

WRITING INFORMATION LITERACY ASSESSMENT PLANS

A Guide to Best Practice

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ABSTRACT

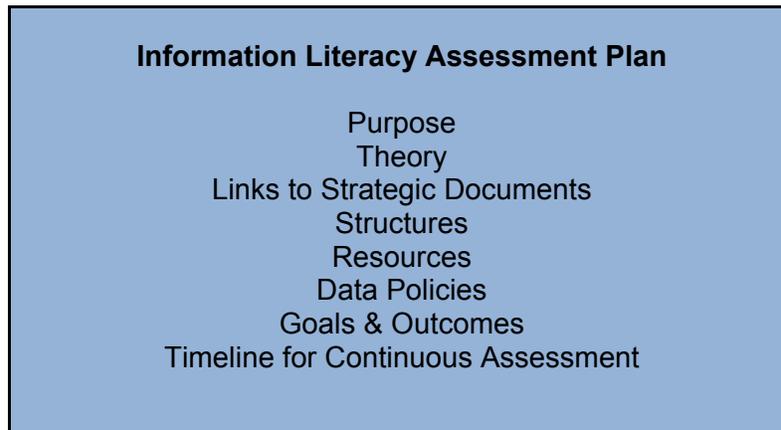
Academic librarians throughout higher education add value to the teaching and learning missions of their institutions through information literacy instruction. To demonstrate the full impact of librarians on students in higher education, librarians need comprehensive information literacy assessment plans, composed of instructional program-level and outcome-level components, that summarize the purpose of information literacy assessment, emphasize the theoretical basis of their assessment efforts, articulate specific information literacy goals and outcomes, describe the major assessment methods and tools used to capture evidence of student learning, report assessment results, and highlight improvements made as a consequence of learning assessment.

INTRODUCTION

Academic librarians throughout higher education add value to the teaching and learning missions of their institutions through information literacy instruction. In the present climate of accountability, librarians face heightened pressure to demonstrate that value with evidence. Assessment approaches including tests, performance assessments, and rubrics

(Oakleaf, 2008) all provide a partial picture of the contribution academic librarians make to teaching and learning, but no one assessment method is a panacea (Oakleaf & Kaske, 2009). To demonstrate the full impact of librarians on students in higher education, librarians need comprehensive information literacy assessment plans, composed of instructional program-level and outcome-level components, that summarize the purpose of information literacy assessment,

FIGURE 1 — PROGRAM LEVEL ELEMENTS



emphasize the theoretical basis of their assessment efforts, articulate specific information literacy goals and outcomes, describe the major assessment methods and tools used to capture evidence of student learning, report assessment results, and highlight improvements made as a consequence of learning assessment.

PROGRAM-LEVEL ELEMENTS

Information literacy assessment plans should include instructional program-level elements including assessment purposes, theories, links to strategic documents, structures, resources, data policies, goals, outcomes, and a timeline for continuous assessment (see Figure 1).

Purpose

Information literacy assessment plans should begin with a clear statement of purpose. Why are academic librarians engaging in assessment? What do they hope to gain from their assessment efforts? Generally, information literacy assessment has three main purposes: to increase student learning, to strengthen instructional programs, and to answer calls for accountability (Oakleaf & Kaske, 2009). Assessment plans might include other externally-focused purposes: articulating the

connections between information literacy assessment and institutional strategic documents; describing synergies with campuswide assessment efforts; “telling the story” of information literacy learning; or facilitating the reporting of assessment results to stakeholders. Assessment purposes may also be internally-focused. Internally-focused assessment purposes include initiating and maintaining an ongoing discussion of student information literacy learning, integrating assessment into the regular workflow of teaching librarians, and aligning the instructional work of the library with the mission of the overarching institution.

Theory

Through information literacy assessment plans, librarians can demonstrate that assessment, educational, and motivational theories drive their assessment practices. Three assessment theories underpin most assessment practices at many libraries.

1. *Assessment for learning* theory states that “good teaching is inseparable from good assessing” (Wiggins, 1996, p. V-6: 8). According to this theory, assessments are tools for learning, and students can learn by completing an

assessment (Arter, 1996). Thus, assessments should be thought of not just as evaluation, but as a “primary means” of learning (Battersby, 2002).

2. *Assessment as learning* theory suggests that connections between teaching and assessment can “lead to a substantial increase in instructional effectiveness” (Popham, 2003, p. 1) by helping students learn how to learn.
3. *Assessment as learning to teach* theory asserts that the practice of focusing on student learning goals and outcomes, assessing student attainment of learning outcomes, and implementing instructional changes to increase student learning leads to the ongoing improvement of librarian teaching skills (Oakleaf, 2009).

