Strength in Flexibility: Using a Flexible Programmatic Instruction Rubric to Promote Librarian Autonomy and Assess IL Skills

Maya Hobscheid, Anna White, and Kristin Kerbavaz

abstract: Librarians at a Midwestern, midsized state university studied the application of their flexible programmatic information literacy rubric to one-shot first-year writing library instruction. Ten librarians taught 23 sessions of first-year writing on information access skills and assessed each class using the flexible programmatic information literacy rubric. The results emphasize how a flexible rubric can both assess student learning and provide librarian instructors with autonomy to use methods and lessons that feel authentic to them.

Background

The Grand Valley State University (GVSU) Libraries in Allendale, Michigan, has continuously assessed its instruction program in different forms. This assessment has included large-scale surveys like Project SAILS (Standardized Assessment of Information Literacy Skills), instruction statistics entries by individual liaison and instruction librarians, and a long-term collaborative study with GVSU's Office of Institutional Analysis that has found a consistent correlation between library instruction and student retention.[1] Student learning has also been assessed, but typically on a smaller scale, with individual librarians assessing the student learning that occurs in their classes using a variety of methods.

The organizational culture of GVSU Libraries emphasizes individual initiative and creativity; while the library departments that provide instruction have shared goals for instruction, the details of how instruction is delivered remain at the individual librarian's discretion. The instruction librarians highly value this level of autonomy in developing and delivering their classes. This poses a challenge for assessment: how can we assess library instruction at the program level without denying librarians their autonomy?

In 2020, the instructional design librarian and the strategic assessment librarian attempted to address this tension by leading a working group of liaison librarians through the creation of a flexible rubric to assess student learning at the programmatic level without prescribing a particular classroom assessment method. It was important that the rubric balance flexibility and structure; autonomy is foundational to GVSU's library instruction program and was a focus throughout the development process, but the rubric needed to be useful

If the rubric was too rigid, librarians might choose not to use it at all

as well. If the rubric was too rigid, librarians might choose not to use it at all, or, perhaps worse, submit inaccurate data because of a mismatch between teaching and assessment methods. However, if the rubric were too flexible, the assessment data from its application may not provide any useful interpretation of student learning. To find balance, the instructional design librarian and the strategic assessment librarian were careful and strategic in their process, as described in a previously published paper on the process of developing the rubric.[2] In brief, the working group completed an environmental scan including their institution's general education rubrics, the American Association of Colleges and Universities (AAC&U) Information Literacy rubric, and the Association of College and Research Libraries (ACRL) Framework for Information Literacy for Higher Education. They then determined which aspects of the environmental scan fit within the GVSU Libraries' values and began to scope content to be included in the rubric.

The rubric was used to prioritize student learning outcomes, including which outcomes are taught across course levels and disciplinary areas to achieve the most programmatic impact. Individual librarians designed lesson plans that map to specific learning outcomes in the rubric. The goal of this initiative was to develop a tool that

Each instruction librarian develops their own learning objectives and methods based on the needs of the class, then applies the rubric to assess the average score of the whole class collectively.

would allow the GVSU Libraries to observe patterns in information literacy (IL) skills and behaviors across the university without using a standardized lesson or activity. Each instruction librarian develops their own learning objectives and methods based on the needs of the class, then applies the rubric to assess the average score of the whole class collectively. The rubric consists of seven rows, each representing a different student learning objective, as follows (see Appendix A for the final rubric):

- Inquire
- Access
- Evaluate
- Synthesize
- Cite
- Manage Emotional States and Cycles
- Library Service Foundations

Each objective is assessed on a scale of one to four. The librarian indicates that the class, as it relates to the assessed skill, is at the level of (1) emerging, (2) progressing, (3) refining, or (4) accomplished. Instruction librarians at GVSU assess their classes using a lesson or activity of their choice and determine an average score. To norm assessment practices, the instructional design librarian and strategic assessment librarian created an instructional assessment toolkit, which included assessment best practices, a menu of assessment methods for library instruction, a worksheet to support assessment development, and best practices for reporting assessment data. They also led workshops that explained how to norm rubric scores. In the first workshop, they asked participants to use the instruction assessment toolkit to identify appropriate assessment tools and methods based on a variety of scenarios, to identify appropriate rubric rows depending on the specific learning objectives for their scenarios, and to use the rubric to assess student learning. The participants reviewed the results together and discussed the criteria they used to arrive at their scores. In the second workshop, participants reviewed best practices for reporting assessment data, used the rubric to assess different kinds of assignments, and heard examples from their colleagues of how they have used the rubric in practice.

During the winter 2022 semester (January–April), the coordinators of the GVSU Libraries' first-year writing program conducted a study in which the first-year writing instruction team taught and assessed one objective from the rubric: access. This objective refers to how well students recognize and locate information and tools using strategic search methods.

The researchers established the following research questions for the study:

- How skilled are students in first-year writing classes when it comes to accessing information?
- How can a flexible rubric assess student skill level and preserve librarian creativity and autonomy?

This paper will outline the preexisting literature in library instruction programmatic assessment; will describe the methods used to conduct the study and the results; and will conclude with a discussion of the authors' reflections on the successes and challenges of the study, as well as the implications for implementing these methods at other institutions.

