Located in Bethlehem, Pennsylvania, Moravian Theological Seminary (MTS) offers several degrees and certificates. In addition to the Master of Divinity (MDiv), students can earn a Master of Arts in Theological Studies (MATS), Chaplaincy (MACh), and/or Clinical Counseling (MACC). Certificates are available in formative spirituality and spiritual direction. Currently the Seminary enrolls 46 full-time equivalents.

Students and faculty alike benefit from the seminary’s relationship with Moravian College, a private liberal arts college. College and seminary resources are pooled, and one library serves all students. Not only do I serve as the library’s seminary liaison, but I also provide instruction, outreach, and reference services to undergraduate students. Therefore, I look for library practice applications useful across user populations.

**Project Beginnings**

In the spring of 2016, scholarship on curriculum mapping began to pique my interest. During Moravian Theological Seminary’s two-day curriculum meeting in May, dubbed the “marathon meeting,” I listened attentively as faculty focused on curriculum review and established gating assessments (core assignments that students must pass in order to successfully advance in a degree program) for each program. I contemplated how these measures might fit with information literacy. Keeping these thoughts in the back of my mind, the topic of curriculum mapping resonated with me at the American Theological Library Association (ATLA) Conference in June 2016. Desirae Zingarelli-Sweet’s poster presentation...
“Prepare a Way through the Wilderness: Transforming Library Instruction by Mapping the Curriculum” inspired me to develop a plan for my institution. The next month, I met with the dean of the seminary to share conference highlights and pitched the idea of mapping the ACRL’s Framework to the seminary’s curriculum. The dean recommended beginning with the MATS program, and the Seminary’s registrar promptly granted me access to course syllabi. By the end of the summer, I was well underway with the curriculum mapping process.

**Theory and Praxis**

Due to changes in the landscape of higher education, librarians may feel an increasing need to assert their value. Higher education institutions grapple with a myriad of issues: economic pressures, declining enrollment, advances in technology, the public perception of the value of higher education, and more. As a result, assessment, accountability, and information literacy become even more important, with librarians demonstrating their worth by showing how they contribute to the mission and goals of the institution and aid with retention and student success. Curriculum mapping is one way librarians can showcase their value. As Timothy Lincoln at Austin Presbyterian Theological Seminary Library has argued, the curriculum and library use are closely intertwined, and he raises a relevant question: how does the library show that it supports the seminary’s curriculum? Curriculum mapping can serve as one answer. The purpose of curriculum mapping involves ensuring that goals tie to the work being done.

In surveying the literature, most curriculum mapping occurs at the undergraduate level. Nonetheless, this scholarship holds meaning for seminars and continues to encompass more disciplines.

While there is consensus that curriculum mapping is systematic, definitions vary and librarians and educators view curriculum mapping from different perspectives. Librarians at Loyola Marymount University describe curriculum mapping as “a way of examining a program of study and the courses within the program in order to understand curriculum structures and relationships, gain insight in how students experience their discipline, and increase curricular content.” Medical educator R. M. Harden offers an even more robust definition: “Curriculum mapping is concerned with what is taught (the content, the areas of expertise addressed, and the learning outcomes), how it is taught (the learning resources, the learning opportunities), when it is taught (the timetable, the curriculum sequence), and the measures used to determine whether the student has achieved the expected learning outcomes (assessment).” The links that curriculum mapping highlight are invaluable. Curriculum mapping identifies not
only library instruction opportunities, but points out redundancies too.\textsuperscript{12} Moreover, curriculum mapping provides a visual for scaffolding.\textsuperscript{13} Curriculum mapping can show how library instruction supports course outcomes and assignments.\textsuperscript{14}

Often, curriculum mapping focuses on learning outcomes. Megan Oakleaf defines learning outcomes as “what librarians hope students will be able to do as a result of instruction.”\textsuperscript{15} She emphasizes that learning outcomes require observable and measurable behaviors and, therefore, when formulated, active verbs should be chosen.\textsuperscript{16} Ideally, the goals and objectives of the information literacy program should be in alignment with those of the library and institution as a whole. If so, library learning outcomes can be mapped to accreditation, departmental outcomes, and/or institutional learning outcomes.\textsuperscript{17} Librarians at Cornell University took a slightly different approach, mapping library instruction to the institution’s curriculum, but without including learning outcomes.\textsuperscript{18}

