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Guiding Questions for Assessing Information Literacy in Higher Education

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abstract: Librarians throughout higher education must assess information literacy; however, many are overwhelmed by the prospect of selecting the best assessment for their campus context. This article presents six questions to aid librarians in surmounting this challenge. Are we ready to conduct an information literacy assessment? Why are we conducting this assessment? What are the stakeholder needs? Will the assessment tell us what we want to know? What are the costs of this assessment? What are the institutional implications of this assessment? Armed with the answers to these questions, librarians will be well positioned to make informed assessment choices.

Introduction

Librarians throughout academia need to assess information literacy for three main reasons. First, information literacy assessment data can be directly applied to increase student learning. Second, librarians need to use information literacy assessment data to respond to calls for accountability. Finally, information literacy assessment results can be used to improve library instruction programs. Fortunately, numerous assessment approaches are available. Options for librarians seeking to assess information literacy include self-report measures (surveys, interviews, and focus groups), portfolios, concept maps,¹ classroom assessment techniques,² tests, performance assessments, and rubrics.³ This wide range of available assessments can make the selection of the best one for a specific campus environment complex. The selection of an assessment approach can be simplified by responding to a series of guiding questions (see figure 1). These questions will help librarians identify criteria for choosing the information literacy assessments that best fit their needs.



Figure 1.
Guiding Questions.

1. Are we ready to conduct an assessment of information literacy?	
2. Why are we conducting this assessment?	2a. Are we conducting assessment to increase student learning?
	2b. Are we conducting assessment to respond to calls for accountability?
	2c. Are we conducting assessment to strengthen instructional program performance?
	2d. Are we conducting assessment for a formative or summative purpose?
3. What are the needs of assessment stakeholders?	
4. Will the assessment tell us what we want to know?	4a. Will the assessment establish a baseline?
	4b. Will the assessment reveal new information?
	4c. Will the assessment be trustworthy and accurate? Will the assessment produce reliable results? Will the assessment produce valid results?
	4d. Does the nature of the assessment data (qualitative or quantitative) match stakeholder needs?
5. What are the costs of the assessment?	5a. What time costs will we incur?
	5b. What financial costs will we incur?
	5c. What personnel costs will we incur?
	5d. Will these costs be initial or continuing?



6. What are the institutional implications of the assessment?	6a. Will the assessment support the goals of the overall institution? 6b. How will the assessment results be used by the overall institution? 6c. How might the assessment be misunderstood or misconstrued by the overall institution?
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Are We Ready to Conduct an Assessment of Information Literacy?

Although many librarians recognize the need to conduct information literacy assessment, some may not feel ready to do so. Increasingly, library literature and professional development opportunities are available to librarians who wish to learn more about assessment, and there is no better teacher than first-hand experience. Beyond a basic knowledge of assessment, there are two important elements that ground any information literacy assessment. The first element is an idea, even a rough one, of the information literacy outcomes to be assessed.⁴ For some libraries, this may be the “Information Literacy Competency Standards for Higher Education” or the “Objectives for Information Literacy Instruction: A Model Statement for Academic Librarians.” Others may have campus- or course-specific information literacy goals. The second necessary element is the opportunity for improvement.⁵ As Donald Barclay states, “Unless evaluation will somehow improve the thing being evaluated, it is not worth doing.”⁶ With both outcomes and opportunities for improvement in place, librarians can pursue options for information literacy assessment.

Why Are We Conducting This Assessment?

Assessment of information literacy instruction usually targets one of the following purposes: to increase student learning, to respond to a call for accountability, or to strengthen instructional programs. Librarians seeking to conduct information literacy assessment should identify the major purposes for their efforts. Once articulated, the assessment purpose can guide decision-making throughout the information literacy assessment process.

Are We Conducting Assessment to Increase Student Learning?

For most librarians, the main purpose of assessment is to increase student learning. According to James Popham, “The central mission of all...assessment is (1) to help you make valid inferences about your students so that you can then (2) make better decisions about how to instruct those students.”⁷ Assessment allows librarians to demonstrate their contribution to student learning and the provision of a quality university experience. When instruction librarians become involved in assessment to document the campus-wide impact of library instruction and information literacy,⁸ they “find out whether or not what is taught is useful”⁹ and can demonstrate that students acquire information literacy skills through this instruction.