Literature Review

Assessment Methods

Much of the literature on the subject of library instruction assessment focuses on the application of assessment methods in the information literacy instruction context. Common methods explored include pre- and post-tests, student surveys, faculty satisfaction, and

> **. . . it was important that librarians maintain the autonomy to select methods that were appropriate to their own assessment philosophies, learning objectives, and students' needs.**

student reflection activities like start/stop essays, minute papers, and six-word memoirs.[3] Researchers frequently combine methods, and an emerging focus in the literature is on the use of critical pedagogical approaches, including emphasis on qualitative methods, to ethically assess student learning.[4] The wide variety of methods available, each creating a different student learning experience and providing different information to the assessor, was one of the drivers of the flexible rubric initiative: it was important that librarians maintain the autonomy to select methods that were appropriate to their own assessment philosophies, learning objectives, and students' needs.

Programmatic Assessment

The literature on programmatic assessment of library instruction can be effectively summarized through the typology proposed by Alison Head, Alaina Bull, and Margy MacMillan, which divides assessment work into four levels. The first two levels of this typology describe a single institution's work at a "micro" level, measuring the effectiveness of a single class or course, and at a "meso" level that illustrates the impact of a library instruction as a whole.[5] One method that can be applied at both the micro and meso levels of assessment is the rubric, an instrument "consisting of specific pre-established performance criteria, used in evaluating student work on performance assessments."[6]

Rubrics

In information literacy learning assessment, rubrics are often used to score responses to open-ended test questions, review authentic assessments, or conduct citation analysis of student research projects.[7] Megan Oakleaf found that data from these kinds of rubric scoring activities can support evidence-based decision making by informing the revision of tutorials, but she notes that rubrics must be well-written, normed, and balanced between generalization and detail in order to be effective.[8] Laura Gariepy, Jennifer Stout, and Megan Hodge describe how a programmatic rubric offers flexibility and scalability, as well as how a clear rubric can inspire a team to share ideas and connect with learning outcomes.[9] Several large-scale initiatives in the United States promote the use of rubrics in assessment, including the Rubric Assessment of Informational Literacy Skills (RAILS) research project, which was funded by the Institute of Museum and Library Services to support the design and implementation of information literacy assessment rubrics in nine academic libraries.[10] The libraries involved in RAILS shared "lessons learned" from the project, including to "start small" and "communicate and document" to avoid common pitfalls, such as lack of time and low inter-rater reliability as described by Karen Diller and Sue Phelps.[11] For additional information on rubric development and application in the library context, the researchers recommend Megan Oakleaf's extensive body of work.

First-Year Library Instruction Assessment

A smaller subset of literature focuses specifically on library assessment in first-year experience and first-year writing programs. Several institutions have conducted long-term studies of their approach to first-year information literacy instruction.[12] Alexandra Chisholm and Brett Spencer deployed a rubric to assess a first-year composition course's mastery of sources, and Jenny Mills, Claire Wiley, and Judy Williams similarly used a rubric to assess a "failed search" worksheet.[13] Some other assessment methods for first-year instruction include reviewing the final essay, pre- and post-surveys, and formative assessments.[14] While there are some similarities to the assessment methods outlined in the literature, the study described in this paper differs in that it provides significant flexibility in the types of assessment used.

Autonomy in IL Instruction

Autonomy is a valued element of many library instruction programs for both students and librarians.[15] While program-wide lessons and assessments may be convenient, reduce the need for continuous lesson plan development, and provide standardized assessment data, they require all instructor librarians to teach the same skills in the same ways. Amanda Nichols-Hess, in a review on motivational design in information literacy instruction, lists autonomy as one of many motivating factors for students engaging with IL concepts.[16] However, a librarian instructor can most easily facilitate student autonomy if they themselves have the autonomy to design, carry out, and assess sessions in the ways that seem best

> **Autonomy is a valued element of many library instruction programs for both students and librarians.**

to them. Earlier library literature describes lack of autonomy as a primary factor in instruction librarian burnout, while more recent works discuss autonomy as a preferred characteristic, if not a necessary one, to promote librarian creativity and willingness to try new instruction and assessment methods.[17] The researchers were hoping to do exactly that—inspire their first-year writing library instruction team to assess more frequently and in meaningful ways, especially in light of the need for flexibility built-in to the library instruction program.

Literature and the Study

This study was particularly influenced by the literature related to rubrics and autonomy. When developing a concept for the programmatic assessment of student learning, the instructional design librarian and the strategic assessment librarian recognized that the liaison and instruction librarians valued autonomy in how they taught and assessed, and that the guiding literature suggested that autonomy was an important factor in motivating librarians to try new instructional practices. They

> **. . . autonomy was an important factor in motivating librarians to try new instructional practices.**

needed to balance this with the need for consistency and purpose of data. From reviewing the literature connected to rubrics and information literacy, it became clear that a rubric would provide consistent data while also allowing individual librarians to design their own assessment at both the micro and meso levels. They could not achieve this level of flexibility in assessment with other methods. This flexibility was particularly important in the study because GVSU's first-year writing program is not standardized. Each writing instructor creates a syllabus and curriculum largely independent of other instructors; therefore, a librarian paired with two different writing instructors may need to create entirely different lessons to support the two instructors. The instructional programmatic access objective assessment tools other than rubrics, such as pre- and post-tests, are too rigid for universal application to the many teaching scenarios librarians at GVSU—and other institutions—encounter.

