abstract: Graduate students across disciplines feel pressure to publish their scholarship, but they are often unsure how to go about it, partly due to a lack of explicit training in this area. This article discusses the collaborative development of a semester-long Publishing Academy, designed to promote knowledge of scholarly publishing and increase the library’s impact within the graduate student community. Demonstrating how librarians can draw on their unique skills to build a niche service addressing unmet needs on campus, the project also puts into practice a broader conception of scholarly publishing literacy, which can be linked to the Association of College and Research Libraries Framework for Information Literacy for Higher Education.

Introduction

While the phrase “publish or perish” has become a cliché in academic circles, it is certainly true that publication remains a key metric of success for scholars in most disciplines. As such, graduate students hoping to obtain tenure-track positions must develop publication skills to compete in a challenging job market. Unfortunately, for many students, there are few opportunities to receive specific training in publication during graduate school. Although graduate students typically carry out research, they may experience anxiety about transforming their research into formal publications, a process that requires its own set of unique skills. Indeed, as Wendy Belcher points out, “Students outside of the sciences receive little training in performing the most important task of their incipient careers: writing for publication.”1 Likewise, Andrea Baruzzi and Theresa Calcagno refer to what they call the “instruction gap” in
graduate education, an ongoing disconnect between the professional expectations for graduate students—particularly the expectation to publish—and the frequent lack of training to help them meet these expectations. This gap presents a significant opportunity for libraries interested in not only enhancing their support for graduate students but also demonstrating their value in relation to scholarly productivity.

Recognizing this opportunity, librarians in the Research Assistance and Instruction department of the William F. Ekstrom Library at the University of Louisville in Kentucky collaborated with the university’s School of Interdisciplinary and Graduate Studies (SIGS) and other campus partners to develop, implement, and assess a new Publishing Academy for graduate students. The inaugural academy consisted of five workshops focusing on various aspects of scholarly writing and publishing, including such topics as developing proposals, selecting publication venues, responding to peer review, negotiating licenses, and evaluating impact. Librarians designed the curriculum for the academy, including a sequence of homework assignments that enabled students to craft individualized publishing plans by the end of the semester. The SIGS associate director for graduate student professional development, the holder of the Evelyn J. Schneider Endowed Chair for Scholarly Communication, the director of the University Writing Center, and new and experienced faculty researchers from several academic departments also provided support by leading workshops or assisting with planning. As targeted outreach to graduate students across disciplines, the Publishing Academy shows how libraries can address unmet needs through niche services that take advantage of strategic partnerships, as well as the unique skills of different experts.

From a larger perspective, the Publishing Academy exemplifies burgeoning efforts among librarians to promote scholarly publishing literacy. Inspired by the work of Jeffrey Beall, Linlin Zhao describes this concept as the nexus between information literacy and digital scholarship, asserting that the open access movement has created a need for librarians to help faculty understand the complexities of the digital publishing environment. Zhao is primarily interested in issues surrounding open access and predatory publishing, an exploitative practice that involves charging publication fees to authors without providing legitimate editorial and publishing services. Nevertheless, the concept of scholarly publishing literacy might also encompass broader training initiatives aimed at fostering knowledge and awareness of various aspects of academic publishing, including but not limited to open access. Such initiatives are consistent with the language of the Framework for Information...
tion Literacy for Higher Education, recently adopted by the Association of College and Research Libraries (ACRL). According to the Framework, students are increasingly engaged in “creating new knowledge” and navigating “the contours and the changing dynamics of the world of information.” Graduate students, more than the majority of undergraduates, must learn to create new knowledge, with the assumption that they will eventually publish their work. In this respect, graduate students need information literacy instruction that addresses the dissemination of knowledge through publication, whether in digital or print form.

Moreover, the Framework calls on librarians to educate students in several areas that have a direct relationship with publishing, particularly in regard to three of the six threshold concepts or “frames” defined in the document: “Information Creation as Process,” “Information Has Value,” and “Scholarship as Conversation.” Table 1 shows how knowledge practices listed in the Framework and associated with these three threshold concepts might provide a foundation for instructional endeavors focusing on scholarly publishing literacy. The University of Louisville Publishing Academy puts the Framework into practice at an advanced level and, in so doing, helps graduate students “see themselves as contributors to scholarship rather than only consumers of it.” This paper contextualizes the Publishing Academy within the literature on professional skills programming for graduate students, describes the collaborative planning and implementation process, and reports initial assessment results that will inform future iterations of the academy.

### Literature Review

Prior literature reviews indicate that librarians have developed a wide selection of classes, workshops, and instructional content for graduate students. According to Baruzzi and Calcagno, library classes for graduate students typically focus on professional skills such as conducting literature reviews; often occur in a discipline-specific context; and are frequently collaborative in nature, involving partnerships among libraries, academic departments, and other campus groups. Baruzzi and Calcagno also note that many academic libraries have developed services focusing on different aspects of scholarly publishing (for example, copyright and open access), and they assert that such services can present opportunities for targeted outreach to graduate students. Nevertheless, their online survey (N = 337) investigating the kinds of instructional services that academic librarians provide for graduate students shows that just 18 percent of responding librarians offer workshops “about the publication process.” Baruzzi and Calcagno argue that librarians should utilize their own publishing expertise to develop new classes for graduate students and seek collaborative opportunities across campus to enhance their services.