Libraries have used curriculum mapping to focus on different contexts and content. In one case study, librarians targeted courses in, among other disciplines, religious studies, and mapped these to library learning outcomes.\textsuperscript{19} More recently, librarians at Concordia College mapped the frames to required PEAK (Pivotal Experience in Applied Knowledge) projects, which are immersive capstones for graduating students.\textsuperscript{20} At Pitts Community College, librarians mapped the general education curriculum to the older ACRL information literacy standards,\textsuperscript{21} while at the University of Tennessee, librarians mapped science courses to those standards.\textsuperscript{22} Many times, librarians will begin curriculum mapping by starting with courses required for a particular major.\textsuperscript{23}

Before curriculum mapping became a buzzword, Douglas Gragg at Candler School of Theology advocated embedding information literacy into required courses.\textsuperscript{24} Gragg’s recommendation would work especially well if stand-alone concepts could be taught in required classes, for scaffolding information literacy concepts can be challenging especially with the absence of sequenced courses.\textsuperscript{25} At Moravian Theological Seminary this is the case—students have required courses for each degree program but they are not always taken in a particular order. Focusing curriculum mapping on learning outcomes for a degree program then becomes wise and is a practice that some libraries adopt.\textsuperscript{26} At Moravian, I began by mapping MATS gatekeeping measures to the ACRL frames and added learning outcomes for required courses. Some librarians include electives for each major in their curriculum mapping as well.\textsuperscript{27} Librarians at Loyola Marymount University explain their process in detail; they record “the learning outcomes (what students do); the assignment (how the student demonstrates learning); the curriculum (what does the student need to know to do it well?); and how it is assessed or graded (how we know the student has done it well).”\textsuperscript{28}
In addition to the curriculum itself, assessment is another key component of the curriculum mapping process. Extolling the importance of assessment, Syracuse University library science professor Megan Oakleaf emphasizes that assessment plans serve as tools to demonstrate "the value that academic librarians contribute to the teaching and learning mission of their institutions." Curriculum mapping can serve as an assessment vehicle, and Standard 4 of the Association of Theological Schools (ATS) speaks directly to the role of the library. Standard 4.2 addresses the library's contributions to "learning, teaching, and research," and Standard 4.3 focuses on the library as a partner in curriculum development. Oakleaf encourages librarians to become partners in the curriculum by discussing discipline-specific threshold concepts with teaching faculty to see how they overlap with information literacy and critical thinking skills. William Badke, Associate Librarian for Associated Canadian Theological Schools and Information Literacy at Trinity Western University echoes Oakleaf's recommendation, urging librarians to collaborate with theology faculty members to create meaningful learning outcomes and corresponding assignments, supported by library instruction.

Timothy Lincoln also provides insight for theological contexts. In examining the curriculum at Austin Presbyterian Theological Seminary, Lincoln focuses on curricular information demand (CID). He defines CID as "how a school's curriculum requires students to find, discover, and use information resources for non-field work courses." He uses a table to map the intensity of a task to information-seeking behavior and, while not stated explicitly, information literacy concepts are present. Lincoln then specifically targets classes with a moderate to high intensity level, many of which were MATS courses. He also developed the acronym FRAU (find, retrieve, analyze and use), which he maps to courses in another table; these mappings could be useful for a tiered approach to library instruction. His project could also easily be expanded by incorporating the new information literacy frames. Lincoln demonstrates that syllabi can be effective tools for measuring CID. At Moravian, course syllabi served as a core resource for curriculum mapping.

Studying syllabi is not a new concept. In 1985, Jeremy Sayles highlighted that studying syllabi could improve library instruction. Today, librarians can analyze syllabi to identify information literacy; highlighting courses with a research component is an important step in the curriculum mapping process. Starting with syllabi can be a good start, but examining the curriculum involves conversations with faculty, too. For Lincoln, CID was a great way to begin discussions with faculty about assignment collaboration. My experience at Moravian was similar: sharing the curriculum mapping with faculty members helped with designing information literacy assessments.
**Techniques**

When it comes to curriculum mapping, there is no “one size fits all” technique. Nonetheless, certain methods may be more effective. If multiple librarians plan to contribute, using Google Sheets or a similar shared document can be useful. Since I was the only librarian initially working on curriculum mapping at Moravian, I instead used an Excel spreadsheet. Incorporating symbols to designate the presence or absence of information literacy can also be beneficial. For example, I used the color yellow to represent the presence of an information literacy session. Another library used a special background color to flag courses that required research but lacked library instruction in the last five years.