Methods

To examine how the flexible rubric could be applied to a variety of lessons related to the same skill, 13 librarians at Grand Valley State University participated in the study during the winter of 2022. The librarians were asked to teach and assess at least one lesson related to the access learning objective of the Instructional Programmatic Assessment Rubric to first-year writing courses. Access was selected for study because the researchers observed that it was frequently taught in past semesters.

As previously mentioned, first-year writing was selected for study because most first-year students at GVSU are enrolled in these courses. In winter 2022, there were 85 sections of first-year writing. Each librarian was assigned between two and eight sections, then worked with the instructors of those sections to plan library classes.

To support the development of lesson plans that focus on access, the librarians were invited to two one-hour virtual meetings to discuss their work. At these meetings, participants were encouraged to share lesson ideas, offer feedback to others, and ask questions about the study. All librarians involved in the study had already been trained on and used the rubric during two pilot periods during the previous academic year; as such, the focus of these meetings was on the rubric's specific application to the first-year writing program. Previous training focused on building a shared understanding of the rubrics and scores, as well as norming the application of those scores based on the included definitions.[18]

Because the purpose of the study was to look at how a flexible rubric can be used for assessment in many scenarios, no requirements were placed on lesson plans other than that their content should relate to the access objective of the Instructional Programmatic Assessment Rubric, which is described as follows:

> The search process is iterative. There is no one right path to the information researchers seek. There are multiple routes, requiring multiple attempts which may yield a diversity of information sources. Understanding where and how information is organized for retrieval enables students to strategically find and use the most relevant information. This assessment rubric attempts to measure only those search and access strategies, concepts, and skills observable within the limits of the systems in use in higher education at present.

The researchers measured autonomy and pedagogical effectiveness by looking at the number of unique lessons taught. Each librarian was free to teach and assess in the way that felt most authentic to them and the needs of the class. For example, one librarian's lesson featured keyword choice and application, while another emphasized the differences between a Google search and a library subscription database. The lessons, while entirely different, both worked toward the development of access skills as described in the rubric. For the former lesson on keyword choice and application, the librarian assessed student-generated lists of keywords on a topic. That librarian noted where students listed synonyms or related terms, which could show students "identifying alternative strate-

> **Each librarian was free to teach and assess in the way that felt most authentic to them and the needs of the class.**

gies" to try when one does not work (refining).[19] The latter lesson, which taught Web searching in comparison to library database searching, required students to use what they had learned to locate sources on their topics from both. The librarian assessed the process and outcome of that activity by looking at how and where students found topics: if a student was asked to find a tweet, newspaper or magazine article, and a book or book chapter on their topic but used only Google to locate all three, the librarian found that the student "failed to recognize a diversity of information sources and tools" and "struggles to match information needs to search tools" (emerging). Conversely, a student who recognized that a tweet was most easily found through Google whereas a book was more likely to be located through the library's discovery layer "matches information needs" to "appropriate search tools" (progressing) and "begins to recognize a diverse array of information tools" (emerging).[20]

After instruction sessions, librarians at GVSU enter details of their instruction sessions into a form hosted by Springshare's LibInsight. The form collects data about the course code and number, the date, location, and length of instruction, and the learning objectives and assessment outcomes, including the objectives from the Instructional Programmatic Assessment Rubric (for the relevant portion of the form, see Appendix B). The data from this study—number of first-year writing courses and assessment scores for the access objective—are derived from that form. The form collects data at the class or section level to protect student privacy and demonstrate general outcomes. The reported number of students included in the study is based on class registration data because librarians do not take attendance during information literacy instruction. As a result, the number of students impacted by the study is approximate, and the assessment scores are class-level averages as determined by the librarian rather than grades assigned to specific students. The researchers collected instances of access assessment from the winter semester through the LibInsight form and analyzed the data for patterns and frequencies.

Results

Librarians at GVSU taught 73 sessions of first-year writing between January and May of 2022. Of those sessions, 63 included instruction on access. Access was the primary

learning objective for 28 sessions. Assessment data was included in 23 sessions. Within those 23 instances, there were 10 unique lesson plans, taught by 10 unique librarians. Fifteen sessions were taught synchronously in person, five were taught synchronously online, and three were taught through asynchronous materials. Across the 23 sessions, librarians taught approximately 575 students. Librarians scored 14 classes at the progressing level, 7 at the emerging level, and 2 at the refining level. No classes were scored at the accomplished level. Table 1 illustrates the distribution of sessions assessed for access at each level.

Table 1.
Number of courses assessed at each level for the access objective

Rubric column	Number of courses assessed
Emerging (1)	7
Progressing (2)	14
Refining (3)	2
Accomplished (4)	0
Total	23

While this table shows only the sessions relevant to the access objective in first-year writing, Grand Valley State University Libraries uses all rubric data to identify trends in student learning and in what librarians are asked to teach from year to year. For example, in this study, the researchers discovered that access was less frequently the primary learning objective than assumed. The first-year writing library instruction program may use this information to work with classroom faculty to ensure that access skills are taught in the course or guide librarians to emphasize assessment in that area. Assessment data from first-year writing are particularly useful as the majority of first-year students at GVSU enroll in a first-year writing course. Librarians who then teach courses of majority second-year students can use data from first-year writing to support their lesson plans with an understanding of what those students may have already learned or what may need to be revisited. Librarians can also begin to strategically scaffold skills across all class years. Other librarians may work with the same first-year writing class two or three times. Their micro-level assessment data may inform how or what they teach in subsequent classes. For example, if an access-based lesson resulted in a class score of one—emerging—the librarian may choose to reinforce access skills in the next session.

