson, K., & Gilbert, C.P. (2012). Adding an integrated library component to an undergraduate research methods course. *PS: Political Science & Politics, 45*(1), 112-118.

Gould Library Reference and Instruction Department. (2012). *Information Literacy in Student Writing Rubric and Codebook.* Retrieved from http://go.carleton.edu/6a)

Gross, M., & Latham, D. (2012). What's skill got to do with it?: Information literacy skills and self-views of ability among first-year college students. *Journal of the American Society for Information Science and Technology*, *63*(3), 574-583.

Gullikson, S. (2006). Faculty perceptions of ACRL's information literacy competency standards for higher education. *The Journal of Academic Librarianship*, *32*(6), 583-592.

Hearn, M. R. (2005). Embedding a librarian in the classroom: an intensive information literacy model. *Reference Services Review*, *33*(2), 219-227.

Hein, N. P., & Miller, B. A. (2004). ¿Quién Soy? Finding my place in history: Personalizing learning through faculty/librarian collaboration. *Journal of Hispanic Higher Education*,

3(4), 307-321.

Hicks, A., & Howkins, A. (2015). Tipping the iceberg: A collaborative approach to

redesigning the undergraduate research assignment in an antarctic history capstone

seminar. *The History Teacher*, *48*(2), 339.

Housewright, R., Schonfeld, R. S., & Wulfson, K. 2013. *Ithaka S+R US Faculty Survey 2012.*

Retrieved from

http://www.sr.ithaka.org/sites/default/files/reports/Ithaka_SR_US_Faculty_Survey_201

2

_FINAL.pdf

Karshmer, E., & Bryan, J. E. (2011). Building a first-year information literacy experience:

integrating best practices in education and ACRL IL competency standards for higher

education. *The Journal of Academic Librarianship*, *37*(3), 255-266.

Kenney, B. F. (2008). Revitalizing the one-shot instruction session using problem-based learning.

Reference & User Services Quarterly, *47*(4), 386-391.

Kim, S. U., & Shumaker, D. (2015). Student, librarian, and instructor perceptions of

information literacy instruction and skills in a first year experience program: A case

study. *The Journal of Academic Librarianship*, *41*(4), 449-456.

Kuglitsch, R. Z. (2015). Teaching for transfer: reconciling the framework with disciplinary

information literacy. *portal: Libraries and the Academy*, *15*(3), 457-470.

Lampert, L. (2005). "Getting psyched" about information literacy: A successful faculty-librarian

    collaboration for educational psychology and counseling. *The Reference Librarian*, *43*(89-

    90), 5-23.

Lindstrom, J., & Shonrock, D. D. (2006). Faculty-librarian collaboration to achieve integration of

    information literacy. *Reference & User Services Quarterly*, *46*(1), 18-23.

Lowe, M. S., Booth, C., Stone, S., & Tagge, N. (2015). Impacting information literacy learning in

    first-year seminars: A rubric-based evaluation. *portal: Libraries and the Academy*, *15*(3),

    489-512.

Mackey, T. P., & Jacobson, T. E. (2005). Information literacy: A collaborative endeavor. *College

    Teaching*, *53*(4), 140-144.

Manus, S. J. B. (2009). Librarian in the classroom: An embedded approach to music information

    literacy for first-year undergraduates. *Notes*, *66*(2), 249-261.

Marfleet, G. B., & Dille, B. J. 2005. Information literacy and the undergraduate research

    methods curriculum. *Journal of Political Science Education*, *1*(2), 175-190.

Maybee, C., Carlson, J., Slebodnik, M., & Chapman, B. (2015). "It's in the syllabus":

    identifying information literacy and data information literacy opportunities using a

    grounded theory approach. *The Journal of Academic Librarianship*, *41*(4), 369-376.

McGuinness, C. (2006). What faculty think–exploring the barriers to information literacy

    development in undergraduate education. *The Journal of Academic Librarianship*, *32*(6),

    573-582.

Moore, C., Black, J., Glackin, B., Ruppel, M., & Watson, E. (2015). Integrating information

literacy, the POGIL method, and iPads into a foundational studies program. *The Journal of Academic Librarianship*, *41*(2), 155-169.

Pierce, D. L. (2009). Influencing the now and future faculty: retooling information literacy. *Notes*, *66*(2), 233-248.

Procter, L., Wartho, R., & Anderson, M. (2005). Embedding information literacy in the sociology program at the University of Otago. *Australian Academic & Research Libraries*. *36*(4), 153-168.

Reed, K. L. (2015). Square peg in a round hole? The framework for information literacy in the community college environment. *Journal of Library Administration*, *55*(3), 235-248.

Rhodes, T. L. & Finley, A. (2013). Using the VALUE rubrics for improvement of learning and authentic assessment. Washington, DC: Association of American Colleges and Universities.

Rinto, E. E., & Cogbill-Seiders, E. I. (2015). Library instruction and themed composition courses: An investigation of factors that impact student learning. *The Journal of Academic Librarianship*, *41*(1), 14-20.

