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A Collaborative, Trilateral Approach to Bridging the Information Literacy Gap in Student Writing

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As localized assessments confirm national findings that undergraduates struggle to integrate resources into research-based compositions effectively, data at one comprehensive public university indicate library sessions improve students' ability to locate and evaluate information, but students continue to struggle with the "use" component of information literacy. This article presents a trilateral case study among librarians, faculty, and writing center administrators, emphasizing the intersection of programmatic partnerships, assessment, and pedagogical best practices. Our research shows a trilateral approach to information literacy increases efficacy and a sense of shared responsibility in support of student research where traditional bilateral approaches fall short.

University faculty and staff who work with college students in their transition from high school student to academic reader, writer, and researcher would be quick to acknowledge that a gap exists between where instructors would like their students to perform and where those students actually are. Many instructors can relate to a frustration that there is not enough time in a semester to cover all the aspects of information literacy that students should know. Similarly, many academic and instruction librarians know the challenge of having only one class meeting in which to impress upon students all they need to know, from searching databases, avoiding plagiarism, and evaluating sources to integrating, citing, and documenting sources properly. Localized assessments from writing programs and libraries confirm national findings of The Citation Project[1] and Project Information Literacy[2] by indicating that college students struggle to effectively integrate information resources into research-based compositions. For example, assessment data from both the first-year writing program and the library at Eastern Kentucky University (EKU) indicate that library sessions improve students' ability to locate and evaluate information, but students still struggle to synthesize and incorporate the information they find into their writing.

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Past scholarship reflects collaborative attempts among writing instructors, instructional librarians, and writing center administrators to help students transition between locating and evaluating to effectively integrating and synthesizing information. However, these conversations tend to be bilateral, including only two of the three entities. In response, this article emphasizes the intersection of programmatic partnerships, assessment, and pedagogical best practices through a case study of a trilateral approach joining EKU composition faculty, librarians, and writing center administrators in professional relationships and programs that supplement and support the individual goals of each campus entity while enhancing the shared goal of increasing students' facility with information resources. In doing so, this case study and its authors illustrate the shared responsibility for student learning in information literacy reflected in the Association of College and Research Libraries in ACRL's *Framework for Information Literacy for Higher Education* (hereafter *ACRL Framework*), which calls for librarians, teaching faculty, and administrators to collaborate more extensively:

> to redesign instruction sessions, assignments, courses, and even curricula; to connect information literacy with student success initiatives; to collaborate on pedagogical research and involve students themselves in that research; and to create wider conversations about student learning, the scholarship of teaching and learning, and the assessment of learning on local campuses and beyond.[3]

Further, our research shows that a trilateral approach to information literacy increases efficacy and a sense of shared responsibility for librarians, writing center staff, and course instructors in support of student research in ways traditional bilateral approaches do not.

Bilateral Collaboration: A Brief Review of the Literature

Collaborations to support information literacy are not new but have been limited in scope. Much has been written on the preference of collaborative efforts over one-shot library instruction as a way of enhancing students' research writing skills.[4] In his 2006 article "Locating the Center: Writing Centers, Libraries and Information Literacy," James K. Elmborg highlighted the problematic bifurcation of research and writing instruction and established the need for increased collaboration among faculty, librarians, and writing centers.[5] Since his article, scholarship on teaching information literacy has presented models of collaboration that attempt to bridge the gap. Laura Brady, Natalie Singh-Corcoran, Jo Ann Dadisman, and Kelly Diamond note that librarians have taken the lead on reporting these initiatives, with little to be found in rhetoric and composition journals.[6]

In her 2012 review of research, Elise Ferer identified four major trends in the collaborations between writing centers and libraries: outreach and promotion of services, increased training on information literacy for writing center consultants, sharing of space, and cotaught classes and workshops.[7] Findings indicate these approaches result in raising awareness of services and increased usage,[8] decreasing writing anxiety by providing access to support in one shared location,[9] and highlighting the recursive nature of the writing and research processes and the similarities in writing center and library services.[10] Initiatives that focus on personnel either situate a librarian within the writing center or train writing center consultants on information literacy practices. In these models, librarians are trained in writing center pedagogy[11] or work to train writing center consultants on library resources, databases, search techniques, and/or source evaluation.[12] In one unique model, an existing relationship between the library and writing center led the library to adopt a model of peer-to-peer support for reference services.[13]

In addition to highlighting writing center and library partnerships, information literacy research has presented numerous approaches to librarian and faculty partnerships. Models for these collaborations most often focus on embedding a librarian in the classroom;[14] collaborative teaching and/or curriculum development;[15] or learning community models, wherein librarians provide training and/or resources to facilitate faculty-led information literacy instruction in the composition classroom,[16] with most models embracing a combination of two or more such approaches. As Mardi Mahaffy points out, many of these partnerships develop at the individual level, creating problems with sustainability if a partner leaves or assumes other responsibilities.[17] Similarly, Lea Currie and Michelle Eodice stress the importance of avoiding "people-based initiative(s)" because of the potential risks to sustainability.[18] The amount of human and financial resources necessary for extending these models at a programmatic level prevents these models from being easily adopted beyond accelerated or specialty courses. In one example, Caroline Barratt, Jill Parrott, and Erin Presley describe a relationship in which a special one-hour course was offered at a large public research university to develop students' facility with information literacy and multimodal composition, but that course did not address the vast programmatic issues occurring with hundreds—or in some cases thousands—of students moving through library instruction every year.[19]

Few writing center scholars have highlighted collaborations that extend beyond the course-specific model of course-embedded writing fellows or promote a more intensive relationship than a referral system. Despite the recognized shared importance of librarians, faculty, and writing centers in increasing students' knowledge of and skill with finding and using information, models for collaboration have rarely incorporated a trilateral approach that encourages a truly recursive process for writing.[20] Russell Carpenter and Leslie Valley describe a model of integrative collaboration that intentionally incorporates the writing center into the classroom at strategic points to better facilitate the writing process.[21] This approach, however, still neglects the importance of including librarians in a collaboration that most effectively supports information literacy skills. Most significantly, Laura Brady, Nathalie Singh-Corcoran, Jo Ann Dadisman, and Kelly Diamond present a model wherein library instruction and information literacy workshops and assignments are strategically codeveloped by librarians, faculty, and writing center staff for an advanced first-year composition course.[22] While effective, this model still faces challenges of scalability due to the heavy time commitment and reliance on individuals. Beyond the codeveloped curriculum, participation in planning meetings, and a library-writing center cofacilitated writing and research clinic, the writing center's role remains primarily that of a one-on-one tutoring center, and student interactions are determined by each student's own initiative to visit the center.