> **Grand Valley State University Libraries uses all rubric data to identify trends in student learning and in what librarians are asked to teach from year to year.**

Discussion and Conclusion

This study began with two research questions. First, how skilled are students in first-year writing classes at accessing information? Fourteen classes were assessed at the progressing level. A student progressing in access "matches information needs and some strategic searching to search tools" and "attempts strategic searching, though not based on search results," and also "fails to recognize a diversity of information sources and tools" and "is unable to identify alternative strategies that can be used when necessary." Progressing might be perceived as a low score (2) on an assignment-level rubric. However, because the programmatic rubric assesses the development of information literacy skills and behaviors, it would be unusual to see a course of majority first-year students score a four (ac-

> . . . using a flexible rubric like the Instructional Programmatic Assessment Rubric is a viable way to maintain autonomy and creativity in a library instruction program while also collecting meaningful course-level assessment data.

complished). Instead, the researchers expect to see these same students move beyond the progressing stage as their education continues. The second research question was: how can a flexible rubric assess student skill level and preserve librarian creativity and autonomy? The cohesion in results, even with separate lessons and assessment techniques across three modalities (in person, online synchronous, and online asynchronous), suggests that using a flexible rubric like the Instructional Programmatic Assessment Rubric is a viable way to maintain autonomy and creativity in a library instruction program while also collecting meaningful course-level assessment data.

The researchers identified several advantages of using a flexible rubric model for this study. As previously mentioned, the instruction librarians maintain a significant amount of autonomy in using their chosen teaching and assessment methods. This also provides them with a high level of flexibility and creativity in designing instructional activities and in how they implement them. The researchers believe that this ultimately leads to better learning outcomes because librarians are providing more authentic instruction. The model also allows for assessment to be more flexibly integrated into individual workflows, creating a generative and sustainable approach. The researchers did not find that autonomy in lesson creation resulted in a wide range of assessment scores, suggesting that a flexible rubric can still provide useful programmatic data.

A limitation of the study was the small dataset. Access was not the primary learning objective taught as often as anticipated; while many librarians taught access as part of their lesson, it was often combined with another objective, such as evaluate or synthesize. The researchers initially selected access as the emphasis for this study because it is a foundational skill for other IL skills and behaviors. Librarians partnered with writing instructors to design lessons, and it is possible that writing instructors preferred sessions focused on another learning objective from the rubric, potentially because they were comfortable teaching access themselves. As a result, though access instruction occurred in many sections, assessment for access skills was lower than expected. Though it reduced

the size of the dataset to do so, the researchers included only those sessions where access was the primary learning objective and assessment data were included. In future studies, the researchers will expand support for team creation of access lesson plans and assessments. Though the researchers did provide this support in the current study, they believe more concrete examples and discussion of what assessment can look like for each rubric objective would be beneficial in increasing engagement and yield more data.

The primary limitation of the flexible rubric model is that the data collected for the study are less standardized than if the librarians had all taught and assessed the same instructional materials. However, librarians at GVSU appreciate the ability to create individual lesson plans that meet their preferences and the needs of the class, and the researchers find this limitation acceptable to assess at the meso level as a trade-off for more engagement with assessment. By significantly reducing the barriers to entry that librarians reported to impact their willingness to assess their teaching, the rubric increased the number of librarians reporting that they employed any kind of assessment in their classes.[21] The researchers also found it necessary to gain buy-in from the librarians throughout the rubric development process and provide continuous education for how to apply the rubric to individual instruction. These needs could be barriers for other academic libraries looking to implement a similar rubric.

There are many possibilities for future research to expand on the findings of this study, including focusing on other rubric learning objectives or comparing the data for access in the first-year writing program to access scores in other areas of the curriculum. While each instruction program is different, the flexible nature of the rubric makes it possible to adapt this model with modifications. Additional studies could further support the use of a flexible rubric to maintain librarian autonomy and provide programmatic assessment data.

Maya Hobscheid is an instructional design librarian at Grand Valley State University in Allendale, Michigan. She can be reached at: hobschem@gvsu.edu, and her ORCID ID is https:// orcid.org/0000-0003-3941-6882.

Anna White is a health sciences liaison librarian at Grand Valley State University. She can be reached at: whitean2@gvsu.edu.

Kristin Kerbavaz is an assessment librarian at Virginia Commonwealth University in Richmond. She can be reached at: kerbavazk@vcu.edu, and her ORCID ID is https://orcid.org/0000-0001-7662-8687.

Appendix A

Instructional Programmatic Assessment Rubric

Rubric authors: Maya Hobscheid, Kristin Kerbavaz, Emily Frigo, Sheila Garcia Mazari, Hazel McClure, Samantha Minnis, and Gayle Schaub

Rubric Preamble

The purpose of this rubric is to internally assess student learning of information literacy to better inform the GVSU Libraries' instruction program. This rubric will not be used to grade individual students or to assess teaching. The rubric is divided into seven information literacy student learning objectives: Inquire, Access, Evaluate, Synthesize, Cite, Manage Emotional States and Cycles, and Library Service Foundations. While these are distinct objectives that can be taught and assessed on their own, there is natural overlap between them; selecting an objective may depend on a variety of factors, including context, intention, and individual outcomes or objectives.

