# Overcoming the Barriers to Information Literacy Programs: CALM Lab for English Majors at Dickinson College

by Christine Bombaro

In 2006, Claire McGuinness of University College Dublin published "What Faculty Think —

Exploring the Barriers to Information Literacy Development in Undergraduate Education," an article depicting a grim outlook for information literacy in higher education. The title of the article stated what many librarians would perhaps be reluctant to say on record: that information literacy "has not yet become a priority for academic faculty" (McGuinness, 2006, 580) and that librarians had yet to employ effective strategies for partnering with faculty members to improve student outcomes (McGuinness, 2006). Studies cited in library literature by McGuinness and in other articles too numerable to mention consistently demonstrate that information literacy programming is lacking at colleges and universities, and offer advice on creating effective partnerships between librarians and faculty members. <sup>1</sup> Despite reports of successful models of information literacy instruction, librarians seem to find it difficult to move past the ubiquitous "one-shot" session, or extended involvement only in writing composition courses. Their efforts at integrating information literacy meaningfully into the curricula of their colleges and universities seem continuously stymied.

Librarians tenaciously deliver the message that information literacy is not about the mechanics of using online resources but rather about analytical thinking. We remind our faculty colleagues that

<sup>&</sup>lt;sup>1</sup> A simple search for faculty/library partnerships in library literature databases produces articles such as: Nalani Meulemans, Y. and Carr, A. (2013), "Not at your service: building genuine faculty-librarian partnerships," *Reference Services Review* Vol. 41 No. 1, pp. 80-90; Sajdak, B.T. (2012), "Let the faculty do it," *College & Research Libraries News* Vol. 73 No. 4, pp. 196-199; Mounce, M. (2010), "Working together: academic librarians and faculty collaborating to improve students' information literacy skills: a literature review 2000-2009," *Reference Librarian* Vol. 51 No. 4, pp. 300-320.

information literacy, much like writing or any other subject, cannot be learned in one fifty-minute inoculation during a student's first year. We argue that the model of working with individual faculty members, rather than departments, results in inconsistency and inequity of knowledge among students. Faculty members themselves observe that, without training, their students are not making informed decisions during the research process – if they are in fact adhering to a "process" at all - nor are they responding in writing to the research conventions of their chosen major. Yet with all of this agreement about the need to establish information literacy in the undergraduate population, it remains difficult for librarians to achieve solutions that are formalized, consistent, and mandated in the curriculum.

Information literacy skills are especially critical for English majors, and literary studies is an area in which librarians frequently are able to form meaningful partnerships with faculty. Students of literature are constantly challenged to bridge gaps among disciplines, framing literary works within any number of contexts including religious and spiritual, historical, sexual, psychological, environmental, and political. They must learn the mental flexibility to research in ways that initially seem contrary to their understanding about how to study the written word, particularly as they begin to explore primary source material (as opposed to primary literature) and delve into research outside the humanities. However, even in this challenging research environment, few reports exist of achieving true course integration in English programs.

Most librarians are challenged not by willingness to advance information literacy integration on their campuses, but by their lack of influence in the institutional governance process and their inability to motivate faculty sufficiently to support a curricular change when other seemingly more pressing priorities demand attention. Part of the problem with mandating information literacy is finding an appropriate place to situate it. Even though information literacy is a requirement of accrediting agencies, colleges and universities persist in relying on departments to ensure that students acquire appropriate information literacy skills rather than building it into general curricular requirements. While

it does makes sense for students to learn information literacy within the context of an academic discipline, this approach, which is usually not mandated, allows information literacy to be marginalized or completely ignored as course content is often favored over the recursive application of important skill sets.

Making significant changes to an overloaded curriculum in which information literacy is seen as peripheral to course content is sometimes so challenging that it may seem easier not to pursue.

However, those challenges are surmountable when countered with the fostering of good faculty/librarian relationships, determination, and, most importantly, evidence demonstrating both the need for change and the difference that library intervention can make in the work of students. This article recounts the lengthy but rewarding process by which faculty members of the English Department and their librarian at Dickinson College collaborated to develop an information literacy laboratory that is consistent and effective, is frequent and timely yet does not intrude on course content or class time. A review of library literature does not reveal a program comparable to Dickinson's, which made its way through the campus governance process to become a requirement of the English major. However, one can find many articles that identify the need for systematic information literacy instruction and debate reasons for the lack of compulsory models in higher education.