Institutional Context

EKU and the First-Year Writing Program

Eastern Kentucky University (EKU) is a mid-sized regional comprehensive university centrally located in Richmond, Kentucky, serving approximately 16,000 students. EKU's identified service region extends into Eastern and South Central Kentucky, an area comprising mostly rural counties in the Appalachian mountains of Kentucky. The First-Year Writing program houses a program coordinator, several full-time faculty members teaching and advising, graduate teaching assistants, and dozens of adjunct faculty addressing the intellectual development of thousands of students each year. A 2013 revision of the First-Year Writing program's course titles, course descriptions, and Student Learning Objectives, coupled with a new standardized grading rubric and new textbooks, have revitalized a once-stagnant program. These revisions have prepared the program to develop meaningful relationships with entities across campus

to maintain momentum in developing the most up-to-date pedagogical strategies and professional development for instructors. Further, with a focus on meeting the needs of the students in our service region, we find vast disparities in the preparedness of our students in relation to communication at the college level and have sought ways to enhance teaching and learning from varied perspectives—impacting the student experience at every possible juncture.

Libraries Information Literacy Instruction Program

Like most academic libraries, EKU Libraries strive to develop instructional services that align professionally with the ACRL's definition of information literacy as defined by Information Literacy Competency Standards for Higher Education (hereafter *ACRL Standards*): the ability to recognize when information is needed and locate, evaluate, and use the needed information effectively and ethically.[23] *ACRL Framework,* adopted by the ACRL Board on January 11, 2016, further "envisions information literacy as extending the arc of learning throughout students' academic careers and as converging with other academic and social learning goals," and expands the definition of information literacy to include "the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning."[24] Institutionally, an internally developed *Library Instruction Program Charter* (see appendix A) and *Information Literacy Core Competencies* (see appendix B) provide additional guidance for library instructional services and further align such services with the professional guidelines established by the *ACRL Framework*. The *Charter* stipulates that library instruction sessions focus on facilitating the development of transferable information literacy skills through the use of active learning rather than on "teaching the tool," while the *Core Competencies* acknowledge that information literacy is the shared responsibility of librarians and faculty and that students develop and build information literacy competency in context and through experience.

In response to both the ACRL *Standards* and *Framework* and its own internal standards, EKU Libraries host hundreds of instruction sessions each semester dedicated to assisting students with locating and evaluating information through the use of active, hands-on, and relevant instructional activities designed in collaboration with classroom faculty. In part, this large number of sessions is due to a long-standing agreement with the First-Year Writing program, which requires each English 102 course (a research-based writing course comprising the second semester of the first-year writing sequence) to incorporate at least one library instruction session. Since English 102 is a required course for all students, regardless of major, nearly every student at EKU is guaranteed at least one instruction interaction with the library.

EKU's Writing Center: The Noel Studio for Academic Creativity

In addition to a strong and dedicated library instruction program, EKU Libraries is also home to the Noel Studio for Academic Creativity. The result of a collaboration that began in 2003 between the Dean of Libraries and Director of the EKU Writing Center, the Noel Studio for Academic Creativity—a multiliteracy center founded on traditional writing center pedagogy—was created by merging writing center services and extended research services, adding oral communication services, and strategically placing these new services in 10,000 square feet of newly renovated classroom and common student space centrally located in EKU's main campus library.[25] Established in September 2010, the Noel Studio seeks to build upon its traditional writing center roots with a mission to "to create innovative support for communication, research, and teaching and learning initiatives that enhance deep learning."[26] To enact this ambitious

mission, the Noel Studio employs a diverse staff of graduate and undergraduate consultants from across the disciplines led by a full-time administrative staff that includes coordinators in Writing (also an instructor with First-Year Writing) and Research (also a member of the Libraries Reference & Instruction team).[27] The Noel Studio's primary service is the peer-to-peer consultation, which is similar to peer tutoring and focuses on providing objective, constructive feedback meant to support students in improving their communication and writing practices. Like many writing centers, however, the Noel Studio also offers workshops intended to support students in the research and writing processes. Borrowing from the libraries' instruction philosophy of meeting students at the point of need through course-specific, assignment-driven instruction, in spring 2012, then–Noel Studio Research and Writing coordinators Trenia Napier and Leslie Valley created a series of requestable workshops (see appendix C), which can be tailored to individual course needs

Moving from Bilateral to Trilateral Collaboration

In the years leading up to the creation of the Noel Studio, interactions between the First-Year Writing program, the EKU Writing Center, and EKU Libraries remained mostly bilateral. Librarians tasked with delivering library instruction were becoming more engaged with classroom instructors as they developed instructional sessions, seeking faculty input into learning outcomes and active learning techniques. However, librarians did not engage the writing center in its pre-Noel Studio stage on campus, at least not in relation to instruction, instead leaving those conversations solely to the classroom instructors. Prior to the Noel Studio, the Libraries' only interactions with the writing center were relegated to inconsistent referrals and a half-hearted attempt to offer a few hours of reference services per week in the EKU Writing Center.