Student agency in research both across and outside the disciplines plays an important role in engaging with this rubric. Therefore, maintaining space for a developmental perspective that centers learning and unlearning based on a learner's shifting relationship with information is essential. All students have real life experiences that inform their perspectives. Their positionality can be beneficial; their age, profession, community, identity, or gender informs what they know. That being said, this rubric does have an inherent positionality of a western higher education perspective on what learning is and how to approach information sources and scholarship.

What's in this document?

This document consists of three components:

- Best Practices
  - This section will provide guidelines for how to use this document, an instruction example, and supplemental resources.

- Preamble to individual rubric rows
  - This explanatory text will address specific areas of interpretation and implementation in each row of the rubric.

- Rubric outcomes
  - There are seven outcomes in the rubric. Each is presented in a different row, accompanied by its preamble.

Best Practices

How to use this document:

- It is not expected that you use every row of this rubric to assess a single activity, or even a single session. Please select a row or two that tie closely to your stated learning objectives.

- Depending on the activity, you may assess students individually or the class as a whole. For example, if your learning activity is a group discussion, you will assess the group and report the general trends you saw. If you ask students to fill out individual worksheets, you will assess individual students and report the trends.
- Rubric assessment should be recorded in the assessment field in the LibInsight Instruction Statistics form. If you are assessing individual students, you do not need to document the individual scores. Instead, report the overarching trends you saw when scoring.
- The Instruction Assessment Toolkit on LINK includes a variety of methods, as well as resources and examples to help you use those methods in your own assessment.
- Review past assessment workshops on LINK for example scenarios of using the rubric.

Example: Concept map activity

- Ask students to create a concept map based on their research topic/question.
- Collect the concept maps at the end of the session. Depending on your learning objectives and what you ask students to document in their maps, you may use the Inquire or Access rows to assess the individual concept maps.
- Record the overarching trends in LibInsight. The scoring breakdown may determine future instructional goals. For example, if the majority of students scored progressing and a couple scored emerging, you may want to collaborate with the instructor to provide additional support for the students who scored emerging.

Questions?

Email Maya Hobscheid: hobschem@gvsu.edu

Inquire

Preamble

Inquiry drives the research process. It is the asking of questions and stating of problems. As developing researchers and users of information, students will ideally recognize the conversational nature of information, find a way into that conversation, and explore their role in it.

Inquiry is often a nonlinear learning process. When you are not familiar with a new topic, it's difficult to know what you don't know.

A student's question and scope will typically evolve as they further engage with their sources and find "gaps" or unearth still unanswered questions.

Objectives	EMERGING (1)	PROGRESSING (2)	REFINING (3)	ACCOMPLISHED (4)
Inquire	Completes research only to meet the requirements of an assignment.	Begins to make connections between research assignments and personal curiosity.	Uses assignments to explore research interests.	Develops a personal research agenda.
	Has difficulty determining a question/statement in the context of a topic within the relevant sources.	Demonstrates some difficulty formulating a question/statement based on the existing sources.	Begins to recognize question/statement in the existing sources.	Defines a clear problem statement or question connected to the relevant sources on a topic through an iterative examination and reexamination of those sources.
	May recognize and seek multiple perspectives on a topic.	Begins to recognize scope of question/statement and information need in relation to research process and other factors.	Recognizes and seeks multiple perspectives in the information gathering process.	Appreciates the factors that determine scope of question/statement and needed information, such as assignment and stage of the research.

Access

Preamble

The search process is iterative. There is no one right path to the information researchers seek. There are multiple routes, requiring multiple attempts which may yield a diversity of information sources. Understanding where and how information is organized for retrieval enables students to strategically find and use the most relevant information. This assessment rubric attempts to measure only those search and access strategies, concepts, and skills observable within the limits of the systems in use in higher education at present.

Objectives	EMERGING (1)	PROGRESSING (2)	REFINING (3)	ACCOMPLISHED (4)
Access	Fails to recognize a diversity of information sources and tools.	Fails to recognize a diversity of information sources and tools.	Begins to recognize a diverse array of information tools and their functions.	Recognizes a diverse array of information sources and tools and their functions.
	Struggles to match information needs to search tools.	Matches information needs and some strategic searching to search tools.	Matches information needs and strategic searching to some appropriate search tools.	Matches information needs and strategic searching to appropriate search tools.
	Does not search strategically.	Attempts strategic searching, though not based on search results.	Searches strategically, sometimes refining searches based on search results.	Searches strategically, refining searches as necessary, based on search results.
	Is unable to identify alternative strategies that can be used when necessary.	Is unable to identify alternative strategies that can be used when necessary.	Is aware of alternative strategies for accessing sources.	Uses alternative strategies to access sources when necessary.

Evaluate

Preamble

The constructed nature of authority, which varies by disciplinary norms, will impact how students engage with the Evaluate rubric. The concept of bias is a cornerstone of this rubric, with the intent of guiding students toward understanding bias as human. In drafting learning objectives, librarians should articulate the specific context of the discipline and/or assignment to account for its influence on the learning process.

Objectives	EMERGING (1)	PROGRESSING (2)	REFINING (3)	ACCOMPLISHED (4)
Evaluate	Does not articulate evaluative criteria.	Begins to articulate evaluative criteria.	Articulates evaluative criteria and begins to consider contexts when selecting appropriate sources.	Uses multiple criteria to evaluate sources; considers social, disciplinary, economic, and personal contexts when selecting appropriate sources.
	Does not recognize the biases or potential biases of a variety of source types.	Begins to recognize the biases or potential biases of a variety of source types.	Recognizes the biases or potential biases of a variety of source types; begins to consider own biases in source evaluation and use.	Recognizes the biases or potential biases of a variety of source types; considers own biases in source evaluation and use.