**Curriculum Mapping and the ACRL Frames**

The first tab in Moravian’s Excel spreadsheet charts how the gatekeeping measures (core assignments) identified by the seminary faculty align with the frames (Image 1). After completing this task, I solicited input from the information literacy coordinator to ensure that I was on the right track. Once she endorsed my work, I mapped course objectives for all required courses in the MATS degree to the frames. Moravian teaching faculty developed both the course learning objectives and the gatekeeping measures.

Each required course has a separate Excel tab in the spreadsheet, and for each class I did my best to develop information literacy objectives. In Moravian’s curriculum mapping spreadsheet, the information literacy frames are across the top of the document. Along the left side are course learning objectives, each one on a separate line; please see Image 2 below for an example. In the curriculum mapping process, I also identified assignments and/or assessments that represent each of the ACRL frames. Given the overlap among the frames, some assignments fall into more than one category.
### IMAGE 1 - MATS Curriculum Mapping Spreadsheet

<table>
<thead>
<tr>
<th>Information: Essay in Place of Spring 2017</th>
<th>Authority &amp; Constructed Contextual</th>
<th>Information Creation as a Process</th>
<th>Information has Value</th>
<th>Research as Inquiry</th>
<th>Scholarship as Conversation</th>
<th>Searching as Strategic Exploration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain broad familiarity with the contexts of the NT and other early Christian literature</td>
<td>Students will be able to use concordances and dictionaries to aid in their interpretation of scripture</td>
<td>Students will be able to outline and incorporate various viewpoints in their interpretation paper (Gating Assessment)</td>
<td>Students will be able to explain how an author's background and unique influences shaped their interpretation of Scripture</td>
<td>Students will be able to identify characteristics of scholarly articles as evidenced in the bibliography of their Interpretation Paper (Gating Assessment)</td>
<td>Students will be able to develop a thesis statement that directs their research</td>
<td>Students will be able to synthesize and integrate secondary sources (articles, books, commentaries, etc.) into their Interpretation Paper (Gating Assessment)</td>
</tr>
<tr>
<td>Set the social world of ancient Christianity within a first-century context</td>
<td>Students will be able to outline and incorporate various viewpoints in their interpretation paper (Gating Assessment)</td>
<td>Students will be able to outline and incorporate various viewpoints in their interpretation paper (Gating Assessment)</td>
<td>Students will be able to synthesize and integrate secondary sources (articles, books, commentaries, etc.) into their Interpretation Paper (Gating Assessment)</td>
<td>Students will be able to develop a thesis statement that directs their research</td>
<td>Students will be able to develop a thesis statement that directs their research</td>
<td>Students will be able to develop a thesis statement that directs their research</td>
</tr>
<tr>
<td>Learn and begin to gain facility with various modern methods for interpreting and theologically reflecting upon NT texts</td>
<td>Students will be able to outline and incorporate various viewpoints in their interpretation paper (Gating Assessment)</td>
<td>Students will be able to outline and incorporate various viewpoints in their interpretation paper (Gating Assessment)</td>
<td>Students will be able to synthesize and integrate secondary sources (articles, books, commentaries, etc.) into their Interpretation Paper (Gating Assessment)</td>
<td>Students will be able to develop a thesis statement that directs their research</td>
<td>Students will be able to develop a thesis statement that directs their research</td>
<td>Students will be able to develop a thesis statement that directs their research</td>
</tr>
</tbody>
</table>

### IMAGE 2 - Introduction to New Testament Curriculum Mapping

- Identify and engage diverse and overlapping cultural and social dynamics (Gating Assessment: Unit 7 Portfolio)
- Independently identify, pursue, and acquire knowledge in the field of study (Gating Assessment: SEIP 550: Initial annotated bibliography: Research tutorial with Seminary Liaison Librarian)
- Identify a research issue, use primary research materials and discuss the issue in a coherent, thoroughly researched, integrative paper or project (Gating Assessment: Thesis)
- Integrate social, historical, intellectual, and/or theological contexts of an object of study (Gating Assessment: SEIP 630 Final Assignment OR SECC 620 Final Assignment; SEIP 630 Final Assignment)
**Authority is Constructed and Contextual**

Key tenets of the frame Authority is Constructed and Contextual include context and perspective. Cultural differences in geographic locations impact the interpretation of Scripture. This is certainly the case in the Global South, where culture factors into the understanding of the Bible. According to the *Framework*, learning occurs when an audience is open to new perspectives. Faculty at Moravian value this type of learning, recognizing, acknowledging, and celebrating multiple voices. As a result, several assignments map to the frame Authority is Constructed and Contextual, including the Texts in Context (TiC) paper for Hebrew Bible, the interpretation paper in New Testament, and the final paper in Christian Ethics.