Robinson, A. M., & Schgel, K. (2005). Student use of the Internet for research projects: A problem? our problem? what can we do about it? *PS: Political Science and Politics*. *38*(2), 311-315. https://www.eou.edu/ctl/files/2012/10/E-VALRUBR2.pdf

Samson, S., & Granath, K. (2004). Reading, writing, and research: Added value to university first-year experience programs. *Reference Services Review*, *32*(2), 149-156.

Schonfeld, R. C., Wulfson, K., & Housewright, R. (2012). *Ithaka S+R US Faculty Survey 2012. ICPSR34651-v1*. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. Retrieved from http://doi.org/10.3886/ICPSR34651.

Simmel, L. (2007). Building your value story and business case. *College & Research Libraries News, 68*(2), 88-91.

Snavely, L., & Cooper, N. (1997). Competing agendas in higher education: Finding a place for information literacy. *Reference & User Services Quarterly, 37*(1), 53-62.

Stevens, C. R., & Campbell, P. J. (2008). Collaborating with librarians to develop lower division political science students' information literacy competencies. *Journal of Political Science Education*, *4*(2), 225-252.

Thornton, S. (2010). From 'scuba diving' to 'jet skiing'? Information behavior, political science, and the Google generation. *Journal of Political Science Education. 6*(4), 353-368.

Upcraft, L. M. & Schuh, J. H. (March-April 2002). Assessment vs. research: Why we should care about the difference. *About Campus*, 16-20.

Walker, K. W., & Pearce, M. (2014). Student engagement in one-shot library instruction. *The Journal of Academic Librarianship*, *40*(3), 281-290.

Weiner, S. A. (2014). Who teaches information literacy competencies? Report of a study of faculty. *College Teaching*, *62*(1), 5-12.

Wilkes, J., Godwin, J., & Gurney, L. J. (2015). Developing information literacy and academic writing skills through the collaborative design of an assessment task for first year engineering students. *Australian Academic & Research Libraries*, *46*(3), 164-175.

Williams, M. H., Goodson, K. A., & Howard, W. G. (2006). Weighing the research paper option:

the difference that information literacy skills can make. *PS: Political Science and Politics*,

39(3), 513-519.

Williams, M. H., & Evans, J.J. (2008). Factors in information literacy education. *Journal of

Political Science Education*, *4*(1), 116-130.

Information Literacy in Student Work Rubric – Claremont Colleges Library (Version 2013/14)

Learning Outcome	Level of Achievement			
	Highly Developed 4	**Developed** 3	**Emerging** 2	**Initial** 1
Attribution	*Shows a sophisticated level of understanding for when and how to give attribution.* • Documents sources consistently and completely • Uses in-text citation and notes correctly and consistently • Cites non-textual sources consistently • Names and labels figures and/or graphs clearly and completely.	*Attribution indicates understanding of the rationale for and various mechanisms of citation.* • Documents sources throughout with occasional errors or inconsistencies. • Uses in-text citation and notes with occasional errors or inconsistencies • Cites non-textual sources with relative consistency • Usually names and labels figures and/or graphs clearly and completely.	*Missteps in attribution interfere with the argument or point to fundamental misunderstandings.* • Frequently documents sources incorrectly or leaves out some citations. • Frequent errors and inconsistencies with in-text citation and notes • Does not consistently cite non-textual sources • Names and labels figures and/or graphs inconsistently.	*Use of evidence and citation is poor, making it difficult to evaluate the argument or sources.* • Displays fundamental and consistent errors in source documentation • Does not include or contains significant inconsistencies with in-text citation and notes • Does not name, title, or cite non-textual sources • Does not name or label figures and/or graphs.
Evaluation of Sources	*Source materials employed demonstrate expertise and sophisticated independent thought.* • Demonstrates sophisticated awareness of universe of literature and community of scholarship • Uses a variety of appropriate and authoritative sources • Always distinguishes between types of sources (e.g., scholarly v. popular, fact v. opinion) • Demonstrates a thorough critical exploration and knowledge of evidence, theories, and sources selected	*Source materials are adequate and appropriate but lack variety or depth.* • Explores supporting sources and community of scholarship but might overlook important avenues • Sources are used support claim(s) but may not be the most authoritative source to make claim •Usually distinguishes between types of sources (e.g., scholarly v. popular, fact v. opinion) •Demonstrates a preliminary critical exploration and knowledge of evidence, theories, and sources selected	*Source materials used are inadequate.* • Exhibits weak awareness of universe of literature or other sources that could strengthen claim(s) or argument(s) • Relies on too few or largely inappropriate sources • Does not consistently distinguish between types of sources (e.g., primary v. secondary, scholarly v. popular, fact v. opinion) • Clearly selected sources out of convenience •Demonstrates little critical exploration and knowledge of theories and sources selected	*Source materials are absent or do not contribute to claim(s) or argument(s).* • No evidence of awareness of universe of literature or other sources that could strengthen claim(s) or argument(s) • When included, sources are too few or badly inappropriate • No distinction between types of sources (e.g., scholarly v. popular, fact v. opinion) • Does not explore outside sources or present evidence when called for •No evidence of critical exploration and knowledge of theories and sources selected
Communication of Evidence	*Evidence is integrated and synthesized expertly to support claims.* • Consistently presents evidence to support claim(s) and argument(s) • Synthesizes and contextualizes evidence appropriately for audience • Uses evidence instrumentally towards rhetorical goals • Distinction between own ideas and ideas of others is consistently clear • Identifies gaps in the literature and contributes creatively and/or significantly to a scholarly conversation • Does not over- or under-rely on the ideas of others or the work of a single author	*Proficient synthesis and integration of evidence.* • Generally employs evidence to support claim(s) and argument(s) • May present some evidence without context • Frequently demonstrates using evidence instrumentally toward rhetorical goals • Distinction between own ideas and ideas of others is usually clear • Begins to identify gaps in the literature or contribute to a scholarly conversation • May over- or under-rely on the ideas of others or the work of a single author	*Weak attempts at synthesis or integration.* • Sporadically uses evidence to support claim(s) or argument(s) • Frequently fails to put sources into context (e.g. "The World Bank says...") • Usually does not demonstrate using evidence instrumentally toward rhetorical goals • Consistently blurs distinction between own ideas and ideas of others • Does not identify gaps in the literature or contribute to a scholarly conversation	*No evidence of attempt at synthesis or integration.* • Claim(s) or argument(s) lack necessary evidence • Fails to contextualize quotes and evidence • No demonstration of using evidence instrumentally toward rhetorical goals • No distinction between own ideas and ideas of others