The Noel Studio's unique staffing model, along with its physical location in the main campus library, created increased opportunities for more integrative collaboration among the libraries, the Noel Studio, and classroom instructors. In addition to a director, the administrative staff includes both a writing and a research coordinator who are shared with the First-Year Writing program and the libraries, respectively; these coordinators draw from their individual backgrounds and disciplines, working collaboratively to select, train, and supervise consultants and to plan workshops in support of the mission and, in turn, the research, writing, and communication needs of its student patrons. Additionally, because the Writing Coordinator and Research Coordinator work together to plan and execute workshops; train, supervise, and support consultants; and oversee daily operations, the relationship between research and writing support services and classroom instruction is reinforced at both program and department levels. The collaborative relationship between the Noel Studio and the libraries, originally built on the aforementioned shared space and staff, was further solidified in 2016 when the Noel Studio became a unit of EKU Libraries, with its director reporting directly to the Dean of Libraries.

First-Year Writing: Initial (Bilateral) Assessment

At the end of the 2011–2012 academic year, new coordinators Jill Parrott and Erin Presley began overseeing the First-Year Writing program, and preparations began for the 2012–2013 year. As luck would have it, spring 2012 was also when the program was due to be assessed, and the assessment revealed significant gaps in our students' understanding of how to use and present information in meaningful ways for the expectations of college-level writing. While attempting to turn qualitative text into quantitative measurements is problematic and has obvious limitations, we felt strongly that our data were pointing to *real* ways that we could improve teaching and student

learning in the structure of the classroom. Further, we knew that whatever plans we moved forward with in First-Year Writing, we needed help: our goals could not be achieved within the walls of the classrooms alone.

The assessment process in EKU's First-Year Writing program works very much like the process at other schools. The program gathers a random sampling of required research essays from English 102, brings together experienced instructors to read the sampled essays, uses a standardized rubric to assign scores, and then aggregates the data. Our General Education-specific rubric assigns scores in seven different elements across a range of four possible scores (1=Beginning: Inadequate in Meeting Course Expectations; 2=Developing: Incomplete in Meeting Course Expectations; 3=Competent: Meets Course Expectations; 4=Accomplished: Exceeds Course Expectations). The coordinators were pleased that many students scored "3" or "4" in the rubric elements of Audience/Tone and in Control of Written Language, but we considered those elements to be less taxing on the students than others, for they had been receiving instruction on those issues for most of their academic careers. However, the scores on skills that we see as inherently foundational at the college level, the ones with which students can most measure their traverse into collegiate writing—Integration, Coherence, and Information Literacy—seemed low.

Parrott and Presley decided to focus efforts on Integration and Information Literacy, as the connection between those two areas is so strong. By addressing both simultaneously and, in fact, emphasizing the connection between the two, we could increase the likelihood of improving both. We quickly set about creating a plan to confront these issues both programmatically and in individual classrooms. To begin, we made some decisions about increasing the tools available to our instructors to help them envision ways to improve their interactions with students when dealing with these two elements. First, we piloted a holistic grading rubric (see appendix E) with 10 instructors. This rubric provides both textual and visual feedback to students to help them more clearly understand the expectations of college writing and track their own progress on these variables. In addition, it set the bar for passing the class at achieving these basic competencies (the equivalent of a 2 on the assessment rubric). We also began conducting faculty observations to greater familiarize ourselves with our part-time instructors and their pedagogical strategies, making suggestions where necessary. While we felt that these two strategies were important to bring our program up to date with successful first-year writing programs across the country, they did not address our two identified weaknesses in student writing with a clear and pointed sense of purpose. To achieve that goal, we sought out ways to provide support for students and faculty from several different angles, most importantly including the libraries and the Noel Studio. Identifying these weaknesses in student performance led us to question whether collaboration from three points of contact for students would make a bigger difference in student resource command than the traditional two-pronged approach.

Trilateral Collaboration: Scaffolding Classroom, Library, and Writing Center Efforts

Our trilateral approach challenges the traditional bilateral collaborations that have met limited success. Most librarians and composition instructors are familiar with the trope of setting aside a day in class to take students to the library, where a librarian meets them (probably for the first and only time), shows them some databases, answers a few question, and then is never seen again. While the basic onus for introducing students to the library's resources may be met in this situation, the students have not increased their facility with information, the instructor has not met any pedagogical goals for helping students use sources meaningfully, and the

librarian has not had any meaningful interaction with students or texts. A trilateral model increases efficacy by assisting students with identifying information needs *before* they go into library instruction, using Noel Studio (writing center) workshops to identify creative research topics and develop thesis statements for instructors' assignments, making the "one-shot" library instruction more impactful. Should the instructor choose to schedule multiple interactions with the Noel Studio and the Libraries, the ability to create even more effective interactions increases exponentially and reveals to students the recursive and synergistic nature inherent in the writing and research processes.

While Noel Studio workshops are requestable for any class, coordinators Napier and Valley have worked primarily with the First-Year Writing program to develop and promote the workshops, and these instructors have represented the Noel Studio's largest group of participants, much like English 102 represents the EKU Libraries instruction program's largest group of participants. The First-Year Writing program supports the complementary approach established by the Writing Coordinator, Research Coordinator, and the libraries instruction team by inviting the Writing Coordinator and Research Coordinator (also one of the libraries' liaisons to the English Department) to the First-Year Writing program's professional development sessions to discuss opportunities to collaborate with the Noel Studio and the libraries. Noel Studio coordinators and First-Year Writing program coordinators share examples of successful configurations to encourage process-oriented methods, focusing on approaches First-Year Writing instructors can take to integrate library instruction and Noel Studio workshops into classroom instruction.