Faculty at Moravian designated both the TiC paper and the interpretation paper as gating assessments for the MATS degree. The TiC paper requires students to “analyze primary research materials, demonstrate knowledge of larger contexts, and [be able] to interpret scripture.” William Badke provides a similar example that can be used in a biblical studies course: students can trace the research on a particular topic over time by examining the different perspectives scholars offer. In terms of a learning objective for this type of assignment, for *Introduction to New Testament* I wrote that “students will be able to analyze and incorporate various viewpoints.” Certainly the frame Authority is Constructed and Contextual can be assessed by analyzing the sources students choose for their papers. Megan Oakleaf shares that students can demonstrate mastery of this frame “by brainstorm[ing] characteristics of authors deemed as trustworthy on a topic.” At Concordia College, librarians mapped Authority is Constructed and Contextual to first-year library instruction, focusing on the peer-review process. While faculty certainly want students to use scholarly sources, the professor of New Testament and I wanted to move beyond merely checking for credible sources. Therefore, we collaborated on a rubric to assess the number, caliber, and diversity of sources (Table 1). The rubric we developed can also assess Information Creation as a Process.
### Table 1 - MTS Introduction to New Testament Bibliographic Analysis Rubric

<table>
<thead>
<tr>
<th>Number of sources</th>
<th>Caliber of resources</th>
<th>Diversity of sources</th>
<th>Authority is Constructed and Contextual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scholarship as Conversation</td>
<td>Information Creation as a process</td>
<td>Scholarship as a conversation</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Primarily cites sources that fall into the category of popular literature.</td>
<td>Paper lack diversity, with sources either coming from the same author, publisher, and/or journal.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cites articles from popular literature, general interest publications, and trade/professional serials. Primarily sites book that are more than 10 years old.</td>
<td>Paper shows some diversity with sources coming from 2 to 3 authors, publishers, and/or journals. Cited commentaries are broad and focus more than 1 book of the Bible.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Cites articles from both trade/professional publications and scholarly, peer-reviewed journals. Cites books from well-known commentary series and reputable publishers.</td>
<td>Paper shows diversity with sources coming from 3 more authors, publishers, and/or journals. Cited commentaries focus on a single book of the Bible.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Orinearly cites scholarly, peer-reviewed articles and book from well-known commentary series and reputable publishers.</td>
<td>Paper shows diversity with sources coming from 4 or more authors, publishers, and/or journals. Cited commentaries focus on a single book of the Bible.</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

### Information Creation as a Process

The rubric category “caliber of resources” easily maps to the frame of Information Creation as a Process (see Table 1). Information Creation as a Process values the peer review process. Many faculty members want students to cite scholarly sources, including the New Testament professor with whom I was working. Not only was he looking for peer-reviewed articles, but he wanted students to incorporate recent scholarship too. Alas, with the departure of this professor, I have not had an opportunity to assess student bibliographies for Introduction to New Testament. However, I may be able to use this rubric with student bibliographies from Hebrew Bible.

Badke offers another way to approach this frame, utilizing primary and secondary sources. He explains that students in a church history course could
identify a primary document and show how this material influences secondary sources and, in the process, identify key secondary literature on a topic.  

**Information Has Value**

Information Has Value emphasizes the importance of intellectual property and proper attribution. The library instruction I offer to students in the course *Learning in Community* (LinC) highlights the importance of academic integrity, and since all seminary students, regardless of program, must complete this course, the content reaches the entire seminary student population. In LinC, I present students with a series of scenarios asking them to first decide if the situations are examples of plagiarism and then prompting them to explain their rationale. Currently, LinC is under review, and it appears that, moving forward, I will be fully integrated into this course, meeting with students in each degree program during their first semester to discuss discipline specific resources in addition to plagiarism. As a result, I hope to design assessments to measure not only this frame but others as well.