#### **Review of Literature**

McGuinness was not the first to lament that information literacy is more of "...an aspiration rather than a fully realised [sic] ideal" (McGuinness, 2006, 574). Her review of studies identifying barriers to faculty/librarian cooperation cited nearly fifty sources dating back to the 1970s, many of which ascribe their lack of progress to their difficulties in finding dedicated faculty partners. Faculty members in these studies present as unwilling to collaborate in creating information literacy programs, and in some cases are even hostile about the intimation that they are somehow failing to impart research skills to students without a librarian's intervention. Some librarians in the studies mentioned

that their dependency on cooperation with a few "library-friendly" faculty members meant that their programs are likely to dissolve once either party can no longer be involved.

Such dependence on factors perceived to be outside any librarian's control has led scholars in library literature to heavily debate the question of how to situate information literacy within academic programs. In 2003, Edward K. Owusu-Ansah suggested that debating the definition of information literacy and its relationship to information technology was one factor hampering the more important duty of librarians, which is to develop effective, institutional approaches to library instruction. He noted that information literacy is recognized as critical by accrediting boards, and suggested that librarians devote attention to developing institutional structures for delivering information literacy instruction to all students (Owusu-Ansah, 2003). In 2004, Diane Zabel issued a scathing response to Owusu-Ansah's article as well as other assertions in the literature similar to his. While Zabel agreed that librarians "should play a central role in developing more information-literate students" (Zabel, 2004, 17), she disagreed that librarians should push to mandate information literacy. Zabel pointed out that, at most academic institutions, making changes to the curriculum is a difficult and lengthy process that requires proposals which must include learning outcomes and cost-benefit analyses, including the effect on personnel and facilities. She added that the additional requirement on students could affect their graduation timeline by forcing new courses into schedules that were already difficult to manage. Zabel instead advocated the infusion of information literacy throughout a student's career, starting with the first year and from then on tied to each specific discipline.

In her own study, McGuinness found that some faculty members believe they are already adequately covering information literacy throughout the curriculum in their classes despite evidence to the contrary. Some of her respondents assumed that students were somehow absorbing appropriate information literacy behavior during their normal coursework by seeking advice from peers, and that students who are more naturally motivated scholars would figure out when and how to research on

their own. McGuinness concluded that information literacy programming is difficult to achieve because institutions of higher education do not mandate it, nor is there any impetus on faculty to achieve it. Her suggestions for bringing information literacy to the forefront include assertive marketing, librarians publishing in journals outside the realm of library science, providing professional development opportunities for faculty that include information literacy, and "lobbying of university governors for the inclusion of [information literacy] as a criterion for promotion and tenure" (McGuinness, 2006, 580).

Although McGuinness does not say it explicitly, what she advocates is that librarians provide the practical justification necessary to support information literacy as a legitimate and necessary component of academic programming.

Other articles in the literature are unequivocal in their calls to situate information literacy prominently in college and university curricula. In 2007, Owusu-Ansah reiterated his recommendation that colleges and universities develop credit-bearing information literacy courses and this time placed responsibility for effecting these changes squarely in the hands of librarians. For too long, Owusu-Ansah said, librarians had abdicated control of information literacy education to the faculty under the guise of "collaboration" (Owusu-Ansah, 2007, 419), and he challenged librarians to "do everything they can to become as central to the teaching/learning mission of the academy as the other central participants in the higher education enterprise" (Owusu-Ansah, 2007, 425). A longtime proponent of credit-bearing information literacy courses, William Badke went so far as to say that "true information literacy will not become a reality until it is elevated to the status of an academic discipline that has a confirmed role within the curriculum" (Badke, 2008a). Badke noted that information literacy should be "lodge[d]...into the cores of majors or making them significant components of courses across the curriculum" (Badke, 2008a). He offered "Ten Reasons to Teach Information Literacy for Credit," which include classroom preparation, life-long learning, and career preparation (Badke, 2008b). Finally, Derakshan and Singh published a "meta-synthesis" of journal articles that examined faculty views on information literacy.

Their findings revealed that "few models of systematic collaboration between academics and librarians exist," that many academics are themselves inadequately prepared to train their students in information literacy skills, and that integrating information literacy "as a part of or [in] all levels of curriculum" is a frequent aspiration noted in library literature. (Derakshan and Singh, 2011, 225, 227).

# Dickinson College's English Major

Around the time that McGuinness' article was published in 2006, Dickinson College was no model of exception in regard to advancing information literacy within academic disciplines. Although the college did (and still) requires all first-year students to complete an academic integrity tutorial as well as a research exercise as part of its first-year program, no college-wide mandate existed for the systematic, intentional attainment of information literacy skills. The college left the decision of when (and if) discipline-specific information literacy outcomes would be included in the curriculum with each academic department. At the time, only the History Department had any formalized structure in place for high-level, discipline-specific information literacy instruction that included librarians and archivists as co-educators throughout a course required of all its majors. Efforts to expand in other departments were often thwarted by many of the "barriers" noted by McGuinness, including the librarians' lack of direct influence over college governance, ineffective marketing efforts, and disinterest on the part of the faculty.