Synthesize

Preamble

Synthesis is part of an iterative research process. Synthesis often happens after access and evaluate, but it requires returning to previous phases of the process. Often synthesis is assisted by librarians in the one-on-one process, after the research process has begun. At this stage, students are in a position to need richer and more varied sources to explore a topic and examine their positionality in order to contribute their own voices to a scholarly conversation.

Objectives	EMERGING (1)	PROGRESSING (2)	REFINING (3)	ACCOMPLISHED (4)
Synthesize	Information is not integrated with materials from other sources.	Selects some appropriate information to synthesize from multiple sources.	Selects appropriate information to synthesize from multiple sources.	Selects appropriate information to synthesize from multiple sources, including their point of view. Explains the strengths and limitations of sources.
	There is no recognizable relationship between sources.	Uses insufficient sources for the task at hand or inadequately articulates the relationships between multiple sources.	Begins to articulate relationships between sources.	Articulates as the relationships between sources, as well as the intention behind source selection and how that was impacted by their positionality.

Cite

Preamble

In this rubric, citing and citations are limited to a western academic context, which can be separated into three facets: technical, legal, and cultural. Technical aspects of citations include the accuracy of both in-text citations and bibliography. Legal aspects include American copyright law and the understanding of intellectual property. Cultural aspects include interrogating the contextual and constructed understanding of ethical citation use. Cultural aspects acknowledge gaps in representation and validate alternate forms of knowledge creation, including ancestral knowledge.

Objectives	EMERGING (1)	PROGRESSING (2)	REFINING (3)	ACCOMPLISHED (4)
Cite	Cites some of the information sources used, citations may be incomplete or incorrectly formatted. Does not correctly paraphrase, summarize, and quote information sources.	Cites all information sources used, but incompletely or incorrectly formats citations. Inaccurately refers to information sources when paraphrasing, summarizing, and quoting.	Cites all information sources used, creates complete citations with minimal mistakes, and accurately refers to information sources by paraphrasing, summarizing, and quoting.	Completely and accurately cites all information sources used by appropriately paraphrasing, summarizing, and quoting.
			Begins to recognize ethical and cultural perspectives on citation.	Recognizes ethical and cultural perspectives on citation and their impact on the research process.
		Begins to articulate the importance of citation in regards to American copyright law and intellectual property.	Articulates the importance of citation in regards to American copyright law and intellectual property; begins to recognize the role of citation in the scholarly conversation.	Articulates the importance of citation in regards to American copyright law, intellectual property, and the scholarly conversation.

Manage Emotional States and Cycles

Preamble

Researching is an emotional prospect, though it may often be seen as primarily intellectual. Discovering new information may be exciting, depressing, or it may challenge individual world views, and these emotional states can influence the research process itself. Acknowledging this is an important step to managing research. Students approach research as whole people, with past lived experiences that may intersect with research topics and the research process. Encountering world views that negate lived experiences can be upsetting and even traumatizing.

Strategies for managing these kinds of emotional distress include: building in time and space to reflect on and process the information a student finds; seeking feedback to check-in or get an alternate perspective; and pausing or stopping research. These strategies are all valid ways to protect and support your well-being. Managing emotional states is often a nonlinear process and you may need to engage in self-care at multiple points in the research process.

Objectives	EMERGING (1)	PROGRESSING (2)	REFINING (3)	ACCOMPLISHED (4)
Manage emotional states and cycles	Begins to identify emotional reactions to the research rocess, but does not recognize that emotional states follow a pattern related to stages of the research process.	Identifies stages in the research process and emotional states commonly associated with them.	Articulates their emotional responses at various stages in the research process.	Anticipates their emotional response to research.
	Is unaware of available resources for feed-back and self-care.	Identifies various resources for feedback and self-care.	Utilizes resources for feedback and self-care.	Preemptively strategizes resources for feedback and self-care.

Library Service Foundations

Preamble

This row differs from the others because it is not based on one skill. These are the foundational services that benefit students at progressive points in their experiences as undergraduate scholars. Not all students have to have knowledge of all items in each column; these are examples of services that may be useful in that stage of students' academic careers based on the disciplines they are studying and their own areas of research.

Objectives	EMERGING (1)	PROGRESSING (2)	REFINING (3)	ACCOMPLISHED (4)
Library Service Foundations	Student is aware of: ● KM [knowledge management] (including research consultants, digital skills consultants, & Resource Market) ● Library as physical and digital space ● Library search box ● Library guides.	Student is aware of: ● Liaison librarians ● Research consultations ● Library/archive locations ● Knowledge of disciplinary tools/databases/common source types ● Different kinds of materials that are available to students.	Student is aware of and engaging with: ● Document Delivery/MEL [Michigan eLibrary] ● Variety of discipline-specific materials.	Student is aware of and engaging with: ● Student authorship and publication ● Functional areas: scholarly communication, government documents, archives, digital humanities, data literacy, for example.

Appendix B

LibInsight Instruction Form: Assessment Questions

Librarians fill out this form after each class, noting assessment methods and learning objective assessed.