In a report developed for the Association of Research Libraries (ARL), Lucinda Covert-Vail and Scott Collard advocate for the development of “communities of support” to enhance graduate education and prepare future scholars for a competitive economic
# Table 1.
Mapping the ACRL Framework to topics in scholarly publishing literacy

<table>
<thead>
<tr>
<th>Threshold concept or “frame”</th>
<th>Relevant knowledge practices</th>
<th>Related publishing topics</th>
</tr>
</thead>
</table>
| Information Creation as Process | • Articulate the traditional and emerging processes of information creation and dissemination in a particular discipline.  
• Monitor the value that is placed upon different types of information products in varying contexts. | • Selecting a publication venue; responding to peer review.  
• Evaluating scholarly impact (bibliometrics and altmetrics). |
| Information Has Value | • Articulate the purpose and distinguishing characteristics of copyright, fair use, open access, and the public domain.  
• Decide where and how their information is published. | • Understanding copyright and fair use; considering open access options.  
• Selecting a publication venue; negotiating authors’ rights. |
| Scholarship as Conversation | • Contribute to the scholarly conversation at an appropriate level.  
• Identify barriers to entering scholarly conversation via various venues. | • Writing for publication; developing proposals.  
• Working with publishers; selecting a publication venue; responding to peer review. |
Samantha McClellan, Robert Detmering, George Martinez, and Anna Marie Johnson

The library literature describes numerous examples of classes and programs, often developed through collaboration with campus organizations and departments outside the library, that teach specific professional skills to graduate students as well as faculty. Areas of emphasis include literature reviews, thesis and dissertation research and writing, grant funding resources, altmetrics (nontraditional metrics proposed as an alternative to traditional citation metrics, such as impact factor), and data management. Although librarians offer course-integrated information literacy and professional skills instruction at the graduate level, the present review focuses on stand-alone workshops, workshop series, or other extracurricular programming. This type of programming, which is voluntary and not integrated into the grading or assessment process for a credit course, is most comparable to the University of Louisville Publishing Academy. A content analysis of publications describing such programs indicates that several libraries provide services addressing certain aspects of scholarly publishing, though none of these appear to be structured as interdisciplinary academies focusing exclusively on publishing issues. Unsurprisingly, most library programs dealing with publishing have been developed at PhD-granting research institutions, where publishing is an important concern for both graduate students and faculty. Of the extracurricular programs discussed in the literature, the majority target graduate students across disciplines, though Donna O’Malley and Frances Delwiche describe a “Funding to Publication” workshop series primarily designed for graduate students in the sciences. Table 2 summarizes key examples of professional skills programming for graduate students that are most comparable to the University of Louisville Publishing Academy, with only two programs offered solely to graduate students: the Graduate Library User Education series at the Georgia Institute of Technology in Atlanta and the Data Management Workshop series at the University of Minnesota in Minneapolis. Although it might be argued that the needs

The lack of programming tailored to graduate students as a unique group with particular needs may suggest a potential growth area for libraries.
of graduate students and faculty are closely aligned, the lack of programming tailored
to graduate students as a unique group with particular needs may suggest a potential
growth area for libraries.

The publishing-related services offered by libraries reflect diverse approaches and
a wide variety of campus partnerships. Merinda Kaye Hensley describes the Scholarly
Commons at the University of Illinois at Urbana-Champaign, a collaborative service
model offering assistance and instruction to graduate students and faculty in such areas
as data management, scholarly communication, and publishing. Librarians work with
various campus partners, including the Graduate College, to provide workshops on
citation management, publishing agreements, grant funding, and other topics. Hensley
highlights the integral role of collaboration in the Scholarly Commons, arguing that such
efforts “deeply enhance library and campus services provided to a cross-disciplinary
learning environment.”

Brenna Helmstutler discusses the Scholarly Impact Outreach program at Georgia State University in Atlanta, which provides training in citation
metrics and other impact data to faculty and graduate students across disciplines.

While pointing to the importance of this training for graduate students who move on
to tenure-track academic positions, Helmstutler also states that workshop attendance
has been low, perhaps because students and faculty do not understand the relevance of
the content. Lori Critz, Mary Axford, William Baer, Chris Doty, Heidi Lowe, and Crystal
Renfro explain how the Faculty Engagement Department at the Georgia Institute of
Technology Library developed a variety of stand-alone workshops for graduate students
under the heading of Graduate Library User Education (GLUE). Targeted to graduate
students across disciplines, workshops in this program provide instruction in writing
and researching literature reviews, using citation management software, submitting
articles for publication, creating poster presentations, and other skills. Librarians work
with the Graduate Student Government Association to promote the GLUE program,
which also partners with other campus organizations to offer a Graduate Communica-

One of the few examples in the literature that emphasizes detailed instruction in the
publishing process itself is Jennifer Knievel’s profile of a well-received online publish-
ing tutorial created by librarians at the University of Colorado in Denver. Consisting
of five modules, the tutorial teaches junior faculty and graduate students about idea
generation, manuscript preparation, journal selection, open access, and other publish-
ing topics. Given the expectations and anxieties surrounding publication in academia,
as well as the frequent lack of instruction for junior faculty and graduate students in
this area, Knievel argues that the need to publish presents an opportunity to cultivate
advanced information literacy skills. She maintains that librarians are uniquely suited for
this task because they are typically “disciplinary generalists.” O’Malley and Delwiche
describe a workshop on scholarly publishing taught by a librarian and a microbiology
professor and offered as part of the “Funding to Publication” series at the University of
Vermont in Burlington. Finally, Diane Gurman and Marta Brunner discuss an Open
Access Week event hosted by the library at the University of California, Los Angeles,
which addressed the viability of publishing a book based on a dissertation that is already
freely available in an online repository. In this case, the program featured a panel of
university and trade press editors, rather than librarians.
Table 2.
Selected professional skills programming for graduate students