This is not to suggest that little information literacy was taking place on campus, or that few faculty members were interested in training their students to become better researchers. To the contrary, statistics show that librarians taught more than two hundred class sessions in both 2006 and 2007. In the English Department alone, seven to ten individual classes were visited by librarians each year between 2006 and 2009, with almost all of the faculty members in the English Department requesting sessions at one point or another. The department was not only following an unstated directive to contextualize information literacy within the major, but also were providing students with

more exposure to information literacy than any other department. The problem was not that insufficient instruction was taking place, but rather that there was a lack of consistent information literacy education across the English Department's curriculum.

The requirements to complete an English major at Dickinson likely are similar to those at many other colleges and universities offering similar degrees. Students must complete 11 courses within the department, of which one must be English 220 – Critical Approaches and Literary Methods. English 220 introduces students to different contextual approaches to literature, textual analysis, and literary terminology, and teaches them to create an original argument. Beyond 220, English majors must complete six 300-level courses, mainly of their own choosing but varied in historical era, and most of those are considered writing-intensive. Students complete the major with a 400-level, year-long, reading and writing workshop that culminates in the production of a lengthy research paper.

English 220 is a fundamental course in the English major. It is described in the course catalog as an introduction to "basic questions that one may ask about a literary text, its author, and its audience" (Dickinson College, 2013). The description adds that the course will "offer instruction in the elements of critical writing" but does not specify whether that instruction is meant to include research as one of those elements. Because all members of the department alternate teaching the course, different interpretations of what is meant by "critical writing" in the context of the 220 course existed prior to 2009. Some faculty members thought that research skills should be introduced in 220 and regularly invited a librarian to consult with their classes; others thought that an extensive research component was more appropriate in the 300-level courses. Library research sessions were thus conducted in a variety of courses at the 200-, 300- and 400- levels without any sense of continuity or consistency. As a result, depending on whose courses they took or how much time they spent studying abroad, some English majors received quite a bit of instruction with much redundancy, some got a little instruction with no follow-up, and some got none at all. This haphazard method of training obviously left some

students with advantages over classmates who were paying for the same education in the same department, but were not being provided with the same learning opportunities.

The inconsistency in students' research abilities made itself obvious at the library's reference desk. Sometimes well into their senior experience, students - often diligent ones - would approach librarians asking for help in a panic because they had been able to find "nothing" on their topics.

As the librarians probed for information during reference consultations, a number of deficiencies in research skill among Dickinson's English majors emerged, including that:

- Some did not know how to use the library catalog or WorldCat to find a copy of a primary text.
- Many were not aware of the existence of the MLA International Bibliography database (the
  principal research database for literary studies) and few searched more than one general
  purpose database to find relevant material.
- Many did not know how access articles; indeed, many could not determine whether the college subscribed to a particular journal or how to search within it when they were directed to a specific citation.
- Most were unable to recognize literary criticism and differentiate it from other types of research material related to literary studies.
- Once they did locate secondary research material, many students had difficulty identifying a work's main argument and putting sources in conversation with one another.
- with rare exception, students did not recognize the difference between secondary and primary sources and could not gauge the authority of different types of sources. Most thought that by reading the primary literature, they were consulting "primary sources" and were therefore ignoring critical sources that contextualized the literature, such as an author's letters, memoirs, interviews, newspaper articles, etc.
- Many were not properly using the MLA citation style.

Reference transactions related to the English major were recorded for about two years, after which the library liaison presented the findings to the English department. Considering the wealth of literature on the topic of undergraduate students who are ill-prepared for college-level research, none of these findings were particularly surprising. Yet the disconnect between what students should have known after their first-year seminar experience and their work in subsequent English classes was disappointing and disheartening for the faculty. The faculty verified that some seniors were entering their seminars less well-prepared to engage in a large-scale research project than they should have been, and related by way of anecdote that they were noticing the same problems the librarians had. The unfortunate result was inconsistent and sometimes substandard research projects. As the faculty started to discuss potential solutions, they realized that they needed to take the lead in overcoming information literacy deficiencies and find a place for it in the curriculum. The librarian had prepared a plan that would infuse research instruction with English 220, which was chosen because it was the only specific course that all English majors were required to take prior to taking a senior workshop. The plan suggested that a librarian participate in the class by assigning and evaluating a research prospectus, teaching students how to find and select literature-specific sources, write annotations that contextualize the sources and put them in conversation with one another, and cite sources appropriately using the MLA style.

The department agreed in principal with this plan, and in fact was willing to implement it with little change. Because of the lack of specificity regarding research in 220, however, the faculty could not come to immediate agreement on what level of research intensity belonged in that course. Even those who routinely included research training in 220 agreed that substantial research projects were better suited to 300-level courses, after students had learned the various methods by which to analyze works of literature. It seemed that the best way to proceed would be to somehow connect research instruction with the 300-level classes.