Assessment not only documents student information literacy skills but also provides important feedback that librarians can use to improve their teaching. Esther Grassian and Joan Kaplowitz affirm that librarians, “assess, evaluate, and revise because we want to find out if our instruction has been effective. In other words, we need to find out how well our goals and objectives have been met. Furthermore, we want to highlight areas where our efforts might be improved for the future.”¹⁰ Sue Sampson writes, “Assessment provides the opportunity to take a fresh look at the classroom experience.”¹¹ To achieve this goal, librarians should select assessments that will provide detailed information about student learning and the effectiveness of teaching techniques.

Are We Conducting Assessment to Respond to Calls for Accountability?

Perhaps the most common purpose for assessment is to respond to a call for accountability from institutional administrators or accreditors.¹² Accreditors, en masse, acknowledge the importance of information literacy skills, and most accreditation standards have strengthened their emphasis on the teaching role of libraries.¹³ As a result, librarians increasingly find themselves involved in accreditation processes. In fact, by spurring librarians to embrace assessment, accreditation may result in a significant shift in the “established library instruction paradigm at many institutions.”¹⁴ Accreditation brings librarians the opportunity to reflect and to “determine whether the library is asking the right questions, collecting useful data, analyzing the data effectively, disseminating the data to those who can benefit, and relying upon data effectively for decision-making and improvement.”¹⁵

Some universities are well prepared for this shift, and the “teaching-learning role of [these] academic libraries is well established, as are the expectations of accreditation agencies that libraries connect their evaluation of collections, resources, and services to educational outcomes.”¹⁶ On other campuses, accreditation demands present a new challenge. As librarians reposition themselves at the center of teaching and learning (and thus accreditation), they may turn to existing records of library effectiveness for help. Unfortunately, much of the data recorded in traditional reports and reviews will not help libraries demonstrate how they have an impact on student learning.¹⁷ As a result, librarians must consider new approaches to assessment, usually without expert guidance since accreditation documents do not generally outline the ways in which librarians might demonstrate the impact of their programs on institutional effectiveness.¹⁸ Without a clear path to follow, librarians need to make thoughtful, reasoned decisions in order to choose assessments that yield accountability data.

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Are We Conducting Assessment to Strengthen Instructional Program Performance?

A third purpose for assessment is to strengthen the quality or performance of a library instruction program.¹⁹ Library literature confirms the role of assessment in program improvement. Samson writes, “Assessment offers a value-added dimension to a library instruction program. It provides a beginning point to ascertain the program’s effectiveness and to guide direction for future instruction.”²⁰ Without assessment, program weaknesses cannot be easily identified and corrected. Lorrie Knight also acknowledges the importance of documenting both the strengths and areas of improvement in library instruction programs.²¹

Specifically, assessment improves the structure of instructional programs and provides opportunities to celebrate programmatic successes. First, assessment can strengthen program structure by connecting an instructional program mission with the mission of



the larger organizational body or institution. Assessment can also be used to reinforce, emphasize, align, or realign activities with a previously defined mission of a program.²² Second, assessment leads to opportunities for celebrating a successful instructional program.²³ Success can be leveraged to form collaborations, find funding, and champion change. Data resulting from assessments help strengthen librarian connections with faculty members.²⁴ Assessment can also support requests to continue or increase funding. This purpose is important for information literacy instruction programs, especially those that must justify their existence or risk losing financial support.²⁵ Even if assessment yields negative results, it can still be used to improve instructional programs. In fact, librarians can use negative results to argue for greater financial support by highlighting where funding could be used to improve the program.²⁶ As Knight suggests, “It is... important to view assessment programs not as ends...but ...as significant sources of information that foster feedback for change.”²⁷ Consequently, librarians should choose assessments that yield result data that are useful for program improvement.

Are We Conducting Assessment for a Formative or Summative Purpose?

When planning an information literacy assessment, librarians should determine whether the results will be used for formative or summative purposes. Formative assessment “deals with programs as they are functioning and tries to foster ongoing improvement for the provider and receiver of the instruction.”²⁸ This approach offers the advantage of making changes during, rather than after, the delivery of instruction.²⁹ Formative assessments that provide insight and help are usually more valuable to learners than summative assessments.³⁰ Summative assessment takes place after instruction is complete.³¹ It is intended to give a final evaluation of an instructional program or student learning at the end of an educational period. Knowing whether an assessment is intended to provide feedback for future improvement or whether its goal is to provide a final evaluation of the instruction effort is essential when choosing an assessment approach.