<table>
<thead>
<tr>
<th>Institution</th>
<th>Format</th>
<th>Audience</th>
<th>Key topics</th>
<th>Assessment</th>
<th>Partnerships</th>
<th>Year started</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publishing Tutorial</strong>&lt;sup&gt;+&lt;/sup&gt;</td>
<td>University of Colorado, Denver</td>
<td>Online tutorial with five modules</td>
<td>Graduate students and faculty across disciplines</td>
<td>Idea generation for publication; manuscript preparation and submission; peer review; publishing plan development</td>
<td>User feedback survey</td>
<td>Center for Innovations in Training Technology</td>
</tr>
<tr>
<td><strong>Grant Funding Workshop</strong>&lt;sup&gt;†&lt;/sup&gt;</td>
<td>University of Minnesota, Minneapolis</td>
<td>Stand-alone workshops</td>
<td>Graduate students, faculty, and staff across disciplines</td>
<td>Tools for finding external grants and intramural funding resources</td>
<td>Post-workshop evaluation form</td>
<td>Office of the Vice President for Research</td>
</tr>
<tr>
<td><strong>Scholarly Commons Workshops</strong>&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>University of Illinois at Urbana-Champaign</td>
<td>Stand-alone workshops</td>
<td>Graduate students and faculty across disciplines</td>
<td>Literature reviews; data management; citation management; poster creation; bibliometrics; job searching; scholarly communications; copyright; technology in teaching and research</td>
<td>Workshop assessment methods not stated</td>
<td>Numerous partners, including the Graduate College and Campus Information Technologies and Educational Services Academic Technology Services</td>
</tr>
<tr>
<td>Institution</td>
<td>Format</td>
<td>Audience</td>
<td>Key topics</td>
<td>Assessment</td>
<td>Partnerships</td>
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</tr>
<tr>
<td>Graduate Library User Education§</td>
<td>Georgia Institute of Technology, Atlanta</td>
<td>Stand-alone workshops</td>
<td>Graduate students across disciplines</td>
<td>Journal submissions; citation management; plagiarism; literature reviews; Web design; time management; poster presentations; data and statistics</td>
<td>Graduate Student, Government Association, Library/Faculty Advisory Board, Center for Enhancement of Teaching and Learning</td>
<td>2010</td>
</tr>
<tr>
<td>Funding to Publication Workshop Series#</td>
<td>University of Vermont, Burlington</td>
<td>Seven interrelated workshops</td>
<td>Graduate students, faculty, and staff in the sciences</td>
<td>Literature searching; citation management; poster creation; scholarly publishing; copyright; external funding</td>
<td>Pre-, midpoint, and post-surveys focusing primarily on perception of value for the participants</td>
<td>2010</td>
</tr>
<tr>
<td>Data Management Workshop Series**</td>
<td>University of Minnesota, Minneapolis</td>
<td>Started as online course; turned into a five-session workshop series</td>
<td>Graduate students across disciplines</td>
<td>Data management</td>
<td>Microbiology professor, medical photographer, and grant resources specialist</td>
<td>2012</td>
</tr>
<tr>
<td>Scholarly Impact Outreach Program††</td>
<td>Georgia State University, Atlanta</td>
<td>Stand-alone workshops; online guide</td>
<td>Graduate students and faculty across disciplines</td>
<td>Data tools for measuring scholarly impact</td>
<td>Post-workshop satisfaction survey; online guide page views</td>
<td>2013</td>
</tr>
</tbody>
</table>
As indicated in Table 2, formal assessment of voluntary professional skills programming for graduate students has been minimal, with virtually no empirical data on student learning reported in the literature. Assessment methods generally consist of feedback surveys where participants self-report on the quality of the experience and its value for them. The results of these opinion-based surveys are usually very positive, but it remains a challenge to develop methods of measuring actual student learning in this context. O’Malley and Delwiche discuss the use of one survey question to evaluate student learning in a literature searching workshop, reporting a positive outcome, while Lisa Johnston and Jon Jeffryes explain how minute papers and an optional data management plan assignment were incorporated into the Data Management Workshop series.27 However, in both of these examples, full assessment data are not reported. The lack of rigorous assessment of the various programs described in the literature speaks to the inherent difficulties in evaluating learning in voluntary programs, where students are already pressed for time and may be unwilling to complete additional assignments.

Ultimately, the literature on library services for graduate students reveals a relatively limited focus on scholarly publishing literacy, an area in which “academic librarians are well-positioned to claim a proactive role” because of their knowledge of bibliometrics (statistical analysis of written publications, such as books or articles), copyright, open access, and related issues.28 The provision or facilitation of instruction specifically for graduate students on scholarly publishing represents an important potential growth area for academic libraries. The University of Louisville Publishing Academy offers a compelling example of how librarians can work proactively and collaboratively in this area, promoting scholarly publishing literacy within a graduate student population that has a particular need for such training. Furthermore, as a series of interrelated workshops, the Publishing Academy provides a more structured and richer experience than stand-alone workshops and encourages greater buy-in and attendance.

Planning the Publishing Academy

For many years, the library’s Research Assistance and Instruction department has provided one-shot information literacy sessions for graduate courses in a number of departments, along with regular workshops in citation management software targeted to graduate students. Other specialized workshops focusing on database searching have also been offered on occasion, but attendance has been too low to merit continuation. In 2012, two librarians in Research Assistance and Instruction approached the School of Interdisciplinary and Graduate Studies (SIGS) in an effort to participate in the existing interdisciplinary PLAN workshops to leverage their audience base of graduate students. Incorporating professional development (P), life skills (L), academic development (A), and networking (N), the PLAN series has focused on time management, the academic job search, the institutional review board process, and many other topics. SIGS began
offering these professional development PLAN workshops and one academy in 2008. The professional development program has grown to encompass four academies and 40 to 60 workshops, learning communities, program tracks, online modules, and one-on-one consultations. Approximately 400 graduate students participate each year in these offerings. In collaboration with the SIGS associate director for graduate student professional development, the librarians created two new PLAN workshops: one on incorporating information literacy concepts into teaching and the other on advanced literature searching. By participating in PLAN, librarians had access to a built-in audience and an established marketing process, and SIGS staff facilitated the assessment process by creating workshop evaluations and compiling student responses. The workshops were well-received and continued to be offered approximately every other semester for several years.