Librarians at other institutions have also focused on this frame. For example, the work of librarians Rebecca Kuglitsch and Peggy Burge maps to Information Has Value. Kuglitsch and Burge begin their citation management sessions by asking students to reflect on and name their frustrations with citations. They view these workshops as an ideal intermediate step appropriate for sophomores. By the time students are working on a capstone project, it is too late and, given all the concepts covered during the first year, it is simply not feasible to cover this material earlier. Timing these workshops, however, can be tricky. At Moravian, when I offered joint Zotero workshops for undergraduate and seminary students, few people attended, mirroring the experience of Kuglitsch and Burge. The solution for Kuglitsch and Burge involved offering library classes on demand; a group of classmates and/or friends could request a personalized citation workshop. At Moravian, this idea seems worth trying with both seminary students and undergraduate honors students—two of the previous target audiences. Citation workshops fit nicely with academic integrity, something that faculty care deeply about, perhaps easing the buy-in process and reaching more departments.
Research as Inquiry

Most programs of study relate in some form to the frame Research as Inquiry. The Framework notes that "research is iterative and depends on asking increasingly complex or new questions whose answers in turn develop additional questions or lines of inquiry in any field." Oakleaf notes that a measure of Research as Inquiry includes the ability “to list areas of consensus and disagreement among publications on a topic.” Critical essays, research proposals and papers, capstone projects, and theses map to this frame. With regard to the MATS program at Moravian, the research proposal for Hebrew Bible and the thesis align well with the frame Research as Inquiry. While I have not developed assessments that tie to this frame yet, the professor of Hebrew Bible values information literacy skills and has invited me to meet with her classes in the past. She is now teaching the thesis prep course as well. Since the library receives copies of each student thesis, it will be relatively easy to evaluate them once an assessment measure is developed. The thesis required of all MATS students serves as the culminating gatekeeping measure for the degree and maps to multiple frames.

Scholarship as Conversation

Much overlap exists between Research as Inquiry and Scholarship as Conversation, and certainly this is the case with regard to the MATS thesis at Moravian. The frame Scholarship as Conversation invites students to add their voices to the scholarly conversation on a topic. Four gating assessments at Moravian Theological Seminary align with this frame: the thesis, the annotated bibliography for the thesis prep course, the final paper in Christian ethics, and the interpretation paper for New Testament. According to the faculty learning objective for the thesis, students must "identify a research issue, use primary research materials and discuss the issue in a coherent, thoroughly researched, integrative paper or project." I also mapped the course Christian Theology to the frame of Scholarship as Conversation, “hoping that students can contribute to the conversation surrounding the theologians they study.” The New Testament interpretation paper not only requires that students also use a variety of sources, but that they demonstrate synthesis and integration of these articles, books, commentaries, etc. All three categories on the bibliography rubric attempt to assess these skills (see Table 1), and I am currently creating an assessment for this final paper.
Searching as Strategic Exploration

The frame Searching as Strategic Exploration may be the easiest frame to assess, for it focuses on brainstorming and search strategies. The Framework explains that "[s]earching for information is often nonlinear and iterative, requiring the evaluation of a range of information sources and the mental flexibility to pursue alternate avenues as new understanding develops." To address this frame, I initially developed exercises and assessments for use with Introduction to New Testament and the thesis prep course. Over the last year, library colleagues and I have begun mapping the frame Searching as Strategic Exploration to undergraduate courses.

Introduction to New Testament

Teaching library instruction sessions for undergraduates influenced the search strategies form I created for use with students in Intro to New Testament. The exercise I developed helps students “get their feet wet” with the research process. During the spring 2018 library session for Intro to New Testament, I distributed this exercise (please see Table 2), which students completed before leaving the library.

<table>
<thead>
<tr>
<th>Search Tool (e.g., online library catalog, database—specify name, Google)</th>
<th>Keyword(s) Used</th>
<th># of Results</th>
<th>Modifications to Search (e.g., limiting by year, using synonyms and/or subject terms)</th>
<th>Citations</th>
</tr>
</thead>
</table>

TABLE 2 - Search Strategies Form

To assess these worksheets, I created a search strategy checklist, focusing primarily on where students are searching and the modifications they are making. The checklist directly assesses concepts covered during the library session. All eight students searched a database with students making anywhere from one to five search modifications; Table 3 provides a breakdown of these modifications.
As students progress through the MATS degree, their search skills should improve. Therefore, my initial goal was to utilize both the search checklist and the research log exercise to compare the progression of information literacy. However, this data collection and analysis has not occurred yet.

**Research Log**

The thesis reflects the search prowess of MATS students. One of the course objectives listed in the syllabus for the thesis prep course (SEIP950) includes “[t]o present tools and opportunities to strengthen research skills” for which I wrote the following learning objective for this course: “Students will create a research log in order to record their search strategies, identifying where and how they have searched (e.g., the keywords and subject terms they have employed).” Once students have identified a topic, the research log directions (Image 3) prompt them to create a concept map utilizing a free mind mapping tool available from the University of Arizona ([http://www.library.arizona.edu/help/tutorials/mindMap](http://www.library.arizona.edu/help/tutorials/mindMap)). Concept maps are great for brainstorming and can serve as performance assessments.