For example, instructors might first schedule a Noel Studio workshop on developing and/or refining a topic in which Noel Studio staff (often with a librarian) facilitate a class discussion about selecting and refining a topic that then evolves into small-group, consultant-facilitated brainstorming sessions (that is to say, identifying information needs and constructing a question or problem statement). This session might be followed by library instruction on developing search strategies and using library and online resources to meet information needs (such as locating and accessing information), with a follow-up library instruction session on evaluating sources according to purpose, audience, and context (in other words, evaluating information). Depending on the course level and/or assignment requirements, next steps might include a Noel Studio synthesizing research or literature review workshop focused on organizing and incorporating the information found and evaluated in library instruction (that is, using information and communicating knowledge). Finally, instructors might choose to wrap up their interactions with the Noel Studio and the libraries by scheduling facilitated peer reviews in the Noel Studio with consultants trained to assist both with writing and research needs, and/or librarian-facilitated citation and documentation workshops in the Noel Studio (using information ethically). All of these interactions are being shepherded by the course instructor to meet the student learning outcomes for the course.

Through these scaffolded workshops, we have moved from the referral or hand-off system that considers library instruction as distinct from the work happening in the writing center or classroom. Working together, librarians, instructors, and Noel Studio staff can assess students' preparation for the different workshops and instruction sessions and revise the plan to better support students' needs. Further, we have found that students who have these positive experiences seem more open to returning to the library or Noel Studio for help on their own. These interactions with librarians, instructors, and Noel Studio staff also open up space for faculty and staff to communicate about at-risk students who may need further, more individualized help.

Research Results and Discussion: Trilateral Collaboration

As we begin to implement certain changes in our understanding of what these relationships should look like and encourage their acceptance and use through librarians and instructors, our efforts are reinforced by the feedback we are getting from our data. The 2013 First-Year Writing evaluation indicated improvements in the two key areas identified as needing attention in the 2012 evaluation: "Organization" (integration and coherence) and "Information Literacy." No essays received a score of "4" for cohesion in 2012, and only three essays received a "4" for information literacy in that same assessment period. During the 2013 evaluation cycle, nine essays earned a "4" for information literacy with one essay receiving the highest score for cohesion and eight essays earning that distinction for integration. The collaboration between classroom, EKU Libraries, and Noel Studio staff was integral in addressing both the "Information Literacy" and "Organization" elements.

To further assess the effectiveness of student work from sections of English 102 that took advantage of both library instruction and Noel Studio workshops (in other words, the trilateral collaboration group), Parrott, Presley, Napier, and Valley collaborated on two additional, IRB-approved assessments of the English 102 required research essays[28] (Exemption Status Protocol Number: 14-151). In fall 2013, we pulled 172 essays from the trilateral collaboration group and included 86 essays from the group that only participated in the required one library instruction session. We developed a rubric by which we scored these essays and randomized and anonymized the selection so that the scorers would not know from which group the essays came. The rubric identified four key questions to ask of each essay under consideration with four corresponding answers (see appendix D).

After a norming session, we scored the essays using the rubric. The results confirmed our shared hypothesis that the students in sections with trilateral instruction engage with sources in more meaningful ways. For example, approximately 30 percent of students in the trilateral collaboration group scored a "4" for "effectively appropriate for college and/or topic" in response to the rubric's first question (which was this: What types of sources is the student using?). From the group that did not participate in the trilateral collaboration, only 10 percent of those students earned a "4" in this category.

Encouraged by the qualitative (instructor and staff feedback about our developing professional relationships) and quantitative (university assessment and our own text review) data from the first data analysis of 2013, the authors took steps to formalize the trilateral approach we had started between 2013 and 2015. We also decided to

TABLE 1
Trilateral Collaboration, 2013
Research Papers from Classes That Participated

SCORE	1	2	3	4
Question A	23 13%	49 29%	48 28%	51 30%
Question B	22 13%	59 34%	75 44%	16 9%
Question C	12 7%	68 40%	75 44%	17 10%
Question D	22 13%	82 48%	53 31%	15 9%

TABLE 2
Trilateral Collaboration, 2013
Research Papers from Classes That Did Not Participate

SCORE	1	2	3	4
Question A	11 13%	29 34%	36 42%	9 10%
Question B	6 7%	49 57%	29 34%	2 2%
Question C	7 8%	40 47%	39 45%	0 0%
Question D	12 14%	54 63%	19 22%	1 1%

conduct a second assessment of the trilateral approach to validate our ongoing support. In fall 2015, we randomly selected 76 essays each from both the bilateral group and the trilateral group; as with the previous assessment, these essays were originally submitted for the program's General Education review. With the help of additional scorers, the researchers conducted a norming session and applied the research rubric to this second set of essays. The results show that students from the trilateral sections found and used sources more effectively than their peers in the traditional bilateral sections. For example, the scores indicate that approximately 62 percent (or 47 essays) earned a "3" or "4" in response to the first question about the appropriateness of the sources used from the trilateral group. While only 13 percent (10) of the essays from the trilateral group scored a "4" in response to the rubric's fourth question (which asked: Does the student's use of outside sources reflect an understanding of the greater conversation of his/her topic?), 49 percent scored a "3" in this important category; in the bilateral group, only four essays scored a "4" in this category and 38 percent earned a "3."

The numbers from the 2015 essays indicate a promising improvement over our initial round of scoring and suggest that the trilateral approach yields impactful results on student work. Perhaps most significantly, we saw many more essays in the 2015 trilateral group earning a competent score of "3" over a score of "2," which indicates developing skills. For example, in response to question D in 2013, 48 percent of essays from the trilateral group and 63 percent of essays from the bilateral group received

TABLE 3
Trilateral Collaboration, 2015
Research Papers from Classes That Participated

SCORE	1	2	3	4
Question A	4 5%	25 33%	26 34%	21 28%
Question B	5 6%	18 24%	31 41%	22 29%
Question C	3 4%	22 29%	37 49%	14 18%
Question D	7 9%	22 29%	37 49%	10 13%

TABLE 4 Trilateral Collaboration, 2015 Research Papers from Classes That Did Not Participate				
SCORE	**1**	**2**	**3**	**4**
Question A	9 12%	26 34%	28 37%	13 17%
Question B	8 11%	29 38%	31 40%	8 11%
Question C	4 5%	33 43%	33 43%	6 9%
Question D	8 11%	35 46%	29 38%	4 5%

a score of "2," with 31 percent (trilateral) and 22 percent (bilateral) earning a "3." In response to the same question from the 2015 assessment, 49 percent of the trilateral essays earned a "3," with 29 percent receiving a score of "2," indicating meaningful improvements in how effectively students engage with sources and the greater conversations surrounding their research topics.