Throughout 2015, a series of questions from new faculty and graduate students about finding good journals in which to publish prompted some brainstorming in the Research Assistance and Instruction department. Based on anecdotal experience, as well as the literature on gaps in publishing education for graduate students, the authors identified an opportunity to share their experience as disciplinary generalists with knowledge of copyright, open access, citation metrics, and other aspects of scholarly publishing. Due to the successful ongoing relationship with SIGS, three of the authors proposed a new PLAN workshop on publishing. Given the importance and potential depth of this topic, the SIGS associate director for professional development suggested a more extensive, multi-session “academy,” similar to other academies already offered by SIGS on grant writing, teaching, and entrepreneurship. The associate director asked the authors to develop this new Publishing Academy for the spring 2016 semester, affording them wide latitude to design the curriculum and craft other elements of the academy. Subsequently, the authors worked to create the general outline of the academy, with the associate director providing guidance on the structure, along with planning and marketing materials. Required documents included a description of the academy used for promotional flyers; a document enumerating learning outcomes and student responsibilities; the titles and descriptions of individual sessions; and an application form for students. Individual sessions would take place during five two-hour blocks spread throughout the semester, modeled after the other existing academies.

With the skeleton of the Publishing Academy in place, the authors began work on the curriculum, including which topics would be covered, the depth to which each would be addressed, and in what order. This planning was a difficult process because the students’ prior publishing experience was unknown, and students from all disciplines would potentially participate. In the end, the authors established the following sequence: publication value, citation metrics, and altmetrics (session one); copyright, negotiating publishing licenses, and open access (session two); advice from tenured faculty (session three); specific strategies for writing for publication (session four); and advice from tenure-track faculty (session five). This sequence was decided upon because the authors viewed certain content, such as journal selection, impact metrics, and copyright, as foundational to scholarly publishing literacy.
authors viewed certain content, such as journal selection, impact metrics, and copyright, as foundational to scholarly publishing literacy, providing context for the later sessions. Regarding the two faculty panels, the authors felt that students would benefit from advice not only from experienced faculty but also from faculty currently working toward tenure. This content was codified in a document providing session descriptions, along with engaging titles employing popular culture wordplay (see Appendix A).

One of the unique aspects of the SIGS academies is that students must apply to participate. This is largely due to the fact that students receive a Certificate of Achievement from SIGS if they participate in four of the five sessions of any one PLAN academy, a curriculum vitae builder and an incentive for participation. Consequently, the authors had to decide how many students to accept and what to ask on the application form. With a predetermined template provided by SIGS, the authors added two key questions to the form relevant to the Publishing Academy: the first, to ascertain whether the applicant was enrolled in a masters or PhD program; the second, to determine if the applicant was writing a thesis or dissertation. An open-ended question about previous publication experience was also included. All students who applied (N = 31) were accepted to the Publishing Academy. The SIGS associate director for professional development recommended the authors accept all students on the basis that this was logistically feasible and that a new academy could benefit from word-of-mouth promotion for its future iterations. While all 31 were accepted, 23 students attended the first session. Figure 1 reflects the number of students who persisted in at least four of the five sessions to receive professional development credit from SIGS (n = 18). Of these 18, 14 were PhD students and 3 were seeking their master’s degree; an additional student was at the postdoctoral
level. Two graduate student applicants did not continue with the program because of scheduling conflicts; data are not available to account for other instances of attrition.

Upon finalizing the content of the academy, the planners decided that, while there would be no formal summative assessment of learning for the inaugural iteration, students would complete a series of scaffolded homework assignments, providing successive levels of temporary support to move them toward greater independence, culminating in the creation of an individualized publishing plan by the end of the academy (see Appendix B). The scaffolded assignments were designed as a way for students to reflect on their own progress, where each homework assignment of the capstone or culminating project mirrored the topics of the five sessions. The assignments prompted students to apply the information to their own contexts and also served as a platform to begin each session with a discussion about the homework. While the authors conceded that this individualized publishing plan may not be ideal because some students may not have reached the point of authoring and submitting a manuscript for publication, the capstone provided a method by which students could identify their own knowledge gaps.

With the structure of the academy in place, the authors finalized the planning process by reaching out to campus partners for three of the sessions. The authors solicited help from the holder of the Endowed Chair for Scholarly Communication for the second session, focusing on copyright, open access, and license negotiation. The director of the University Writing Center agreed to teach the fourth session, covering writing for publication. Lastly, tenured and tenure-track faculty members served as panelists for the third and fifth sessions, respectively. This last part proved the most difficult; the panelists had to be faculty who had substantial records of publication, ideally who had also served as editors, and who would be engaging speakers. Because there was no funding specifically for the inaugural academy, the authors relied on established relationships to recruit faculty members as speakers for the first panel. The disciplines of the Publishing Academy’s participants were also considered in this outreach effort. These faculty members came from education, electrical and computer engineering, English, and political science. Three had experience as book or journal editors. The authors also sought four faculty members for participation in the tenure-track faculty panel, harnessing existing relationships as well as identifying faculty with whom they had not previously worked but who had strong publishing records. The tenure-track panel consisted of faculty in bioengineering, criminal justice, health and sport sciences, and social work.

Implementing the Academy

The authors utilized the Blackboard learning management system to facilitate communication with enrolled students beyond the classroom sessions. The graduate students in the academy came from a variety of academic disciplines and did not necessarily know one another beforehand. Thus, Blackboard helped create an online community that could be bridged into the classroom. Blackboard also served as a practical tool to make announcements and a place for graduate students to turn in their publishing plan assignments. The authors also periodically uploaded relevant resources such as presentation slides, website links, and supplemental readings.
The first session began with a pretest, which consisted of nine scholarly publishing literacy measures to be covered over the course of the academy (see Table 3). The pretest asked students to self-assess their familiarity with those measures on a Likert scale of 1 to 5 that allowed them to express how much they agreed or disagreed with a particular statement. The following qualitative questions were included in the pretest: (1) Do you have any publications? If so, in what venues have you published? and (2) What do you hope to get out of the Publishing Academy? The goals of this pre-assessment were to benefit both the graduate students and the authors: first, it would allow students to see topics covered throughout the academy and think through their familiarity with the areas of study; second, it would allow the authors to identify strategic areas of focus for the rest of the academy as well as assess prior experience in publication.