Linking instruction at the 300 level presented a scheduling and enrollment problem. In order to ensure that all English majors were reached, each 300-level class would have to participate in library instruction. This would require the English Department's library liaison to work with up to eight 300-level classes several times every semester, a task that would be extremely taxing on time considering that upwards of 120 students would be enrolled. Even if that were possible, this would mean all of the English majors would be repeating the same research instruction at least four times if they decided to spend their junior year studying abroad, but more likely six times or even more! Clearly, this would result in a waste of everyone's time. We considered various options and configurations until the librarian proposed gathering students from the various classes at a time separate from their normal class period. This idea would allow us to extract from enrollment lists only those students who were taking their first 300-level class, thus avoiding repetition and keeping class size manageable, with the added benefit of not intruding on each faculty member's classroom time. We envisioned that students could customize the research experience to make their work relevant to any 300-level class in which they were enrolled.

#### Challenges

Creating a requirement for a large group of students outside of the normal practice for course teaching and scheduling was exciting in theory but presented some significant practical challenges.

Dickinson College is a residential, liberal arts college that is committed to providing students with a full and varied academic and social experience including participation in sports, clubs, guest lecture series, and other campus events. Dickinson's registrar requires that no classes start before 8:30 AM and that they end by 4:30 PM, so our first challenge was in determining when the sessions could be held.

Second, having library instruction scheduled separate from the classroom time meant that the sessions were starting to resemble an additional course. Like other colleges and universities, Dickinson requires that new courses go through a formal review process and a vote before they can be listed in the course

catalog and taught for credit. Technically, students could not be required to attend additional sessions separate from their regular course without formal approval. According to faculty legislation, most instructors at Dickinson are required to have Ph.D.s. Librarians at Dickinson are not required to hold a Ph.D., are not on the tenure system, and are not considered faculty members. Anyone who proposes to teach for-credit courses as an adjunct without a Ph.D. requires special permission from the college's Faculty Personnel Committee, and these exceptions tend to be temporary or due to a pressing need such as a short-term leave replacement.

To solve these problems, the English Department's Professor Moffat, who assumed leadership in guiding CALM Lab through the system for approval, looked to the science departments for inspiration. Every student at Dickinson must take two semesters of laboratory science to satisfy graduation requirements. Astronomy is offered at Dickinson, and labs requiring the use of the observatory obviously must be held in the evenings. Additionally, due to sabbaticals and the huge demand placed on available lab seats, exceptions are often made for adjuncts without Ph.D.s to teach the laboratory component of introductory-level science courses, while a tenure-track faculty member with a Ph.D. would teach the lecture and discussion portion of the course. By equating our new research experience to a science laboratory, we hoped to forestall some potential concerns on the part of the personnel committee.

This line of thinking also helped us come up with a title for the new course. Although we had envisioned the course to be taken concurrently with the first 300-level class, we considered the work to be an extension of 220, the title of which is Critical Approaches and Literary Methods. As we started to think of the new course as a research "laboratory," the sessions came to be known as Critical Approaches and Literary Methods - or "CALM" - Lab.

To proceed with the course without seeking formal approval via our faculty governance process, we introduced the sessions as an experimental pilot and took care to adequately assess student learning

outcomes. In the spring semester of 2009, two senior professors required their students, about 30, to participate in the first CALM Lab.

#### What is CALM Lab?

CALM Lab, which eventually took on the number ENG 300 in the course catalog, is a two-session research instruction module that adopts current standards and best practices in information literacy in order to help students understand and use the tools, applications, and proper citation for literary research. Faculty members adopted a common "boilerplate" message in their syllabi to describe CALM Lab to the students:

ENG 300 - C.A.L.M. Lab: If this is your first 300-level literature course in the English Department, you will be required to complete ENG 300 - C.A.L.M. Lab, that is, the Critical Approaches and Literary Methods
Laboratory. This research module allows students to apply their work in English 220 into research and writing expectations for 300-level courses.
C.A.L.M. Lab adopts current best-practices for using Dickinson's library resources; it also helps students to understand the tools, application, and proper MLA citation for all subsequent research in the English Department. Students will be taught how to shape a research prospectus, find materials in our electronic databases, and properly annotate sources in an MLA Works Cited bibliography.

CALM Lab reinforces the best practices in library use and research at a critical time in the English major. In 300-level courses, students are expected to apply the concepts of English 220 as they write original research papers. Specific goals for students enrolled in CALM Lab include:

• Creating a preliminary research plan.