Implications and Recommendations

Our trilateral collaboration illuminates ways we can improve our own interactions and ways others may recreate our trilateral approach and adjust for their own contexts. Librarians wishing to implement similar collaborations with writing program administrators, writing center administrators, and/or writing instructors may be well served to focus on similarities and shared goals by noting overlap in their respective standards, learning outcomes, and/or frames: Leslie Sult and Vicki Mills[29] and Donna Mazziotti and Teresa Grettano[30] outline similarities between the *ACRL Standards* and the *Writing Program Administrators Outcomes Statement for First-Year Composition*; D'Angelo and Maid examine the overlap between the *WPA Outcomes Statement for First Year Composition* and the *ACRL Framework;*[31] and Grettano and Witek map the *Framework for Success in Postsecondary Writing* to the *ACRL Framework.*[32] Of course, this model need not be limited to interactions with composition programs. Without doubt, a trilateral approach such as this one could work successfully in any program that values information literacy as an integral variable in the intellectual development of its students in general education or discipline-specific arenas.

The most important element in our relationship in the past and as we move forward should be self-evident: communication. With so many different factions, personalities, and missions at play, constant reassessment and communication is necessary to evaluate and adjust as needed. A great deal of that communication will be centered around reviewing both qualitative and quantitative data, looking for affirmation of what is going well and gaps that could use attention in improving the collaboration. In addition, as described above, communication among the staff of libraries, interested department or program directors, and writing centers, as well individual instructors, is absolutely essential to the success of information literacy initiatives. Next steps for the Noel Studio and EKU Libraries include investigating methods to improve communication so that their respective facilitators might work better in tandem with classroom instructors to scaffold and connect workshop and instruction activities where appropriate and necessary.

While librarians and program directors can suggest and advise, instructors ultimately shape their courses according to their own teaching styles. Our localized success can

be replicated through simple instruments, such as sharing data with instructors and offering professional development opportunities that present practical advice for the implementation of trilateral approaches in their individual program courses. The First-Year Writing program continues to make the Noel Studio and EKU Libraries a significant part of the professional development of instructors, as we have found that simply introducing our instructors to the idea of working with the Noel Studio and the libraries together has been successful motivation. An intended future approach is to request all English 102 classes to participate in Noel Studio workshops in addition to library instruction to implement a programwide, process-oriented, and collaborative approach to information literacy. In anticipation of the increased demand such an implementation would create, the Noel Studio assessed its services and workshop model and implemented several strategies to support scalability. In addition to developing and making accessible a collection of *Active Learning Toolkits* (available online at http://studio.eku.edu/active-learning-toolkits), which offer faculty the plan and resources for employing Noel Studio pedagogy in their own classrooms, the Writing and Research Coordinators now train graduate and undergraduate consultants to facilitate the Noel Studio's requestable workshops and have created a new graduate assistant position dedicated to supporting the workshop program (see appendix F).

In addition, the First-Year Writing program has formalized instructor observations, requiring all instructors in the program to be observed in their first semester and then once every two years that they remain with the program. Through formal observations, coordinators can find opportunities to suggest that instructors seek out interdisciplinary relationships with colleagues. For example, an observer might be present in a classroom on a day they discuss source integration; if the syllabus or instructor neglect to mention library or writing center services to the students, that is a learning opportunity where the observer (often the program coordinator) can suggest those interactions as a means of information literacy improvement. Further, the piloted grading rubric has been updated and revised according to user feedback and is now a required element of all First-Year Writing classes (see appendix G). After training and experience, most who use it find its holistic approach beneficial in helping to explain the relationship between important variables in successful college-level text creation; for example, the relationship between finding sources and documenting them is considered competent work, but integrating them smoothly and well is considered more skillful.

To replicate our localized success with a trilateral approach, standardized expectations are essential. These could come in the form of information literacy core competencies and/or a common rubric—such as those used by EKU Libraries (see appendix B) and First-Year Writing (see appendix E), respectively—but could also be student learning outcomes, standard assignments, or any information that communicates expectations for student facility with information literacy. The essential element, whatever such documents or expectations might look like, is to provide supporting training in how to use it. For example, just requiring instructors to have library instruction does not also equal that instructors would successfully place such training in their lesson plans; inviting a librarian to faculty meetings, professional development, and/or trainings to discuss best practices for supporting student research within the context of a specific discipline and/or class level can help remedy any misconceptions. Further, for our rubric, Parrott and Presley have provided grading norming sessions, professional development workshops, online examples of graded essays, and videos explaining rubric elements. Professional support and sharing research builds a foundation for individual instructors far more powerful than any programmatic mandate.

Finally, conversations should include opportunities for data to be used meaningfully for reflection and revision of professional relationships; we also find data to be

a persuasive means of communication with administration. While we certainly understand that our collaboration should increase the quality of student work, and we envision student writing as an individual and holistic process rather than a sum of its parts, administrators like numbers, and numbers can be useful. For example, when the First-Year Writing program completes its biannual assessment (as described above), it reveals trends in our respective programs we can address and provides talking points to help us plan for professional development, especially when representatives from all three programs are involved in the assessment design and/or implementation. It also very clearly revealed the issues discussed here and presented an opportunity for EKU Libraries, the Noel Studio, and the First-Year Writing program to work together for improvement of student learning, which, in turn, presented an opportunity for the Libraries to assess the effectiveness of its own instruction program within First-Year Writing. With that clear relationship in place, we are able to present our administrators with the specific ways we see this relationship increasing the effectiveness of the programs (library, writing program, and writing center) individually and in collaboration, and student learning as a result.