During the first session, the authors addressed how citation metrics relate to evaluating the quality and appropriateness of a journal when identifying potential publication venues. The authors started with the origin of bibliometrics in the print world and how that has evolved with technology. Next, the authors introduced students to various measures of impact, including the type of publication, journal reputation, author recognition, and institutional influence. When discussing metrics, the authors reviewed how Journal Citation Reports, an annual publication of Thomson Reuters, measures the immediacy index, the average number of times an article is cited in the year it is published; cited half-life, the median age of a journal’s articles cited in a year; and Eigenfactor®, a rating of the total importance of a scientific journal. The session also addressed tools growing in popularity such as Google Scholar Metrics, which uses $h$-indices, measurements based on a scholar’s most cited papers and the number of citations he or she has received in other publications. Finally, the authors discussed altmetrics and the relationship between scholarship and online social networks, including such platforms as ResearchGate and Academia.edu. Robin Chin Roemer and Rachel Borchardt’s book Meaningful Metrics: A 21st-Century Librarian’s Guide to Bibliometrics, Altmetrics, and Research Impact became an especially useful resource for this session.

In the next session, the library’s Endowed Chair for Scholarly Communication spoke about current issues in scholarly publishing and how graduate students can navigate the legal side of the publishing process. He reviewed the option of open access publishing, which has the potential to give authors more control over their publications and makes their work accessible to a larger audience. He also discussed copyright, its strengths and limitations, and the potential benefits to license negotiation, the most notable of which is retaining some or all copyright as an author. The Endowed Chair also explained protections associated with copyright law and how other forms of information, such as ideas, cannot be copyrighted. He addressed how copyright is often dictated by each academic institution’s intellectual property rules. The Endowed Chair closed his session by sharing a sample publication contract and emphasizing that authors have a say in copyright terms, as well as where and how their work is published, highlighting that it is often expected that authors will negotiate copyright terms.

Four tenured faculty members led the third session, the first of the faculty panels. The panelists shared their experience in publishing and described their time serving as editors and reviewers for academic journals. Graduate students were requested to submit questions to the panel, but they did not always know what to ask. While this lack
of questions could be due to the overwhelming amount of information covered in the academy, it could also be attributed to the graduate students’ limited scholarly publishing literacy and interpreted as an instantiation of “you don’t know what you don’t know,” which the authors felt affirmed the need for the Publishing Academy. To supplement, the authors intermittently asked questions of the faculty that directed the conversation around how to select publication venues, respond to peer review feedback, evaluate the reputation of a publication, and identify metrics that are valued in their respective fields. Ultimately, the panelists gave insight regarding the length of the publication process and the importance of being meticulous when meeting journal submission requirements. They also discussed their experiences with converting dissertations and other research into publishable material. After the panel, the authors met individually with graduate students to discuss any lingering questions regarding Publishing Academy topics and the publishing process as it applies to their particular disciplines.

The director of the University Writing Center discussed strategies for writing for publication during the fourth session. He explained the importance of knowing one’s audience and researching the editorial board for the publication where you plan to submit your work. Echoing the third session’s tenured panelists, he reiterated the importance of following submission guidelines so reviewers do not have a simple logistical reason to reject a submission. In terms of writing an article itself, he recommended maintaining a clear focus while not going into depth about information that is already well-known. When dealing with peer review feedback, he recognized the probability of an emotional response and suggested that writers move on as soon as possible to the most useful comments that can improve a manuscript. When transforming a dissertation into a book, he advocated evaluating the dissertation to see if there is enough material to warrant a book and defining a clear narrative arc. Some general writing tips he suggested involved removing distractions, soliciting feedback during the writing process, and finding a community that can foster accountability throughout the writing process.

The final session involved the panel of tenure-track faculty members. The question-and-answer portion of this session was altered slightly in that the authors asked panelists predetermined questions related to the topics discussed throughout the academy to encourage the faculty to immediately address topics in scholarly publishing literacy. The authors anticipated that this change would allow graduate students time to attribute the relevance of scholarly publishing literacy to their own experiences and give them space to formulate their own questions without feeling pressure. Similar to their tenured colleagues, these less-experienced faculty members discussed how they translated their dissertation work into publishable material and how they selected publication venues. Faculty members also described challenges they faced while pursuing tenure, a discussion that resonated with a group of academic hopefuls. In particular, they stressed the challenge of balancing teaching, research, and publishing. They also illuminated how collaborating with faculty members from outside their disciplines has been a beneficial way to expand their network and publish in a wider variety of journals. After the final panel session, the authors had individual meetings with graduate students to discuss their experience with the academy and their publishing goals. The first iteration of the Publishing Academy concluded with a posttest, again asking students to self-assess their familiarity with the nine scholarly publishing literacy measures in addition to answering the following qualitative questions:
1. Do you have any planned publications after attending the Publishing Academy? If so, in what venues do you wish to submit?
2. Do you feel the Publishing Academy was helpful in preparing you for publication? If so, how?
3. What were the most helpful aspects of the Publishing Academy?

The answers to these questions allowed the authors to evaluate students’ growth via their self-assessments and identify any topics in scholarly publishing that may not have been covered adequately or that should be amended or omitted for future iterations of the academy.

**Assessing the Academy**

Assessment of the Publishing Academy consisted of a pretest at the start of the first session regarding students’ familiarity with nine scholarly publishing literacy measures that were addressed over the course of the academy. A posttest was conducted at the end of the fifth and final session to measure growth in students’ self-perceived familiarity with the nine measures. Several qualitative questions accompanied each test. The rationale behind a brief pretest and posttest was similar to that of the scaffolded, individualized publishing plan in that the authors opted to use assessment methods that would increase the likelihood of the graduate students completing the assessments. This was also the reason that the pretest and posttests were conducted in the classroom—to obtain data from all in attendance. While self-assessments can result in an overestimation of information literacy proficiency, self-assessment is the most consistent with programming of this type based on the relevant literature (see Table 2).

With the pretest and posttest assessment tool, Table 3 shows the nine scholarly publishing literacy areas quantitatively measured, as well as the average familiarity both before and after the Publishing Academy, based on a Likert scale ranging from 1 (“Unfamiliar”) to 5 (“Very familiar”). Two students documented in Table 3 were absent for the final session, resulting in only 16 students taking the posttest.