What Are the Needs of Assessment Stakeholders?

When selecting an assessment tool, librarians should consider the needs of stakeholders, including both the audience to whom that assessment data will be reported and the participants who will undergo assessment. Audiences to whom assessment results are reported need assessment data to be displayed in a format that is easily understood.³² To ensure that audiences understand assessment results, librarians should consider who will see final results and use their knowledge of stakeholders to determine how precise or detailed the results need to be and how quickly the results must be communicated.³³ The National Postsecondary Education Cooperative states:

Applicability of assessment measures relates to the extent to which information on a particular outcome measure meets the needs of multiple stakeholder groups. In other words, to what extent will [the] data generated...yield information that can be used by multiple groups, such as faculty and administrators who wish to improve programs, or government officials and prospective employers who desire documentation of skill level achievement or attainment?³⁴



Finally, librarians undertaking assessment should reflect upon the needs of the stakeholders who are assessed, including how many there are, who they are, and what their assessment experience might be.³⁵ Some assessments are more suitable to certain sizes and types of participant populations. Participants may be unfamiliar with some assessment tools, or they may be in danger of overexposure to others.

Will the Assessment Tell Us What We Want to Know?

Before selecting an assessment to evaluate information literacy instruction, librarians should determine whether the assessment will reveal what they want to know. Assessment methods reveal differing amounts and types of information about information literacy.³⁶ Librarians who understand the strengths and limitations of assessment tools to measure information literacy are better prepared to choose the appropriate assessment method for their needs.³⁷

Will the Assessment Establish a Baseline?

Librarians should consider whether they need a baseline measurement of information literacy. A baseline measurement provides a known level of student achievement against which new measurements can be compared. In some campus environments, comparative data may not be required. In others, a baseline measure offers important benefits to librarians who wish to track student learning over time or to identify changes that result from various instructional methods. These goals can be more easily achieved when baseline data are available. Librarians seeking baseline information should select assessment methods amenable to data comparisons across time or instructional methods.

Will the Assessment Reveal New Information?

When selecting an assessment approach, librarians should consider whether assessments will reveal new information. Because assessment requires considerable effort to plan, collect, analyze, and report, librarians should avoid methods that will not result in new understanding of student learning or instructional programs. Similarly, assessments should not be undertaken unless the results will provide new information to help librarians achieve their assessment purpose.

Will the Assessment be Trustworthy and Accurate?

When planning an information literacy assessment, librarians should choose methods that provide trustworthy and accurate results. To this end, they should consider both sampling and measurement issues.

First, librarians must decide whether to assess a sample or an entire student population. Often, assessment of entire populations is not possible. In these cases, librarians must select a student sample. Happily, “for the purposes of accountability, it is not necessary to assess every student to derive valid estimates of system performance.”³⁸ However, if assessment data will be reported to external audiences, librarians should select an appropriate sample size to produce acceptable confidence levels and intervals. Of course, every assessment situation is unique, and the advice of a campus statistician is invaluable.



Second, librarians who strive for trustworthy and accurate assessments must consider measurability issues. Dean Colton et al. state that measurability is the first focus in choosing an assessment tool, and they define measurability as whether or not the assessment measures what it intends to measure (validity) with consistency (reliability).³⁹ Both aspects of measurability can have a significant impact on the credibility of an assessment method.⁴⁰

- Will the assessment produce reliable results?

There is “nearly universal agreement” that reliability is an important property in educational measurement.⁴¹ Reliability is a measure of consistency.⁴² A reliable measurement can be repeated⁴³ with consistent scoring every time. It is important to establish the reliability of any assessment measure because an unreliable assessment cannot be a valid one.⁴⁴

- Will the assessment produce valid results?

The term “validity” refers to the meaningfulness of an assessment measure.⁴⁵ Librarians must determine whether an assessment measures “what it is intended to measure.”⁴⁶ Joseph Prus and Reid Johnson contend that validity is the “key selection criterion” for any higher education assessment.⁴⁷

Unfortunately, not all assessment options provide high levels of both reliability and validity. Some measures can be replicated and provide consistent results but do not measure what the assessment is intended to measure. Conversely, other assessments capture accurate and relevant results, but their results are inconsistent when repeated. Awareness of these issues should aid librarians in making reasoned and conscious choices among assessment options.