The research log calls upon students to move beyond the mere mechanics of searching in order to reflect on their experiences and grow, thereby embodying the seminary’s focus on knowledge, skills, and being. As I created the research log exercise, I solicited input from both the dean of the seminary and the director of the MATS program. My goal with this frame involves students maintaining a research log throughout the semester.

During library sessions for students in the thesis prep course in both the fall of 2017 and 2018, I distributed the research log exercise. Initially, I was hopeful that these logs would be completed and returned to me. However, that has not happened yet. In the future, I plan to revisit this request.

Librarians at other institutions have been more successful in gathering and analyzing research log data. For example, at the University of Tennessee, librarians assess detailed research logs as part of their curriculum mapping.

<table>
<thead>
<tr>
<th>Search Modification</th>
<th>Number of Students Who Chose Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>6</td>
</tr>
<tr>
<td>Full text</td>
<td>3</td>
</tr>
<tr>
<td>Language</td>
<td>3</td>
</tr>
<tr>
<td>Scripture/Bible citation search feature</td>
<td>1</td>
</tr>
<tr>
<td>Source type (e.g., scholarly peer-reviewed)</td>
<td>6</td>
</tr>
<tr>
<td>Subject terms</td>
<td>2</td>
</tr>
</tbody>
</table>

**TABLE 3 - Search Strategy Assessment**
Colgate University, students complete a prefocus essay “identifying resources consulted, search terms tried, search strategies attempted, etc.”

Research Log Recommendations

1. What is your research topic?
2. Brainstorm with the University of Arizona's mind mapping feature (http://www.library.arizona.edu/help/tutorials/mindMap)
3. Where did you find information (online library catalog, database, etc.) Be as specific as possible
4. For each search tool (online library catalog, database, etc.) describe your search strategy. What keyword did you use? How many search results did these terms yield? Indicate with a plus (+) or minus (−) the relevance of these results.
5. What subject terms did you use? How many search results did these terms yield? Indicate with a plus (+) or minus (−) the relevance of these results.
6. Describe special search features/approaches you used to find information (e.g., scripture citation in ATLA religion database, citation searching, etc.) Indicate with a plus (+) or minus (−) the relevance of these results.
7. How did you broaden or narrow your search results? It may be helpful to visualize your topic as fitting on the rung of a ladder and choose different terms to move up or down on the ladder to narrow or broaden your search results.
8. What “limiters” did you use (e.g., peer-reviewed)?
9. Reflection: How did you determine whether or not your search strategy was effective? How will this impact your searching in the future?
10. Include citations for sources you may use.

IMAGE 3 - Research Log Exercise
Additional Applications

Keeping a research log requires persistence, a skill that librarian Janet Hauck explored by collaborating with four theology faculty at Whitworth University. Hauck received a grant from the Wabash Center for Teaching and Learning that focused research on students’ intellectual tenacity. At the beginning of the semester, Hauck met with classes for approximately ten minutes to discuss this concept. She began with the icebreaker: “What is one thing you are good at?” She used this conversation starter to emphasize the importance of hard work and perseverance when it comes to research, which maps to both Research as Inquiry and Searching as Strategic Exploration.

Search exercises, handouts, worksheets, etc. often map to the frame Searching as Strategic Exploration and can easily be adapted for use with multiple populations. The research prescription that I developed for individual appointments with seminary students is a perfect example. I use this worksheet when meeting with both seminary and undergraduate students and believe that it assists students in playing a more active role in learning. Inspired by a similar exercise developed by Fenwick Library at George Mason University, the research prescription prompts students to brainstorm search terms and record where they are searching, similar in some aspects to the search strategy form and research log exercises used with specific seminary courses. Furthermore, I modified the research prescription to serve the needs of undergraduate honors students, who are required to meet with a librarian for approval of their project. While meeting with a librarian, the student completes the form and can refer to it at a later time if desired.