The quantitative data serve as evidence that the inaugural cohort exhibited substantial growth in perceived familiarity and self-confidence in a variety of scholarly publishing literacy measures. Given the existing literature on self-assessments, as well as pretests and posttests involving teaching interventions, this change in perception is not surprising. With a teaching intervention—the Publishing Academy—that spanned the course of a semester, the results show growth in all nine areas, even those in which students were already moderately familiar. The three areas with which students expressed the least confidence were negotiating a licensing agreement, understanding how citation metrics are generated, and, relatedly, understanding how altmetrics are generated. With pretest averages of 1.57 and 1.30, respectively, students
had little familiarity with the purpose, value, and creation of both traditional citation metrics and altmetrics. With the continued relevance of citation metrics in the social sciences and STEM (science, technology, engineering, and mathematics) disciplines and the increasing impact of altmetrics in an expanding digital landscape, a basic understanding of these measures needs to be a facet of scholarly publishing literacy if graduate students are to become informed scholars. Given these low levels of familiarity in the pretest, the first session focused heavily on identifying top journals in a variety of fields and how that process can vary based on discipline, with citation metrics and altmetrics forming a large component of that discussion. This topic also seemed especially relevant given the number of social sciences and engineering graduate students enrolled. With posttest scores of 3.75 and 3.44, respectively, and witnessing the development of students’ questions during faculty panels, the authors felt successful in increasing their level of understanding in these two related areas.

Partnering with the Endowed Chair for Scholarly Communication allowed us to harness his subject expertise to raise the graduate students’ familiarity with negotiating a licensing agreement, with scores increasing from 1.18 to 2.94. While copyright and open access basics appeared at least moderately familiar to students, they knew little about their ability to negotiate the publishing agreement. With the session content designed to be both informative and empowering, the posttest score did improve but remained below the level of familiarity that the authors hoped. Reflecting on this learn-
ing outcome and the session itself, the authors speculate that it may have been too lofty a goal. Hoping for students to simply become familiar with copyright and the licensing process may have been more reasonable, rather than expecting them to report a level of familiarity with how to negotiate a license, something that the authors conceded was difficult even for them.

Responding to pretest qualitative questions answered by the students during the first session, eight students reported having prior publishing experience in a variety of journals, and one reported publications in both journals and encyclopedias. Twenty of the 23 students responded to the question regarding what they hoped to get out of the academy, which were categorized thematically based on their content. While two students reported explicitly hoping to focus on top journals in their respective fields, along with impact, 18 of the other students’ comments were categorized as “foundational,” meaning their responses encompassed most or all of the nine areas of scholarly publishing literacy that were quantitatively measured during the pretest and posttest. While responding to the pretest quantitative measures prior to the qualitative questions may have influenced their responses, the authors felt confident that with their own knowledge of publishing, these were indeed the areas with which students needed to become familiar in order to successfully disseminate their own knowledge and engage in the academic publication process. With these responses in hand after the first session, the authors saw that a majority of students had some experience in transforming research into publications. This information also confirmed the authors’ initial thought that citation metrics and journal selection were pivotal to fostering the graduate students’ scholarly publishing literacy.

In response to the posttest qualitative comments, it is important to note that 18 students remained enrolled by the time the fifth session commenced, which is reflected in Table 3. Of the 16 that participated in the posttest, 10 students reported having planned publications, with several more expecting to develop plans for future publications. Students noted that the most helpful aspect of the academy was the inclusion of faculty panels, which informed students of the scholars’ own experiences, successes, and failures, and fostered an open dialogue. One student reported that hearing people who have “been there, done that” was helpful. Another student specifically called to mind the second session, stating, “I thought the session on negotiating copyright was very helpful because I didn’t even have an idea that that was something authors were allowed to do.” Equally important is that 15 students responded to the question as to whether the session was helpful, all of whom reported something similar to one individual’s response: “Yes! It really helped me a) make me feel not so alone b) and provided me insight into the whole process.” All comments echoed this individual’s sentiment expressing a sense of community, something called for in Covert-Vail and Collard’s report. The comments also validate the existence of publishing-related anxiety, as noted by Belcher.31 That said, this particular student felt comforted that the Publishing Academy provided strategies to approach
the publication process. Overall, these posttest responses reflect a renewed effort on the part of the students to focus on publications during their graduate education, and substantiated the authors’ assumption that the practical advice panels from experts would be a successful way in which to make the abstractions of scholarly publishing literacy into concrete examples.

Future Considerations

As instructors, the authors strive to be reflective and iterative about the teaching process. While the quantitative data exhibited overall growth, the pretest and posttest qualitative comments, as well as their own personal narratives and discussions after each session, have more strongly informed goals for future iterations of the Publishing Academy. This intentional reflection was put into action for the spring 2017 Publishing Academy. The resulting goals were largely logistical in nature. Although the authors felt successful due to student pretest and posttest data demonstrating noticeable growth in the nine scholarly publishing literacy measures, they also identified four lingering areas for improvement: (1) increase student engagement and create a sense of community from the initial session; (2) increase the presence of the publishing plan capstone; (3) refine the assessment methods utilized; and (4) make the Publishing Academy a sustainable endeavor.