- Using literature-specific research tools in order to gather the most reliable and appropriate information available on any literary topic.
- Exploring supplementary research tools that help students place works of literature and their authors in appropriate contexts.
- Developing a working thesis or research question.
- Finding and using primary sources to supplement the analysis and critique of literary texts.
- Identifying a source's thesis and evidence in order to place the source in conversation with the works of other scholars and advance an original argument.
- Appropriately integrating research material into a research paper.
- Citing properly in the MLA style.

The focus of CALM Lab is not any particular topic, but rather the process of finding relevant research material efficiently, analyzing it to formulate academic questions, and using the material ethically to create original work. We anticipated that providing students with a controlled and safe environment in which to practice these skills could allow them to complete their research projects with competence and confidence in their abilities to research effectively and use sources ethically. Students taking more than one 300-level English class in the same semester were encouraged to use CALM for the one they expected to be more challenging, so as to benefit the most from the assistance of the librarian.

# What Happens in CALM Lab?

Prior to the first CALM session, the librarian contacts all enrolled students to prepare them for the experience, which usually begins three to four weeks into the 16-week semester. Students are notified by email of class dates, assignments, and deadlines. CALM Lab's syllabus, assignments, readings, and other documentation are made available through the Moodle course management system. Because the librarian's time with the class is limited, much emphasis is placed on the independent work that students are required to complete prior to each class meeting.

In the initial contact, students are notified that they must write a research prospectus prior to the first class meeting, describing in as much detail as possible the project that they expect to pursue in the 300-level class to which they are attaching CALM Lab. When CALM Lab begins, students usually are not at the point in their class when they must submit a thesis. Although they do not need to have a thesis for CALM Lab, they are expected to use the experience to consider a research direction and use the material they find to help formulate a working thesis or at least a question that may later turn into a thesis. To that end, they are instructed to initiate a discussion with their professor regarding possible topics to explore. This preliminary writing assignment also asks students to consider their prior research experiences and describe what successful strategies they have used in the past. As well, it serves several other purposes: to help guide discussion during the first class meeting, to focus the students on their topic, to encourage students to start exploring library resources, and to serve as a comparison with their work at the conclusion of the lab so that learning can be assessed.

During the first meeting of CALM Lab, students are introduced to the purpose and expectations of the lab and a discussion is held about the results of the preliminary writing assignment. The librarian then directs the students to the library's website to identify the best research tools specific to literature, including literary encyclopedias and literature-oriented databases such as the MLA International Bibliography and Gale's literature criticism series. Students are given an assignment that requires them to build a short annotated bibliography of secondary sources in the MLA citation style. Annotations require that students identify a work's thesis and explain how each item chosen for the bibliography engages the original research question. The last part of the assignment asks students to write a few paragraphs describing the current state of their approach to their topics, and how it evolved as they obtained and analyzed sources. Students are not given a grade for this assignment. Rather, the librarian comments heavily upon their work and provides a "provisional" grade that reflects what it would have

been had the assignment been considered a final product. Students have ample opportunities for revision before the bibliography is considered final.

During the second session, the librarian takes questions about the first assignment and provides general suggestions on how to make improvements for the revision. Common difficulties include annotating thoroughly and citing correctly, though students usually do not have difficulty finding viable sources at this stage. The librarian then leads a discussion about primary sources, which English majors tend to confuse with primary literature. Students are asked to identify different types of primary sources and the class considers how they may be useful in addition to the secondary source articles and books they have already found. The librarian then guides the students toward finding a primary source related to their topics. During this second session, the librarian also introduces the college's bibliographic management tool, and explains how to find and use book reviews. The final assignment requires students to re-draft their first bibliography and add and annotate several primary sources. For primary sources, the annotation must explain what the source is and how the student found it to be helpful. Finally, students are asked again to reflect on the research process. They write a few additional paragraphs explaining how the sources they found influenced their ideas and opinions about the topic, and how those ideas changed from the original research question. Final grades are based upon a rubric which is reviewed with them during the first meeting.

#### Making It Official

An initial assessment of CALM Lab was completed at the end of the pilot in spring 2009. Most students completed the work satisfactorily; only those who did not attend class or submit assignments, or who did not follow instructions (after repeated interventions) failed the lab and were required to repeat it if they decided to remain English majors. CALM Lab is labor-intensive work for the librarian, as reviewing of the assignments and offering appropriate feedback is time consuming when the work of

each student is given the time it deserves. However, initial assessment indicated that the sessions were worth the effort put into it.