Information Literacy in Student Work Rubric Scoring Sheet - [College Name Redacted]

Identification

ID Code _____   Reader Name _____   Term/Year _____   Faculty _____

Could not evaluate information literacy (IL) in this work? Check the box and you're done. ☐

Assignment

A.   Does the assignment ask students to use evidence outside of assigned course content? *(check one)*

☐ Required   ☐ Allowed   ☐ Discouraged   ☐ No explicit mention   ☐ Assignment not available   ☐ N/A

B.   This work is a: _____ (e.g., research paper, thesis, report, summary, argument, analysis, reflection, media project, other)

Quality of attribution, evaluation, and communication of IL (see rubric for details):

	Highly Developed (4)	Developed (3)	Emerging (2)	Initial (1)	Comments	Totals
Attribution						
Evaluation of Sources						
Communication of Evidence						

OPTIONAL   Sum: ☐

This work is a particularly representative example of the following *(check any that apply)*:

☐ Very robust bibliography   ☐ Egregious errors in bibliography, in-text citations, notes

☐ Clear and consistent citations   ☐ Little or no attribution of non-textual elements

☐ Chose appropriate sources to support claims ☐ Inappropriate source(s) used to support claim

☐ Sources are well-integrated and synthesized ☐ Sources not integrated or synthesized (e.g., "patch writing" or excessive block quoting)

☐ Shows awareness of depth of scholarship in area ☐ Sources lack breadth or depth

Other _____   ☐ Over/Undercited claims

Elaboration (optional):

Information Literacy in Student Work Rubric/Scoring Sheet Codebook - [College Name Redacted]

Identification
Fill out any available details regarding student work.

Can we evaluate information literacy in this work?
Even if no sources are cited or the assignment does not call for outside sources, student work may exhibit information literacy if the student is placing their ideas in a broader context using ideas or information from other sources.

Assignment
  A. Expectations about use of evidence outside of assigned course reading or other materials provided by professor (use N/A in the case of thesis or other work without defined assignment parameters).
  B. Assignment type allows us to determine how to evaluate works that fall outside the "standard" research paper (e.g. a report, thesis, summary, argument, analysis, reflection, media project, or other type of work)

Quality of attribution, evaluation, and communication of Information Literacy
For each category, check the appropriate box. (Highly Developed, Developed, Emerging, Initial)

- **Attribution** refers to how well and how consistently the student acknowledges sources of evidence, including non-traditional formats such as lectures, emails, DVD commentaries, and images/figures as well as non-textual, embodied, reflective, and experiential materials.
- **Evaluation** refers to the appropriateness or quality of source materials the student chooses to use to support their rhetorical goals (claims or arguments). This includes materials and sources in their bibliography (if available) as well as those used throughout the work. Do the sources, examples, and evidence selected match the purpose of the type of work and argument the student is creating? Is the student aware of the differences between primary and secondary sources, popular and scholarly sources, or fact and opinion? Have they selected the variety and quality of sources appropriate for their argument and work type?
- **Communication** refers to the use and integration of sources as well as the quality of composition, e.g., whether the student has integrated the evidence they're using and has done so in a way instrumental to their claim(s) and argument(s). Does the student paraphrase, summarize, synthesize, use quotes appropriately? Does the student frame quotations using authoritative sources? How are they using sources to ground their claims? This category also addresses how a student integrates their own ideas with those of others.

OPTIONAL - This work is a particularly rich example of the following (check any that apply):
Check an item when the noted characteristics are present and should be flagged as interesting or rich examples for future analysis or conversation. If you see other rich examples, note them as "Other."