In addition to developing more effective and impactful support for student learning, academic libraries can also gain meaningful assessment data through partnerships with departments, colleges, programs, and/or disciplinary faculty. When engaged in such partnerships, libraries should seek opportunities to assist with established assessment initiatives, such as the biannual General Education assessment conducted by EKU's First-Year Writing program, or cocreate entirely new assessments, such as the secondary, IRB-approved assessment of our trilateral approach discussed herein. These opportunities provide an excellent avenue for academic libraries to establish and prove value, which are especially relevant to those academic libraries that lack their own credit-bearing information literacy programs and/or whose assessment practices are limited by the traditional "one-shot" library instruction model.

Conclusion

Our trilateral approach has taken a great deal of intellectual, physical, and collaborative work to achieve our limited success. However, the positive correlation our data show, between involving students in a collaborative pedagogical approach among EKU Libraries, the Noel Studio, and classroom instructors and students' showing their facility with integrating secondary sources into their own writing, encourages our belief that the work has paid off in intellectual dividends for our students. Our fields do our students a disservice to teach them to evaluate sources and avoid plagiarism without taking them the next step into a sophisticated and mature interaction with the information that informs their disciplines and interests. Programs such as ours—using multiple resources across campus—identify and target difficult transitions such as information literacy that serve as threshold concepts for academic success. We believe, and our data show, that a trilateral collaborative approach moves students into a meaningful space where their intellectual growth is scaffolded, and the facility gained can be maintained in a sustainable way for their academic careers, filling in what once was a gap.[33]

APPENDIX A. Library Instruction Program Charter

PURPOSE:

The primary purpose of the Instruction Program at Eastern Kentucky University Libraries is to assist students and other members of the EKU community to find, evaluate, and use information effectively.

DEFINITION:

Library instruction facilitates information-gathering skills through hands-on, active learning.

Library pedagogy is assignment-specific and topic-specific, and is not a general presentation without the context of an assignment.

Library instruction is distinguished from physical tours, general orientations, treasure hunts, or facilitation of assignments that do not include a research component.

GOALS:

The goals of the library instruction program at EKU are:

- To establish a community of lifelong learners who are critical seekers, finders, and users of information
- To establish a truly collaborative environment with faculty that involves librarians as an integral part of the research process

TYPICAL DELIVERY METHODS:

- Face-to-face
- ITV
- Online chat
- Online tutorials
- Teach the teacher
- Blackboard

Revised and Approved by the Instruction Design Group: March 24, 2010

APPENDIX B. Eastern Kentucky University Information Literacy Core Competencies

What is information literacy?

Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning.

Why is information literacy important?

Eastern Kentucky University (EKU) fosters personal growth and prepares students to contribute to the success and vitality of their communities, the Commonwealth, and the world. In support of this mission, EKU values "intellectual vitality, which is characterized by knowledge, scholarly inquiry, creativity, critical thinking, and curiosity." Information literacy empowers learners to be both consumers and creators of information who participate successfully in collaborative spaces.

What is the purpose of these competencies?

EKU librarians and teaching faculty alike recognize the importance of strengthening students' information literacy skills. In this context, information literacy is a shared responsibility among all stakeholders; it requires awareness of what others are doing in programs and initiatives across the university and in the community and, after awareness, a willingness to take deliberate, mindful action. To that end, these competencies are an attempt to provide a shared language to spark dialogue within the broader academic community. Such dialogue lays a foundation for integrating information literacy into learning opportunities: collaborating on assignment creation; coordinating syllabi across a department; providing direction for faculty workshops and training; or writing learning outcomes for assessment. These actions ultimately make information literacy more explicit to faculty and students and encourage ongoing conversation.

How are these competencies structured?

The skills goals are numbered to make conversations about this document easier. However, when this collection of competencies is used as a tool, it need not be used in this linear fashion. The order in which information literacy skills are learned is dependent on one's specific information needs and existing skills.

While the skills goals are not necessarily linear, the objectives within each goal are intended to build upon one another. A scaffolding hierarchy was used throughout the objectives to delineate a deepening understanding of information literacy as students progress in their education. For example, students in their major programs are expected to have already learned the information literacy skills listed under the General Education sections.

The objectives also may be used to begin identifying deficiencies in information literacy skills. For example, it might be necessary for a graduate student to relearn skills ordinarily expected of students at the general or major level.

How might individual faculty and departments interpret this collection of competencies?

Every effort was made to use inclusive language and to make concepts adaptable to any academic discipline. Individual faculty, departments, and units are encouraged to modify these competencies to better address the unique requirements of their dis-

ciplines. These competencies may be used as a lens through which to view existing assignments and to edit them to better elucidate information literacy skills goals.

Faculty may also use the document to:

- collaborate on assignment creation
- coordinate syllabi across a department
- provide a framework for faculty workshops and training
- write learning outcomes for assessment
- make information literacy more transparent

This collection of competencies is not intended to be an assessment document with measurable outcomes. The outlined teaching objectives are intended to shape instruction; measurable outcomes could be written to create a separate assessment document; however, that is currently outside the scope of this document.