Expanding curriculum mapping to undergraduate programs at Moravian College, the focus centers on the frame Searching as Strategic Exploration. Since the freshman seminar includes a required information literacy session, the instruction librarians decided to map this frame to a handful of specific upper level courses, hoping to expand the scope of information literacy instruction. This new project began in the fall of 2018. Now, each librarian selects at least one course per semester for which she will be leading a library session; so far, classes include the following disciplines: art, English, health sciences, neuroscience, nursing, and psychology. Similar to the curriculum mapping for the seminary, my colleagues and I began by mapping the frames to the college’s strategic plan pillars: “academic excellence and innovation, growth through partnership, a culture of community, enroll and retain students and engage alumni, and entrepreneurial stewardship.” We then created a tab in Google sheets for each course, mapping course objectives and assignments listed in syllabi to the ACRL frames, as well as the college’s pillars. Through this project, my colleagues and I
would like to demonstrate that librarians contribute to the learning goals not only of specific courses but also of the institution as a whole. Librarians at Concordia College have found it helpful to align instruction statistics with the frames, and Moravian’s library instruction statistics are similarly mapped to the frames, which should prove useful in identifying future collaborations. Since the undergraduate curriculum mapping project at Moravian is still in its infancy, we are still determining the scope of this project and have yet to develop assessment measures.

MARKETING AND OUTREACH

Regardless of the stage of curriculum mapping, this approach can serve as a marketing tool for information literacy. However, in order to be marketable, curriculum mapping must be relevant. Therefore, tying the frames to the curriculum and existing assignments is a great place to start. At the University of Tennessee, teaching faculty received “targeted course maps” indicating how the library assists with both individual courses and entire degrees. Additionally, curriculum mapping is useful for accrediting bodies. Section 4.2 of Moravian’s ATS Self Study specifically mentions the curriculum mapping related to the MATS degree.
The perception of librarians can impact the faculty’s reception to information literacy curriculum mapping. As a result, library outreach to faculty is imperative for charting a good course. Certainly there is a place for librarians in new faculty orientation to alert faculty of key resources and available services, but the education should not end here. For additional workshops to be successful, libraries could consider providing food and conducting a survey to determine timing and content. Similar to working with traditional students, the sessions should be planned to coincide with times that faculty will be working on research and/or revising assignments. As an example, librarians at Northwest Vista College have gotten it right: during a faculty development seminar they offered a presentation entitled “Top 10 Things,” highlighting how faculty can assist students with library research. Additionally, librarians at Northwest Vista offered a lunchtime session on multidisciplinary databases, timing this presentation during an in-service week. Melody Layton McMahon encourages librarians to serve as “teachers to the teachers.” Acting on her advice and with the blessing of the dean of the seminary, I offered an information literacy session for seminary faculty in May 2016. In order to make the content as meaningful as possible, I created a survey to gauge awareness of and interest in resources and services. The resulting information literacy session focused on library resources for the new chaplaincy program and highlighted time saving features, such as creating research alerts and citation tools like Zotero. Offering on-point workshops for faculty opens the door for library sessions for students.

Another structured way to reach faculty involves planned visits. At Northwest Vista College, “becoming known on campus” includes offering “office calls.” During my first semester at Moravian, I offered something similar, dubbed “house calls.” In the fall of 2015, I met one-on-one with any interested seminary faculty members. Not only did I want to get a better sense of faculty members’ courses and research interests, but I also was interested in hearing what the library was doing well and how our services could improve. Additional topics of conversation included library instruction and assessment. During one of these meetings, I met with the then-director of the MATS program, and I would like to think that this conversation persuaded him to include library instruction in Introduction to New Testament because, historically, library instruction was absent from this course. He also was receptive to assisting with the curriculum mapping project. Since I last offered “house calls” over three years ago, a lot has changed. For one, there are new faculty at the seminary. It is likely time to revisit this mode of outreach, perhaps focusing on the topic of curriculum mapping. Librarians agree that curriculum mapping serves as a great “conversation starter.”
Outreach can occur in many forms, and informal conversations should not be underestimated. Librarians at Northwest Vista College highlight the value of visibility at campus events and the conversations that ensue as a result. Certainly, being present at faculty meetings, chapel, and luncheons, as well as offering office hours in the community gathering spot—the seminary’s kitchen—one afternoon a week, have worked in my favor. In these settings, I am often asked questions. Students follow up with research appointments, and faculty schedule library sessions. Offering research assistance in satellite locations serves as a form of outreach.

Once faculty recognize that librarians are approachable and eager and willing to support the goals of an institution, the path clears for discussions surrounding curriculum mapping. Nonetheless, it is essential to model open communication and to gain buy-in from faculty and administrators. Presenting curriculum mapping in an easy-to-understand format free of library jargon seems most effective. Curriculum mapping should be an ongoing conversation, sharing updates with key stakeholders. I have done my best to provide progress reports to the dean of the seminary and would like to engage in more brainstorming in the future. Positive change can transpire by sharing curriculum maps with administrators and faculty.