Describe your library instruction assessment, including objectives, methods, and results.

Instructional Programmatic Assessment Rubric Objective

o Inquire
o Access
o Evaluate
o Synthesize
o Cite
o Manage Emotional States and Cycles
o Library Service Foundations
o None

Instructional Programmatic Assessment Rubric Score

- o Emerging (1)
- o Progressing (2)
- o Refining (3)
- o Accomplished (4)
- o None

Session number	Modality	Duration in minutes	Assessment (access score)
01	In-person	75	1
02	Online, asynchronous	50	1
03	Online, asynchronous	50	1
04	Online, asynchronous	50	1
05	Online, asynchronous	50	1
06	Online, asynchronous	50	1
07	In-person	105	2
08	In-person	105	2
09	In-person	45	3
10	In-person	45	3
11	Online, synchronous	50	1
12	Online, synchronous	50	1
13	Online, synchronous	50	2
14	In-person	50	2
15	In-person	50	2
16	In-person	50	2
17	Online, synchronous	30	2
18	Online, synchronous	30	2
19	In-person	50	2
20	In-person	50	2
21	In-person	50	2
22	In-person	50	2
23	In-person	50	2

Notes

1. Mary K. O'Kelly, Jon Jeffryes, Maya Hobscheid, and Rachael Passarelli, "Correlation between Library Instruction and Student Retention: Methods and Implications," *College & Research Libraries* 84, 1 (January 2023): 85–99.

2. Maya Hobscheid and Kristin Kerbavaz, "Flexibility Is Key: Co-Creating a Rubric for Programmatic Instructional Assessment," *Communications in Information Literacy* 16, 1 (June 2022): 24–37.

3. Anne Elizabeth Donahue, "Charting Success: Using Practical Measures to Assess Information Literacy Skills in the First-Year Writing Course," *Evidence Based Library and Information Practice* 10, 2 (June 2015): 45–62; Karen Markey et al., "Testing the Effectiveness of Interactive Multimedia for Library-User Education," *portal: Libraries and the Academy* 5, 4 (October 2005): 527–44; Nancy W. Noe and Barbara A. Bishop, "Assessing Auburn University Library's Tiger Information Literacy Tutorial (TILT)," *Reference Services Review* 33, 2 (June 2005): 173–87; Meggan D. Smith, and Amy B. Dailey, "Improving and Assessing Information Literacy Skills through Faculty-Librarian Collaboration," *College & Undergraduate Libraries* 20, 3–4 (July 2013): 314–26; Doreen R. Bradley and Jo Angela Oehrli, "Assessing Student Learning in Library Instruction: A Faculty Perspective," in *Proceedings of the 2018 Library Assessment Conference,* ed. Sue Baughman, Steve Hiller, Katie Monroe, and Angela Pappalardo (Washington, D.C.: Association of Research Libraries, 2019), 787–95; Rachel Gammons, "Incorporating Critically Conscious Assessment into a Large-Scale Information Literacy Program," in *Critical Library Pedagogy Handbook,* ed. Nicole Pagowsky and Kelly McElroy, vol. 2 (Chicago: Association of College and Research Libraries, 2016), 235–40; Megan Lowe, "The Start/Stop Essay in Instruction and Information Literacy at University of Louisiana at Monroe," *Louisiana Libraries* 69, 2 (Fall 2006): 7–11; Jennifer Nutefall, "Paper Trail: One Method of Information Literacy Assessment," *Research Strategies* 20, 1 (January 2004): 89–98, https://doi.org/10.1016/j.resstr.2005.07.004; Jackie Wolstenholme, "Evidence Based Practice Using Formative Assessment in Library Research Support," *Evidence Based Library and Information Practice* 10, 3 (September 2015).

4. Jackie Belanger, Rebecca Bliquez, and Sharleen Mondal, "Developing a Collaborative Faculty-Librarian Information Literacy Assessment Project," *Library Review* 61, 2 (February 2012): 68–91; Maria T. Accardi, "Teaching Against the Grain: Critical Assessment in the Library Classroom," in *Critical Library Instruction: Theories and Methods*, ed. Maria T. Accardi, Emily Drabinski, and Alana Kumbier (Duluth, MN: Library Juice Press, 2010).

5. Alison J. Head, Alaina C. Bull, and Margy MacMillan, "Asking the Right Questions: Bridging Gaps between Information Literacy Assessment Approaches," *Against the Grain* 31, 4 (March 1, 2021); Gammons, "Incorporating Critically Conscious Assessment into a Large-Scale Information Literacy Program."

6. Craig A. Mertler, "Designing Scoring Rubrics for Your Classroom," *Practical Assessment, Research, and Evaluation* 7 (January 2001): 1–8.

7. Donahue, "Charting Success"; Giovanna Badia, "Holistic or Analytic Rubrics? Grading Information Literacy Instruction," *College & Undergraduate Libraries* 26, 2 (April 3, 2019): 109–16; Alan Carbery and Sean Leahy, "Evidence-Based Instruction: Assessing Student Work Using Rubrics and Citation Analysis to Inform Instructional Design," *Journal of Information Literacy* 9, 1 (June 2015): 74–90; Erin E. Rinto, "Developing and Applying an Information Literacy Rubric to Student Annotated Bibliographies," *Evidence Based Library and Information Practice* 8, no. 3 (September 9, 2013): 5–18; Smith and Dailey, "Improving and Assessing Information Literacy Skills through Faculty-Librarian Collaboration"; Fei Yu, Jan Sullivan, and Leith Woodall, "What Can Students' Bibliographies Tell Us? Evidence Based Information Skills Teaching for Engineering Students," *Evidence Based Library and Information Practice* 1, 2 (June 2006).