The Six Skills Goals and Corresponding Objectives by Course Level

1. Construct a question or problem statement: Be able to articulate need for existing information and literature and develop a research question or thesis statement

General Education Courses:

- □ Define the topic and the information needed
- □ Seek information beyond course materials as necessary
- □ Develop a manageable focus appropriate to criteria of assignment

Major Program:

- □ Actively and independently seek sources beyond course materials
- □ Articulate research question or thesis statement within confines/context of discipline
- □ Use discipline-specific terminology

Capstone Courses/Graduate Programs:

- □ Develop an original research question that contributes to the body of knowledge in the field

2. Locate and gather information: Be able to locate information by developing a research strategy and identifying sources of information

General Education Courses:

- □ Create a research strategy (for example: identify keywords, create a search statement, use appropriate information sources)
- □ Identify various sources of help in searching (for example: library and classroom faculty, library staff, peers, library guides)
- □ Recognize that research is an iterative process that involves trial and error

Major Program:

- □ Identify core subject research databases
- □ Use advanced search features in subject research databases
- □ Identify a breadth of primary and secondary sources of information in the field (for example: scholarly journals, trade publications, books, government information, web-based resources, subject experts)
- □ Interpret and use citations to find additional literature
- □ Recognize tools for acquiring resources outside of libraries collections (for example: Library Express, WorldCat Discovery, and others)

Capstone Courses/Graduate Programs:

- □ Identify sources from foundational theorists and practitioners
- □ Construct advanced searches that yield discipline-specific results

3. Evaluate Sources: Be able to evaluate the quality, usefulness, and relevance of the information they discover

General Education Courses

- □ Differentiate among scholarly, trade, and popular sources and use them appropriately
- □ Evaluate resources (such as books, articles, websites, social media) in context for authority, accuracy, currency, fairness, and relevance
- □ Adjust topic after evaluating found resources as needed

Major Program:

- □ Define peer reviewed
- □ Make use of review tools (such as book reviews, annotated bibliographies, and other review tools) to evaluate information sources

Capstone Courses/Graduate Programs:

- □ Differentiate between types of research (like qualitative vs. quantitative)
- □ Evaluate research methods within studies
- □ Identify research biases within studies
- □ Apply evaluation criteria (such as journal impact factors) in the identification and use of key sources of information

4. Manage Information: Be able to manage information from a variety of sources

General Education Courses:

- □ Develop a strategy for organizing and storing information (such as Dropbox, e-mail folders)

Major Program:

- □ Identify and use tools to facilitate the creation and dissemination of knowledge (such as Google Drive)

Capstone Courses/Graduate Programs:

- □ Preserve/archive research, data, portfolio, thesis, project, and the like to ensure its future accessibility
- □ Use a citation management system (for example, Zotero)

5. Use Information Ethically: Understand the legal and ethical implications of using information appropriately and responsibly

General Education Courses:

- □ Recognize the basics of plagiarism and copyright
- □ Cite sources appropriately

Major Program:

- □ Develop an increasing awareness of responsible use of information, including copyright and types of plagiarism

Capstone Courses/Graduate Programs:

- □ Develop an awareness of author rights and open access publishing
- □ Adhere to professional ethical guidelines

6. Communicate Knowledge: Understand the disciplinary and societal context in which information is presented and created, and be able to contribute to that body of information

General Education Courses:

- □ Synthesize information from various sources
- □ Develop awareness of the information cycle

Major Program:

- □ Apply content knowledge to service learning environments
- □ Identify postgraduate resources for professional development, leadership, scholarly communication, and community involvement

Capstone Courses/Graduate Programs:

- □ Contribute to associations and networks related to the discipline
- □ Participate in the academic process of one's discipline (for example: discovery, proposal, funding, research design, dissemination)
- □ Share findings with peers in open forums

APPENDIX C. Noel Studio Requestable Workshops

Fundamentals of Communication

Citation & Documentation: MLA | APA | Chicago/Turabian Style: This hands-on workshop will provide a general overview of MLA, APA, or Chicago/Turabian style. The workshop facilitator will develop the workshop to meet the specific needs and/or protocol of your discipline, course, and/or assignment. Further, the workshop will include time for students to workshop their bibliographies; if students do not yet have bibliographies to workshop, the facilitator will provide hands-on activities.

Communicating for a Specific Audience: This workshop will help students understand how audience impacts their language and style choices when writing or speaking in various academic situations.

Developing & Refining a Creative Topic: In this interactive workshop, students will learn techniques to inject a little creativity into their research topics. After discussing how to liven up a research topic, participants can work on redesigning their own research topics or practice with sample topics.

Developing a Thesis Statement: In this workshop, students will learn the basic elements of a thesis statement, analyze examples, and workshop their own thesis statements with immediate feedback.

Reducing Speech Anxiety: In this workshop, students will learn techniques to minimize and camouflage the side effects of speech anxiety.

Synthesizing Research: In this workshop, students will use sources to practice identifying points of a debate and organize them into a cohesive argument.

Beyond the Fundamentals of Communication

Collaboration in Communication: This workshop will help students through the challenges of writing or presenting as a group. During the workshop, students will learn the importance of assigning roles and develop a plan of action for completing the project.

Designing Research Posters: In this workshop, students will identify the purpose of a research poster, learn the basics of visual rhetoric, and brainstorm ideas for their own posters.

Facilitated Peer Review: In this workshop, consultants will join students in their small groups and act as facilitators for the in-class peer review. Depending on the length of the project, the number of students in the course, and the duration of the class period, more than one class meeting may be necessary to address all students' projects.

Incorporating Visuals into a Communication Project: In this workshop, students will learn how visual elements can serve a meaningful purpose; how to determine what type of visual is rhetorically appropriate; and how to experiment with visual resources.

The Rhetoric of Evaluating Information: This interactive workshop will encourage students to consider the author, the intended purpose and audience, and the context of an information resource to evaluate the credibility and effectiveness of the information resource and determine its appropriateness for inclusion—or exclusion—from their own communication product.

Surviving the Literature Review: In this workshop, students will discuss the purpose of the literature review and its discipline-specific variations; how to identify themes or gaps in the literature; and best practices for organizing the literature review.

APPENDIX D. First-Year Writing Trilateral Assessment Rubric

Question A: What types of sources is the student using?

1—Inappropriate for college and/or topic
2—Somewhat appropriate for college and/or topic
3—Mostly appropriate for college and/or topic
4—Effectively appropriate for college and/or topic

Question B: At what level has the text been formatted with citations using MLA or APA?