Several assessment techniques were used to gauge student learning throughout the lab. First, their initial reported use of library resources, gathered from the research prospectus, was compared against their use of various resources at the conclusion of the lab. At the beginning of the lab, about one-third of the students reported using the library catalog and MLA; by the end of the lab, they were all using those resources. After CALM Lab, they were reducing reliance on general-purpose databases; and none were relying solely on an Internet search. Of course, students were required to use a variety of resources, including the library catalog and the MLA International Bibliography database, to pass CALM Lab, so written feedback from students was critical in determining whether this improvement was likely to become habit or whether they engaged in the process simply to pass. Further assessment would be required to answer that question. On the last assignment, students were asked to provide feedback about their experience with CALM Lab, and they were also given a traditional end-of-semester course evaluation form to complete. Their comments were generally positive and insightful, and validated the need for CALM Lab. Additionally, students revealed that authentic learning took place. Typical comments included the following:

"CALM Lab was a good experience and taught me a great deal about researching, for instance, I did not even know that MLA was a database and now it's the primary database I use for [literary] research."

"The sessions and exercises were quite useful to introduce me to a citation style that was unknown to me, the resources in the library and online at our disposal, and how to properly write an annotated bib."

"I found it most helpful in pointing out various databases that otherwise I probably would have overlooked. The info on RefWorks in particular has turned out to be extremely useful thus far."

The two faculty members whose classes participated in the CALM Lab pilot were asked to provide feedback about the students. One reported having to do "less remediation" with students who had taken the lab, and another said:

"...for the students who took CALM, their bibliographies did improve. The mental rehearsal needed to draft and revise a biblio is something I assume few of them have had to do before, and I would say that this was my strongest set of biblios for a 300-level course to date."

Following this initial assessment indicating that CALM seemed to be having a positive impact, the lab was repeated the following semester, this time including students from six 300-level English courses. The second iteration incorporated changes based on some excellent suggestions from students in the pilot, such as a formal syllabus and better timing in relation to the academic calendar. (The pilot required work to be submitted during mid-terms week, and we agreed that since CALM is flexible in scheduling, we could reduce the burden on students by setting due dates during weeks likely to be lighter on work in other courses.)

With that, the English Department began the process of making CALM Lab become a permanent part of the curriculum and a formal requirement of the English major by submitting a proposal to the Academic Programs and Standards Committee (APSC). This committee, which is comprised of elected faculty members and a selected group of administrators, ensures that new courses meet the college's academic standards, recommends changes or improvements to the proposal, and, if the proposal meets standards, presents it for a vote at monthly faculty meetings.

Several other details regarding enrollment, grading, and credit had to meet APSC's approval before the course could be presented for vote. First, the committee and the English Department

decided that the lab should be considered a "Pass/Fail" class, and that students who successfully completed it would receive credit for it on their transcripts without the grade figuring into the students' grade point averages. Students who did not complete the lab successfully would receive an "F" on their transcripts, and be blocked from registering for additional 300-level classes without also co-registering again for CALM Lab. A student who passed CALM Lab after initially failing it would not have the failure removed from the transcript. Any student not passing CALM Lab by the time he or she was ready to register for the senior workshop would, in most circumstances, no longer be permitted to major in English. Representatives from the Registrar's Office helped this process immensely by figuring out an automatic process by which to identify students who needed to enroll in CALM Lab. All of these measures, collaboratively developed among the library staff, the English Department, and APSC, gave CALM Lab the same legitimacy as other courses, and at the same time reduced the likelihood of the librarian having to take arbitrary punitive actions for lack of cooperation.

In spring of 2010, CALM Lab passed unanimously in a faculty meeting without comment or further change.

# **Assessment**

Student performance in CALM Lab was assessed each year following the pilot, with results consistently similar to that of the first assessment in 2009. In the spring of 2013, we conducted a retrospective analysis of CALM Lab to gather feedback not only from current students and faculty members, but also English major alumni who were then in graduate school or the work force. With the assessment, we hoped to determine not only whether course was useful for their immediate class needs, but also whether its placement within the curriculum was appropriate, and whether it resonated beyond the major. Because the scope of the survey was small and involved data from a normal classroom setting, Institutional Review Board approval was waived for this assessment.

One-hundred and seven students who were still enrolled at Dickinson College in 2013, had completed CALM Lab, and had since taken additional 300-level courses were invited to participate in a survey asking them to reflect upon their experience. Of those who were contacted, twenty-two, or about 20%, responded to the survey. The first question asked "How well did your experience in CALM Lab prepare you to research papers for your 300- and 400- level classes." As illustrated in Figure 1, all of the students answered "Adequately Prepared" or better; none responded that CALM Lab left them "not very well prepared" or "not at all prepared."