Does the Nature of the Assessment Data (Qualitative or Quantitative) Match Stakeholder Needs?

When seeking an assessment that will reveal what stakeholders want to know about information literacy, librarians must often decide whether a qualitative or quantitative

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assessment approach is preferable. Quantitative assessment techniques provide data in numerical form, whereas qualitative data are more descriptive and usually reported in words.⁴⁸ Of course, both qualitative and quantitative assessments can produce useful results. The

key is to match assessment methods with the needs of stakeholders who will view the information that results from the assessment. Steve Hiller and Jim Self submit that “in a serious assessment, it is often good to have both quantitative results...and qualitative information.”⁴⁹ Others note that, although some stakeholders may prefer numeric results, “qualitative assessment is to be preferred when the nature of the program or its aims can best (or adequately) be measured without the use of numbers or when detailed descriptions provide the best data for altering, judging or continuing, a program.”⁵⁰ Grassian and Kaplowitz remind librarians that “the choice of using quantitative or qualitative



data does not reflect on the rigor of the assessment.”⁵¹ Thus, matching qualitative or quantitative methods to the needs of stakeholders in a particular assessment scenario is the best policy to follow when selecting an assessment.

What are the Costs of the Assessment?

Another consideration in selecting an assessment method is cost.⁵² Ideally, librarians should choose the assessment that best fits their programmatic and instructional needs, but cost is a practical concern that cannot be ignored. Assessment costs come in many forms. Costs may include time and financial and personnel resources. They may be one-time or ongoing expenses.

What Time Costs Will We Incur?

One expense librarians should consider is time—time that is required to plan, find and/or develop tools, conduct the assessment, analyze findings, report results, and implement decisions. Sadly, lack of time is one of the most common reasons for not conducting assessment at all.⁵³ This underscores the need to consider carefully the time a particular assessment approach will require.

What Financial Costs Will We Incur?

Beyond the time involved in conducting assessments, a second expense is the financial cost. Librarians should be aware of not only the purchase price of some assessment tools but also additional costs, including materials and maintenance.

Furthermore, there is an opportunity cost associated with assessment. The financial resources associated with assessment cannot be used to pursue other library goals. As a result, it is imperative that real value be gained from assessment, otherwise it may be hard to rationalize or defend the costs of future assessment efforts.

What Personnel Costs Will We Incur?

In addition to time and financial costs, librarians should consider the personnel costs of various assessment approaches. For example, some assessments may require the hiring of new staff who will need to be trained and supervised. Alternatively, temporary staff or a consultant may be hired. In this case, librarians should consider how to transfer the specialized knowledge of temporary hires to permanent staff. Another option is to provide professional development or other training opportunities for existing staff if it is possible for them to either integrate the additional assessment workload into their regular job tasks or replace old duties with new assessment responsibilities.

Will These Costs be Initial or Continuing?

When weighing the expense of assessment, librarians should also consider whether the costs are initial or continuing. Initial costs are those of selecting, purchasing, starting up, and managing a new assessment. Continuing costs are those that accrue from using the assessment on an ongoing basis. Both types of costs are important to consider. Some



assessment methods appear to have few upfront costs but require significant resources to analyze and report. Others are expensive to purchase or produce in the beginning but require little to continue over time.

What are the Institutional Implications of the Assessment?

Finally, librarians must choose among information literacy assessments while considering not only the needs of the library but also the needs of the overall institution. Thinking of assessment within a campus context allows librarians to engage in institutional discussions, form partnerships with academic departments and student support programs, and become an integral part of student learning in higher education.

Will the Assessment Support the Goals of the Overall Institution?

Although it is natural to think first of the benefits an information literacy assessment offers to the library, librarians should consider whether an assessment approach will

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support campus-wide teaching and learning goals. An assessment that benefits only librarians may be critical for internal instructional decision-making, however, one that benefits both the library and the overall institution may be preferable. On many campuses, librarians are omitted from discussions of student learning.

Librarians can address this omission by

selecting assessments that yield data that inform campus discussions of what students know and can do as well as how well the institution is achieving its mission.

How Will the Assessment Results be Used by the Overall Institution?