8. Megan Oakleaf, "Using Rubrics to Collect Evidence for Decision-Making: What Do Librarians Need to Learn?" *Evidence Based Library and Information Practice* 2, 3 (September

2007): 27–42; Megan Oakleaf, "Dangers and Opportunities: A Conceptual Map of Information Literacy Assessment Approaches," *portal: Libraries and the Academy* 8, 3 (July 2008): 233–53.

9. Laura W. Gariepy, Jennifer A. Stout, and Megan L. Hodge, "Using Rubrics to Assess Learning in Course-Integrated Library Instruction," *portal: Libraries and the Academy* 16, 3 (July 2016): 491–509.

10. Megan Oakleaf, "Staying on Track with Rubric Assessment: Five Institutions Investigate Information Literacy Learning," *Peer Review* 13–14, 4–1 (2011): 18–21.

11. Jackie Belanger, Ning Zou, Jenny Rushing Mills, Claire Lee Holmes, and Megan Oakleaf, "Project RAILS: Lessons Learned about Rubric Assessment of Information Literacy Skills," *portal: Libraries and the Academy* 15, 4 (October 2015): 623–44; Karen R. Diller and Sue F. Phelps, "Learning Outcomes, Portfolios, and Rubrics, Oh My! Authentic Assessment of an Information Literacy Program," *portal: Libraries and the Academy* 8, 1 (January 2008): 75–89.

12. Susan Woitte and Kathleen McCay, "How Cyclical Assessment Can Guide Information Literacy Instruction to Best Serve First-Year Students," *Journal of Academic Librarianship* 45, 3 (May 2019): 315–17; Amy Gustavson, "Using ILIAC to Systematically Plan and Implement a Library Information Literacy Assessment Program for Freshman Classes," *Public Services Quarterly* 8, 2 (May 2012): 97–113.

13. Alexandra Chisholm and Brett Spencer, "Through the Looking Glass: Viewing First-Year Composition through the Lens of Information Literacy," *Communications in Information Literacy* 13, 1 (March 2019): 43–60; Jenny Mills, Claire Wiley, and Judy Williams, "'This is What Learning Looks Like!': Backward Design and the Framework in First Year Writing," *portal: Libraries and the Academy* 19, 1 (January 2019): 155–75.

14. Holly Luetkenhaus, Steve Borrelli, and Corey Johnson, "First Year Course Programmatic Assessment: Final Essay Information Literacy Analysis," *Reference & User Services Quarterly* 55, 1 (September 25, 2015): 49; Woitte and McCay, "How Cyclical Assessment Can Guide Information Literacy Instruction to Best Serve First-Year Students"; Cara Berg, "No Assignment? Just Flip It: The Flipped Classroom in First-Year Library Instruction," *College & Undergraduate Libraries* 25, 4 (October 2018): 372–87; Natalie Haber and Tiffany N. Mitchell, "Using Formative & Summative Assessment to Evaluate Library Instruction in an Online First Year Writing Course," *Journal of Library & Information Services in Distance Learning* 11, 3–4 (July 2017): 300–313.

15. Meredith G. Farkas and Lisa Janicke Hinchliffe, "Library Faculty and Instructional Assessment: Creating a Culture of Assessment through the High Performance Programming Model of Organizational Transformation," *Collaborative Librarianship* 5, 3 (2013): 177–88; Elizabeth Galoozis, "Affective Aspects of Instruction Librarians' Decisions to Adopt New Teaching Practices: Laying the Groundwork for Incremental Change," *College & Research Libraries* 80, 7 (2019): 1036–44; Sara Maurice Whitver and Leo S. Lo, "Asking Questions in the Classroom: An Exploration of Tools and Techniques Used in the Library Instruction Classroom," *Communications in Information Literacy* 11, 1 (July 2017): 185–203.

16. Amanda Kathryn Nichols Hess, "Motivational Design in Information Literacy Instruction," *Communications in Information Literacy* 9, 1 (June 2015): 44–59.

17. Karen Becker, "The Characteristics of Bibliographic Instruction in Relation to the Causes and Symptoms of Burnout," *RQ* 32, 3 (Spring 1993): 346–57; Farkas and Hinchliffe, "Library Faculty and Instructional Assessment: Creating a Culture of Assessment through the High Performance Programming Model of Organizational Transformation"; Galoozis, "Affective Aspects of Instruction Librarians' Decisions to Adopt New Teaching Practices"; Whitver and Lo, "Asking Questions in the Classroom: An Exploration of Tools and Techniques Used in the Library Instruction Classroom."

18. Hobscheid and Kerbavaz, "Flexibility Is Key."

19. Maya Hobscheid et al., "Instructional Programmatic Assessment Rubric," *Library Reports and Communication* 17 (2021), https://scholarworks.gvsu.edu/library_reports/17?utm_source=scholarworks.gvsu.edu%2Flibrary_reports%2F17&utm_medium=PDF&utm_campaign=PDFCoverPages.

20. Hobscheid, "Instructional Programmatic Assessment Rubric."

21. Hobscheid and Kerbavaz, "Flexibility Is Key ."