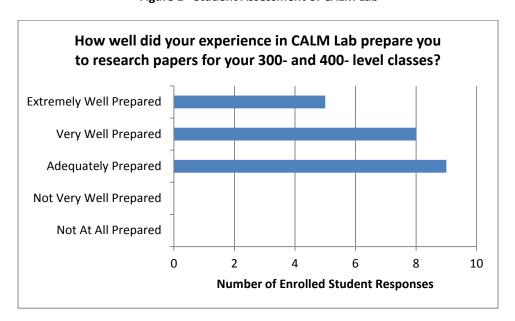


Figure 1 - Student Assessment of CALM Lab

Students were asked to comment on this question in further detail. The thirteen who responded reported general feelings of greater confidence with the research process and increased success in finding relevant source material in a lower-stress environment. Representative comments include:

"I was able to gather sources more specifically attuned to my topics more quickly after learning which and when to use the electronic resources of the college. In addition, I was able to branch out in my selection of sources, having learned new ways to locate primary documents as well as books and articles related to my topics."

"It's great to be able to approach a big research project without the overwhelming stress of writing a huge paper and being graded on it."

"It helped me to gather my thoughts ahead of time so that the actual research process itself went smoother."

Additionally, students were asked to reflect upon how their approach to research changed, if at all, after CALM Lab. While two out of twenty-two respondents said "it didn't" and "not at all," most described some significant change in their own process. Of particular interest is that some students reported that they began allowing the research project to change and shape their research question, rather than continuing their old habits of trying to force the research to fit a preconceived notion. Representative comments include:

"[I realized] that a truly useful source will lead to other sources and help in the refining of a topic and ultimately, a thesis. Looking for areas that aren't covered in the research ultimately helps in discovering something new and interesting to add to the conversation."

"CALM Lab helped me see the benefits of working on the research for a paper far in advance."

"After CALM Lab, my research paper writing process was more methodical, organized, and meaningful."

"Before taking CALM Lab I would almost never complete a draft of a paper, now I always do."

Faculty

The second part of the retrospective assessment asked faculty members to report on whether students who have completed CALM Lab were demonstrating that they were adequately prepared to conduct research. Nine faculty members out of thirteen responded. Their observations complimented those of the students', noting that they exuded more confidence in their ability to research, that their sources were more scholarly and their research process more methodical, and that students were using sources more judiciously, particularly while in the development stages of a thesis. Faculty members

who had been with the college for more than five years also reported that students required less remedial help with research than they did before CALM Lab existed. Representative comments include:

"They seem much more confident in doing self-directed research on secondary materials, and seem to have developed a good sense of how to judge appropriate materials."

"They no longer require extensive tutoring in databases, for starters, and they have a good idea about how to find the thesis in critical articles, which they demonstrate by writing strong annotated bibliographic entries."

"[There is] some improvement in the way they use their sources -- reflecting, say, a grasp of the overall argument of an article rather than just picking a few quotations opportunistically to support their narrow arguments."

"Research is richer and from more variegated sources. Bibliographies are more regular and there is a greater awareness of types of critical literature...There is also the major difference of them knowing these things without my having to schedule class time to tell them."

"They are well versed in the journals in the field, and can get their hands on more abstruse materials than before. They seem to see research as part of the beginning of a process of writing--a way to frame questions--not merely the thing you turn to after you know what you're about."

"I ask more independent thinking of my students with the confidence that they are capable of better USE of research. The ceiling is higher than it used to be."

#### Alumni

Finally, alumni English majors were contacted and asked to reflect upon their experiences within the English major. Out of about one hundred who were contacted, twenty-nine responded with comments. The first question asked them to indicate how well prepared they felt to do research entering their senior workshop. All twenty-nine responded that they were at least "adequately

prepared," though more than 82% said they felt "very well prepared" or "extremely well prepared," as illustrated in Figure 2.

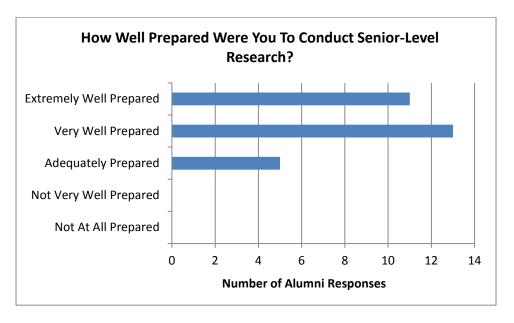


Figure 2 - Alumni Assessment of CALM Lab

Alumni also were asked to comment further on their response to this question. Echoing the sentiments of the currently enrolled students, alumni indicated that their research preparation increased their awareness of resources, encouraged them to start their projects early, and boosted their confidence in their own abilities:

"I wasn't aware of some of the more complicated [research] methods, but the library staff educated me where there were gaps in my knowledge."

"Through our sessions with library staff and our department professors throughout the four years, I felt entirely prepared to take advantage of the print resources and electronic materials and databases offered by the library."