Goal 1: Increase Engagement and Community

The first goal for future iterations of the Publishing Academy is to increase student engagement and create a sense of community from the beginning of the first session through the end of the final session of the academy. Recurring feedback was that the academy was not tailored enough to students’ disciplines, which ranged from English to engineering. In response, the authors saw two ways to achieve these goals for the 2017 Publishing Academy: first, by rearranging the sessions; second, by decreasing cohort size to maximize engagement and foster “communities of support.”32 The faculty panels were extremely well-liked by the students and allowed them to ask questions of practitioners that they considered subject-matter experts. There was a level of engagement in those sessions that the authors wished had been developed from the commencement of the academy. While the authors initially designed the first session to set the content foundation for the rest of the academy, it was difficult for students to see journal selection, impact factor, and related topics in connection with the academy as a whole. Therefore, while engagement was later built into the academy, the initial session had low energy and may have influenced the tone of the rest of the sessions. Thus, the first way to build engagement from the first session was to move one of the faculty panels to that session. The second way by which the authors intended to increase engagement and create a sense of community was to keep the cohort size smaller to foster one-on-one time between the librarians and the graduate students; this was with the goal in mind of creating more open dialogue and using that conversation to plan sessions according to the needs the students report. To put this into action, the authors limited the size of the spring 2017 Publishing Academy to no more than 24 graduate students. The authors then further divided the class into smaller groups of no more than six students per librar-
ian for homework discussion and other group exercises. The authors organized these smaller groups around disciplinary clusters, for example, humanities, STEM, and social sciences. By limiting the number of participants, and further dividing these students into smaller, more discipline-focused groups for discussion with an assigned librarian, the authors fostered a more cohesive sense of community and a better understanding of the students’ individual goals.

Goal 2: Highlight the Publishing Plan Capstone

The homework assigned for each session was designed to inform and culminate in a capstone project, development of an individualized publishing plan. However, session content, guest speakers, and the authors’ own inexperience with teaching an academy pushed the publishing plan to the “bottom of the pile.” Though the session-to-session assignments appeared beneficial as a way to identify knowledge gaps, there was no concerted effort to make time for one-on-one discussion. In light of time constraints, only class discussion was possible, and though such discussion allowed for troublesome facets of scholarly publishing literacy to be addressed, it did not allow for the one-on-one, discipline-specific consultation for which the authors had originally planned. With these caveats in mind, the authors moved the homework to the forefront of each session in the spring 2017 Publishing Academy. They allocated the first 15 minutes of sessions two through five to discussion of the homework in small groups, assigning a librarian to a group of no more than six students with a disciplinary focus. A librarian led a small group discussion in the first 15 minutes within each disciplinary cluster to talk about takeaways, challenges, and lingering questions. This structure allowed for more individualized learning opportunities and also increased student investment in the Publishing Academy. It was another way to increase engagement and a sense of community while also addressing any issues related to disciplinary diversity in the generalized Publishing Academy.

Goal 3: Refine Assessment

For the spring 2017 Publishing Academy, the authors sought to refine their assessment methods to better evaluate the scholarly publishing literacy measures taught throughout the five sessions. The pretest and posttest served not only to show knowledge gaps and growth among the enumerated learning objectives, but also to assess the potential validity and relevance of the learning objectives. Though the graduate students reported increased familiarity with developing and revising a manuscript (see items 5 and 6 in Table 3), arguably, the only way to become truly familiar with such a learning objective is by practice, something beyond the current scope of the Publishing Academy. The same can also be said for negotiating a licensing agreement (see item 7 in Table 3). To
develop a more appropriate assessment tool, the authors refined the language of these more abstract learning objectives in a manner that showed participants were learning about these concepts and the scholarly conversation surrounding them. The spring 2017 Publishing Academy also featured a follow-up survey at the end of the semester to inquire whether and how the graduate students have utilized these scholarly publishing literacy practices in academic research pursuits.

The authors also sought to advance their assessment tools in such a way that they align with the ACRL Framework. Though the ACRL Framework undoubtedly influenced the conversations, goals, and approach to teaching the Publishing Academy, they were not codified in any way that reflected an interest in having students leave the academy feeling comfortable and competent in navigating the publishing landscape through their own creation and dissemination of new knowledge. Table 1 shows how scholarly publishing literacy maps to the ACRL Framework, specifically in regard to the three threshold concepts of “Information Creation as Process,” “Information has Value,” and “Scholarship as Conversation.” If the goal is for these to come through explicitly in students’ learning, they should be codified into assessment measures.

Goal 4: Create a Sustainable Publishing Academy

Finally, and unsurprisingly, the authors are searching for answers on the issue that vexes instruction librarians everywhere: sustainability. The inaugural Publishing Academy required four librarians to plan, coordinate, and implement, and it was largely feasible due to the size of the Research Assistance and Instruction department (eight librarians and three staff members as of spring 2016), as well as the ability to divide the labor of developing the Publishing Academy among four librarians. The future of the academy will largely depend on the ability of a group of librarians to continue such programming while also possessing a level of interdisciplinary expertise to address the variety of graduate student participants. In addition to these staffing considerations, questions about the future of the academy include the following: How often will the academy be taught? Will new faculty panelists be invited every year? Should specific student populations be targeted, such as teaching scholarly publishing literacy skills by discipline? While these cannot be answered immediately, the authors have used their experience in the pilot Publishing Academy to inform their thoughts on planning the spring 2017 iteration of the academy. They have also invited a newly hired STEM librarian into the development process so that future graduate student applicants in any STEM discipline can have an appropriate librarian assigned to their cluster for the homework group discussion and individual consultations.

Conclusion

Publication continues to be a decisive indicator of success for scholars. Consequently, there is an expectation that graduate students must become experts, create new knowledge within a disciplinary niche, and ultimately share this new knowledge within a published format, whether print or digital. The ACRL Framework explicitly notes this expectation in the knowledge practice of “Scholarship as Conversation,” whereby students should “contribute to the scholarly conversation at an appropriate level.” If the goal is for these to come through explicitly in students’ learning, they should be codified into assessment measures.
be interesting to see other librarians continue the conversation on scholarly publishing literacy through case studies of their own graduate education instructional efforts focusing on publishing, which can fuel further discussion of the definition, development, and support of scholarly publishing literacy knowledge practices. Although the literature shows that libraries work toward these goals through a variety of instructional initiatives focusing on different aspects of publishing, librarians do not appear to have developed a rigorous or consistent methodology for assessing student learning in this type of voluntary programming, beyond self-reported feedback surveys. The Framework may provide a means to create more assessable outcomes for scholarly publishing literacy, certainly an area ripe for additional research.