1—Citations/formatting does not show any clear approach
2—Citations/formatting is still developing with many errors
3—Citations/formatting is adequate but with some clear errors
4—Citations/formatting is effective with very few or no errors

Question C: Is the integration of outside sources meaningful to the text (that is to say, helps develop points, provide evidence, and prove thesis)?

1—No, use of outside material shows no sense of integration or meaning
2—No, use of outside material seems forced and/or awkward
3—Yes, at an adequate level that may show some awkwardness
4—Yes, at a high level appropriate for college-level writing

Question D: Does the student's use of outside sources reflect an understanding of the greater conversation of his/her topic?

1—No, the student obviously just did research as part of the requirements of the assignment and may not have understood the reading
2—Yes, but only at a very basic level and/or inconsistently and may show some misreading
3—Yes, at a competent and persuasive level that could use improvement
4—Yes, at a sophisticated and effective level

APPENDIX E. Eastern Kentucky University First-Year Writing Grading Rubric

C = Competent (70–79)

A competent text meets the following standards:

- Follows assignment instructions as specified by the instructor.
- Is organized as the assignment requires (summary, narrative, argument, analysis, and so on).
- Meets assignment requirements for length, genre, approach, or rhetorical situation.

Unity

- Focuses on a specific purpose for a defined audience (SLO 1).
- Defines a topic leading to a clearly stated thesis (SLO 2).
- Analyzes and synthesizes evidence coherently around thesis throughout the text (SLO 5).

Development

- Provides adequate and relevant supporting information gathered from the critical reading of college-level texts from primary sources for 101 and from primary and/or secondary sources for 102 and 105 (SLO 3).
- Shows careful research and use of trustworthy sources (if required) (SLO 3).
- Integrates the student's ideas with the ideas of others to draw conclusions and build arguments (SLO 4).
- Paraphrases, summarizes, and quotes sources effectively (SLO 6).
- Documents all sources appropriately in-text and in a reference listing such as a Works Cited when quoted, paraphrased, summarized, or otherwise used for information (SLO 6).

Conventions of Academic Writing

- Uses sentence structure, tone, voice, and vocabulary appropriate for academic writing (SLO 7).
- Has been proofread and edited carefully to reflect Standard English considerations such as grammar, punctuation, and spelling (SLO 8).
- Is formatted according to MLA or other standards of the assignment (SLO 8).

B = Persuasive (80–89)

A persuasive text meets the following standards in addition to the competency standards above:

Coherence

- Presents effective transitions between paragraphs and between sentences.
- Uses clear prose including sentence-level style such as variation, rhythm, vocabulary, and phrasing.

Evidence

- Develops points thoroughly with specific and concrete evidence (ex: quotes, data, statistics).
- Engages with an appropriate number of reliable, college-level sources for support.
- Integrates evidence from outside sources smoothly and with precise documentation.

A = Accomplished (90–100)

An accomplished essay distinguishes itself through one or more of the following characteristics in addition to meeting the competent and persuasive standards above:

Clarity	Accuracy	Precision	Relevance
Depth	Breadth	Logic	Significance
Fairness	Seamless	Coherence	Sophistication
Recognizable Voice			

D = Developing (60–69)

A text is developing and will receive a D if it attempts to establish a controlling purpose but fails to competently maintain unity throughout the composition. This text may also lack audience awareness, coherence, and/or evidence and/or have several problems with the conventions of academic writing. *You should schedule a conference with your instructor if your text earns a D.*

F = Beginning/Ineffective

A text that does not meet the basic standards of competency will receive an F. *In this case, you should schedule a conference with your instructor to discuss your ability to be successful in the class.*

This text does not meet competency standards because it shows:

- minor problems in all areas, or
- major problems in one or two competency areas.

The most common reasons for receiving an F include unintentional plagiarism, failure to meet assignment requirements such as length or research, or lack of a controlling purpose or thesis.

If you are found to have plagiarized intentionally, your paper will be removed from this general rubric, and we will follow guidelines for an infraction of Academic Integrity. You can see EKU's Academic Integrity policy at www.academicintegrity.eku.edu.

STUDENT:

GRADE:

COMMENTS:

APPENDIX F. Noel Studio Graduate Assistant Workshop Coordinator

The Graduate Assistant Workshop Coordinator is selected from the 20-hour-per-week English GAs. The GA Workshop Coordinator's time will be divided between consultations (10 hours/week) and facilitating and coordinating Noel Studio workshops (8 hours). The GA Workshop Coordinator will also serve as a member on the Professional Development Committee. The responsibilities of the GA Workshop Coordinator include:

- □ Meeting with Coordinators weekly to discuss workshops
- □ Developing pedagogical approach for upcoming workshops
- □ Checking the Workshop Request Submission form weekly
- □ Working with Research and Writing Coordinator to schedule, assign, and plan workshops
- □ Scheduling Consultants to facilitate workshops as needed
- □ Developing, preparing, and managing workshop materials, including Active Learning Toolkits
- □ Preparing and training workshop facilitators as needed
- □ Observing and providing feedback to workshop facilitators
- □ Contacting faculty members prior to scheduled workshops for assignment details
- □ Managing Workshop Statistics form (ensuring each week's statistics have been entered)
- □ Facilitating workshops

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27. The Noel Studio revised its administrative structure in Fall 2016 and now includes an Associate Director, Programs & Outreach (formerly Research Coordinator) and Assistant Director, Writing & Communication Programs (formerly Writing Coordinator). Each position maintains its previous connection with EKU Libraries and First-Year Writing, Department of English and Theatre.

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33. We must acknowledge that our data might be affected in other ways: the very best instructors who are cognizant of the need to involve both EKU Libraries and the Noel Studio in bridging the information literacy gap are probably also the instructors who are most up-to-date on *other* best practices, who attend professional development workshops, and who are more generally attuned to the needs of their students. For these reasons, we cannot isolate a trilateral approach as the only variable at work here, but we can say with confidence that it is a best practice contributing to student success in this area.

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