"The best preparation to conduct research for my senior thesis was: sustained and frequent practice opportunities; timely and specific feedback on the quality and relevance of my research from my professors, peers and research librarians; and access to knowledgeable researchers (such as professors and research librarians) who were committed to student achievement."

"We were given assignments that forced us to document the sources that we found and explain why each one was useful to the assignment that we were working on. This was helpful because it allowed us to articulate why certain sources provided the most useful information for us."

"Being taught how to long-term plan for a research assignment and how to locate a variety of sources was extremely important when conducting research for the senior thesis."

Alumni were then asked to comment upon how the research skills they learned as an undergraduate were serving them in current positions. Four alumni lamented that their current jobs did not require such skill, and two cited this lack of challenge as a reason why they were seeking alternative employment. Despite the lack of engagement on the job, one said that she used research skills for personal needs. Other respondents, some of whom were in the work force and some in graduate degree programs, responded enthusiastically to this question:

"Research taught me that throwing one solution at a problem isn't trying hard enough, that there are many ways to achieve a goal and that there are a million people out there that are smarter than I am. These values inform the way I approach teaching. I persist by trying more than one solution, by trying unconventional solutions, and by locating and finding practices that will help my students be successful. I use research to inform my instructional decision-making. I also use research to expose my students to new ideas."

"I suppose you could say that I've learned how to ask the right people the right questions. And I know how important it is to exhaust all sources for information."

"I write for [a company] and incorporating quotes and information into blog posts is essential."

"As a graduate student, I still require those research skills (perhaps even more than ever)!

Compared with many of the other students in my cohort, I am noticeably better trained in research skills because of my status as a Dickinson College English major."

"The skills I learned, especially in the CALM Lab, help me when I am doing research on a new product at work."

## Areas to Improve

The library staff and the English Department's faculty are always looking for ways to improve CALM Lab; indeed students have offered many useful suggestions that have been incorporated, some of which were noted earlier. In recent semesters, we have been discussing ways in which the skills learned in CALM Lab might be better incorporated within each 300-level course. Faculty noted that working on analytic engagement with secondary materials should remain a goal of CALM lab, but that they should also learn "how to historicize sources," and how to continue the process of "relating method to argument." As one faculty member put it: "We want to get them to start thinking like writers--putting the impulse to curiosity and dialogue into the whole major, including CALM Lab." Ideas for how to achieve even deeper integration between CALM Lab and the English classes will be explored in the coming years.

#### Conclusion

The most important elements in developing a program like CALM Lab are planning and assessment. Particularly in times of economic stress, no academic institution will be willing to spend resources on new programs without a plan of action and evidence of accomplishment. Librarians who want to add value to the curriculum through information literacy must develop an attractive plan that answers the demonstrated needs of students, assists faculty members without encroaching on their time or adding to their workload, and fits within the institution's mission and curricular requirements. Influential faculty members who are willing to help should be an integral part of the planning for a program like CALM Lab. Their participation must be validated with a variety of assessment tools so that changes in student behavior will be evident. Faculty who perceive significant improvement in student performance and changes in approach from students who are using information literacy skill sets will

rally to ensure that all of their students have the same opportunities to benefit from additional learning experiences.

By all measures, CALM Lab at Dickinson College is an undeniable success and is well poised to serve students for many years to come. It has now existed for long enough that no student on Dickinson's campus has experienced the English major without it. Any librarian can teach the course since it is managed online. Because it is now a curricular requirement, CALM Lab cannot simply fall by the wayside when faculty members go on sabbatical or with turnover in library staff. Other departments on campus have expressed interest in developing a similar model. Some, such as History and Sociology, also have vigorous information literacy components included consistently in specific courses taken by all majors in each discipline. None, however, have taken the initiative to the extent that English has, making information literacy a separate course that has become a graduation requirement of the major. With CALM Lab advancing as well as it has, librarians at Dickinson are working to develop similar programs across the curriculum.

All assessments point to the CALM Lab's unquestionable value in preparing students for rigorous undergraduate research as well as the demands likely to be placed on them in graduate studies and their professional careers. What makes CALM Lab unique, however, is not the course content or the outcomes. Rather, the fact that a new curricular requirement was created despite significant challenges that others have described as all but insurmountable is what makes CALM Lab a model for academic institutions seeking to instill excellence in research practice across a busy curriculum. Engendered by a need that was perhaps not quite obvious until it was documented, the curricularization of CALM Lab was accomplished without direct intervention by a librarian in the college's governance system. The extraordinary spirit of cooperation among the library staff, the faculty, and the administration, along with a genuine commitment to student success, allowed this program to develop and thrive within the bounds of Dickinson's rigorous standards.

The author may be contacted at bombaroc@dickinson.edu for copies of CALM Lab's course materials, including the most recent syllabus, assignments, rubrics, and readings.

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