Librarians who strive to select an assessment approach that can be shared throughout the larger institution should anticipate how a given assessment integrates with the campus-wide approach to assessment. Some institutions may articulate the importance of information literacy in their mission or general education requirements; others may need to respond to accreditors that expect evidence of student learning in this area. Some institutions may have historical preferences for a particular assessment method or way of presenting documented results. This type of institutional knowledge should be used to inform librarians' assessment selection process.

How Might the Assessment be Misunderstood or Misconstrued by the Overall Institution?

Some librarians may have concerns about sharing assessment results with the larger institution. Certainly, individual campus assessment cultures will have an impact on how librarians should proceed in this area, but librarians can take an active role in creating, building, and maintaining a healthy culture of assessment that balances transparency with the protection of individual students and staff. To avoid difficulty, librarians should

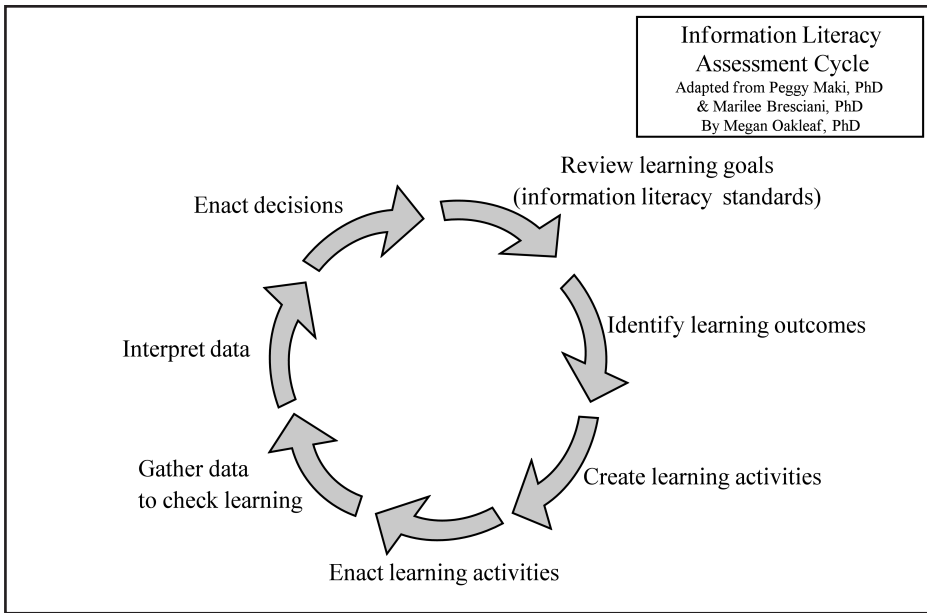


Figure 2. Information Literacy Assessment Cycle

follow appropriate internal review board privacy procedures. They should also take care to record data and present results in the context of the effort to achieve goals and outcomes, rather than the performance of individual staff members or programs.

Conclusion

So, Which Assessment Approach Should We Choose?

When selecting an assessment approach, librarians should strive to follow best practices whenever possible. Using multiple methods and practicing continuous assessment are among the best practices to consider. Employing a variety of methods acknowledges that “different assessment methods have particular strengths for assessing some knowledge, skills, and abilities, but are not ideal for others.”⁵⁴ By using multiple methods, librarians gain a variety of assessment feedback. Also, this approach allows librarians “to obtain maximum validity and to reduce potential error or bias associated with any one approach.”⁵⁵

Practicing continuous assessment allows librarians to “get started” with assessment rather than waiting to “get it perfect” (see figure 2). Each repetition of the assessment cycle allows librarians to adjust learning goals and outcomes, vary instructional strategies, experiment with different assessment methods, and improve over time.⁵⁶ As a result, librarians can and should use a variety of assessment approaches.

Of course, there is no one “right” assessment approach. All libraries have different needs—most strive to increase student learning, some need to respond to calls for accountability, and many seek to improve instructional programs. Stakeholder needs



and interests in student information literacy skills vary. Some librarians have plentiful resources to cover the costs of assessments and healthy campus assessment cultures, but some do not. Faced with different realities, librarians will no doubt select different assessment approaches. It is hoped that these guiding questions will demonstrate that a "one size fits all" approach to information literacy assessment is not an appropriate goal, rather, these questions are intended to facilitate the selection of assessments that are tailored to the needs of students, librarians, and faculty of individual institutions.

The opinions expressed in this article are those of the authors and do not reflect the view of the National Oceanic and Atmospheric Administration or other parts of the U.S. government.

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