While the Publishing Academy originated as a continuation of the partnership between the library and SIGS, it also showed the value of the library to the graduate student audience in a deeper way than previous collaborations. The Publishing Academy represents a case study of a strategic growth area for libraries and one that harnessed the authors’ own generalist expertise with university scholars’ expertise in relevant areas of scholarly publishing literacy. As one student enrolled in the Publishing Academy noted, “We aren’t getting this in our own departments.” This brings to mind Baruzzi and Calcagno’s call to bridge gaps in graduate education and Covert-Vail and Collard’s urging to “expand overall graduate student offerings by filling gaps and sharing information.” Librarians often refer to themselves as generalists, and the Publishing Academy allowed the authors to introduce another area of generalized expertise that is outside the purview students may expect and, according to the inaugural cohort, sometimes outside the purview of their own departments. Indeed, through the Publishing Academy, students from many different disciplines found that they could learn about publishing at the same place: the library.

The Publishing Academy represents a case study of a strategic growth area for libraries and one that harnessed the authors’ own generalist expertise with university scholars’ expertise in relevant areas of scholarly publishing literacy.

Samantha McClellan is the social sciences teaching and faculty outreach librarian at the William F. Ekstrom Library of the University of Louisville in Kentucky; she may be reached by e-mail at: samantha.mcclellan@louisville.edu.

Robert Detmering is the coordinator of information literacy services at the William F. Ekstrom Library of the University of Louisville in Kentucky; he may be reached by e-mail at: robert.detmering@louisville.edu.

George Martinez is the diversity residency librarian at the William F. Ekstrom Library of the University of Louisville in Kentucky; he may be reached by e-mail at: george.martinez@louisville.edu.

Anna Marie Johnson is the head of research assistance and instruction at the William F. Ekstrom Library of the University of Louisville in Kentucky; she may be reached by e-mail at: annamarie@louisville.edu.
Appendix A

Publishing Academy Session Descriptions

Session One: Maximizing Your Impact, or, How I Learned to Stop Worrying and Love Citation Metrics

Have you ever wondered how to assess the quality of a journal? What about identifying key journals in your field, or notable scholars? This session will delve into tools that help you identify potential journals in your field as well as tools that will allow you to assess the value and impact of journals through measurements such as impact factor, dissemination outlets, and altmetrics.

Session Two: Fight for Your (Authors’) Rights: Copyright, Open Access, and License Negotiations

Gaining an understanding of basic publishing legalese can help you understand and negotiate your rights as an author and as a creator of intellectual property. This session will cover authors’ rights, negotiating licensing agreements, and open access to empower you with the knowledge necessary to navigate the legal side of the publishing landscape and retain your rights as an author while still publishing in reputable outlets.

Session Three: Everything You Wanted to Know about Working with Publishers (but Were Afraid to Ask)

Experienced faculty from a variety of academic departments will share their most recent publishing experiences, providing guidance about choosing publication venues, writing proposals, developing and editing manuscripts, and meeting the expectations of editors and publishers. The session will also explore strategies for transforming dissertation research into formal publications, including books and journal articles.

Session Four: Mission (Im)possible: Strategies for Writing for Publication

This session will focus on the nuances between writing for graduate coursework and for publication, as well as strategies for adapting your research and seminar papers into journal articles and conference presentations. Other topics include identifying relevant publication venues and responding to and revising peer-reviewed work based on comments.

Session Five: It’s the End of the Publishing Academy as We Know It: I Have My Plan and I Feel Fine

The final session will give participants an opportunity to reflect on lessons learned and receive feedback on their publishing plans. A panel of faculty who are currently working through the tenure process will discuss their recent experiences with publishing and how they manage research and publication requirements with other professional obligations.
Appendix B

Publishing Plan Homework
SIGS Publishing Academy: Developing Your Publishing Action Plan

Introduction
Over the course of the Publishing Academy, you will be asked to respond to questions designed to help you practice the skills and think through the concepts covered in each session in relation to your own research interests and projects. By the end of the academy, you should have a complete action plan, including a timeline that will help you navigate the vast publishing landscape and set achievable goals toward publication.

Publishing Plan: Session-by-Session Homework
Respond to the questions based on the following checklist to help you formulate your overall Publishing Plan, which will be complete in time for in-class discussion on April 4.

Pre-Academy Homework—due Sunday 1/31
1. What are the aims and purpose of your research? Please note current research interests or projects, though it is not necessary to have a specific project in mind for this Academy or the publishing plan.
2. To which disciplinary field(s) does this topic connect?
3. What format of publication do you anticipate for your research?

Post-Session 1 Homework—due Sunday 2/28
1. What are your own goals for publication related to this research topic?
2. Based on your response, explore and identify at least 2 relevant publication outlets.
   a. Why did you select these venues?
   b. (If journals) Are they open access or subscription-based publications?
   c. Browse the last two years of one of the publications and identify topics on which the journal publishes. (For books, take a look at the publishers of the books you are reading for your research, go to their websites, and browse their catalogs.)
3. From these outlets, can you find any copyright information about the journals/book publishers? If so, what do they say with regards to copyright?
4. What metrics are applicable to these outlets?

Post-Session 2 Homework—due Sunday 3/20
1. Based on what we have talked about in the first two sessions, what are some challenges you might face in the research to publication process?
2. What questions do you have for the tenured faculty panelists? Identify at least two questions.
Post-Session 4 Homework—due Sunday 4/3

1. Review your prior homework assignments for the Publishing Academy and think about your next steps. How have your thoughts on publishing changed over the course of the semester?

2. With everything in mind, create a timeline for your research project—whether anticipated or current. What does your timeline look like from research to publication?

3. The final panel consists of tenure-track faculty. With that in mind, what questions do you have for our panelists? Identify at least two questions.

Notes


5. Ibid.


8. Ibid., 399.


10. Ibid., 14.

11. Ibid., 6–7.


Raising the Library’s Impact Factor


19. Ibid., 17.


22. Ibid., 539.


24. Ibid., 177.


31. Covert-Vail and Collard, “New Roles for New Times”; Belcher, “Reflections on Ten Years of Teaching Writing for Publication to Graduate Students and Junior Faculty.”


33. ACRL, Framework for Information Literacy for Higher Education.