**Recommendations**

Curriculum mapping is a work in progress, a constantly evolving document that changes with the curriculum; therefore, it needs to be flexible. Accounting for changes in faculty also factors into the equation. Certainly this has been the case at Moravian. When I began working on this project, I worked closely with the director of the MATS program; however, he is no longer at Moravian, and it is unclear who will be assuming this role in the long term. Therefore, making versatile assessments and exercises that can easily be repurposed and retooled saves time and energy.

Curriculum mapping can be labor-intensive, so before embarking on such a project it can be helpful to consider who will participate in the endeavor, as well as the time commitment such a project may entail. Developing a timeline may help with visualizing the project. Starting with a single class is not unreasonable; this is the approach my colleagues and I are taking with the undergraduate program. Regardless of the approach taken, mapping the ACRL frames to valuable institutional measures, such as strategic plan initiatives or an institution’s mission statement, will make for smoother sailing and entice key stakeholders to join you on the voyage.
Future Course for Moravian

Curriculum mapping demonstrates the value of libraries as learning partners, for it can highlight contributions librarians make to the curriculum, and this serves as my ultimate goal. With clear links to institutional goals, curriculum mapping also results in a marketing tool and a means of faculty collaboration, efforts I plan to continue. Certainly scholarship informed my project and, as I chart the next course, it will continue to shape the future of curriculum mapping at Moravian. Beginning with the MATS program, I linked gating assessments and course objectives to each of the ACRL frames. In the past, my efforts have concentrated on *Introduction to New Testament* and the thesis prep course, looking for application in the undergraduate program. Moving forward, I would like to shift the focus slightly to account for changes in faculty and the seminary’s curriculum. Next, I would like to concentrate on mapping the frames to courses required of all seminary degree programs, hopefully reaching more students and maximizing my impact. The next phase of curriculum mapping will take time; however, repurposing some current information literacy assessments will aid in this process. I plan to start with LinC, a course that all seminary students will now be required to take during their first semester. Already, the dean and I are brainstorming what the revised curriculum may look like and imagine that I will be fully embedded in this course. Within LinC, I hope to provide customized library instruction for each degree program and, as a result, to work more closely with the teaching faculty. The proposed revisions will also provide opportunities for assessment. Once this course materializes, I will look for ways to collaborate with librarian colleagues to model and replicate information literacy training and assessment for undergraduates. The path forward will create new channels for curriculum mapping with numerous possibilities—onward I go!

Bibliography


Notes


16. Oakleaf, “Roadmap,” 512. While Oakleaf does not explicitly reference Bloom’s taxonomy of measurable verbs, it provides a helpful resource for indexing action language to metacognition.

17. Archambault and Masunaga, 504-5, 510.
23. Buchanan et al., 101; Bullard and Holden, 18; Gessner and Eldermire, 8.
28. Archambault and Masunaga, 511.
33. Lincoln, 21.
34. Lincoln, 23.
35. Lincoln, 24.
37. Lincoln, 22.

41. Lincoln, 24, 26.
42. Leslie Bussert, 146.
43. Lowe et al.
44. Buchanan et al., 99.
45. Miller, 221–2.
46. Miller, 221.
47. Miller, 223.

50. ACRL, Framework, 4–5.
51. Miller, 221–2.
53. Miller, 224.
56. Miller, 224.
57. Miller, 224.
58. Miller, 224.
59. ACRL, Framework, 6.
60. Miller, 224.
63. Miller, 225.
65. Kuglitsch and Burge, 80, 82.
66. Kuglitsch and Burge, 89.
67. Kuglitsch and Burge, 80.
68. ACRL, Framework, 8.
70. Miller, 225.
72. Miller, 222.
73. Miller, 225.
74. Miller, 224.
76. Miller, 227.
77. Miller, 227.
78. Miller, 226.
79. Miller, 225.
80. Miller, 225.
82. Miller, 225.
83. Miller, 225.
84. Miller, 225-6.
88. Hauck, 99.
89. Hauck, 99.
90. Miller, 226.
94. Cuevas, Matveev, and Feit, 26; Harden, 135.
95. Moravian Theological Seminary, "ATS Self Study" (2017), 25.
98. Reeves et al., 64.
99. McMahon, 76.
100. Reeves et al., 62.
101. Miller, 220.
102. Miller, 220.
103. Miller, 222.
104. Buchanan et al., 108; Gessner and Eldermire, 15.
105. Reeves et al., 63.
110. Buchanan et al., 108.
111. Harden, 134, 136.
113. Miller, 227.