In addition to assessment theory, educational theories, such as behaviorist, constructivist, or social constructivist learning theory, and motivational theories that emphasize intrinsic or extrinsic student motivations often drive information literacy assessment practices. (Note: For more information on educational and motivational theories, see the *Encyclopedia of Education* edited by James W. Guthrie). Whatever theories a library adopts, articulating them in an assessment plan is a valuable practice.

Links to Institutional and Library Strategic Documents

An important element of any information literacy assessment plan is a clear link to the strategic documents of the overarching institution, especially its mission, vision, and general learning outcomes. The connection between information literacy instruction programs and institutional strategic documents is one that is often assumed by librarians, but rarely articulated beyond the library organization. In 1998, Gratch Lindauer identified the lack of linkages between information literacy programs and campuswide strategic documents as a significant problem,

stating “the future vitality of libraries in academia will be dependent on whether they can dynamically and continually prove their value to the overall educational endeavor” (p. 546). Part of the problem is that librarians “do not organize their data ... in ways that are accessible or meaningful to academic administrators and accreditation teams, nor do they use language that reflects what is used in campuswide planning documents” (Gratch Lindauer, 1998, p. 546). A decade later, Stuart (2008, p. 8) lists the omission as an “unresolved question” of information literacy instruction programs. He suggests that librarians ask themselves, “Are the goals and aspirations that drive instruction ... reflective of or linked to the broader mission of the university?” Concrete answers to this question belong in this section of an information literacy assessment plan.

Structures

Preliminary investigations indicate that a lack of organizational “structures” to facilitate assessment is a significant barrier to the collection, analysis, and use of information literacy assessment data (Oakleaf & Hinchliffe, 2008). Librarians who engage in assessment require support for their efforts; describing the structures that exist to bolster or oversee their work is an appropriate element of an information literacy assessment plan (Walvoord, 2004). Structures to list in an assessment plan might include assessment committees or coordinators, institutional research offices, program review committees, accrediting organizations, and professional associations.

Resources

In addition to organizational structures, assessment plans should delineate the resources allocated to support assessment efforts. Such resources might include budget amounts that can be spent on initial needs such as hiring consultants, registering for professional development opportunities, securing statistical or assessment management packages, or purchasing standardized assessments. The resources section may also describe ongoing needs such as salaries of new staff hires, local development costs for materials (physical or

electronic) used to gather assessment data, or reallocation of time to allow existing staff to add assessment duties (Oakleaf & Kaske, 2009).

Data Policies

In order to protect the rights of students and librarians, assessment plans should include a statement of relevant data policies. To protect students, librarians should consider institutional review board (IRB) practices and policies for removing personally identifying information (PII) from student assessment records. To protect librarians, assessment plans should include policies that govern data gathering, storage, access and reporting, as well as use of data in employee performance appraisals.

Goals & Outcomes

A list of agreed-upon overarching goals and specific, measurable learning outcomes is a necessary element of any assessment plan. On some campuses, goal and outcome lists may include the Association of College and Research Libraries (ACRL) *Information Literacy Competency Standards for Higher Education* (ACRL 2000), or the *Objectives for Information Literacy Instruction: A Model Statement for Academic Librarians* (ACRL 2001). On others, information literacy outcomes may be derived from the *Framework for 21st Century Skills* (Partnership for 21st Century Skills, 2009) National Educational Technology Standards (ISTE 2009), campus-specific general education requirements, or other local documents. In addition to listing information literacy goals and outcomes, librarians should also align them with the goals and outcomes of individual academic departments, colleges/divisions, and the overall institution, as well as applicable regional or professional accreditation standards (Bresciani, 2009) and employer expectations (Ruhland & Brewer, 2001, p. 167).

Timeline for Continuous Assessment

Because assessment is an ongoing, cyclical process, assessment plans should include a timeline describing the schedule for assessing and reassessing individual outcomes. The Information Literacy Instruction Assessment

Cycle (ILIAC) is a helpful tool for conceptualizing the iterative process of learning assessment (Oakleaf, 2009). The timeline for continuous assessment should decrease librarian assessment anxiety by articulating realistic plans for upcoming assessments, spacing assessment duties over time, and recognizing that a “one at a time” approach to outcome assessment is better than an “everything now, nothing later” approach. It encourages librarians to reflect on the best opportunities for timely assessments, including upon matriculation, the completion of a required set of courses, graduation, or employment (Maki, 2002).

OUTCOME-LEVEL ELEMENTS

In addition to program-level components, information literacy assessment plans should include elements that describe the assessment of each outcome (see Figure 2).

Target Audience

For each outcome, information literacy assessment plans begin with a target audience. While any outcome is likely to be taught to a wide variety of student audiences, in an assessment plan, it is important to isolate specific audiences for which an outcome is most significant and a learning assessment is appropriate and necessary. For a given outcome, a target audience might be first year students, international students, or students in a particular course or major. It may not be possible to assess the target audience as a population; indeed, only a small sample may be assessed. However, the identification of target audiences is a necessary step in creating a workable outcome assessment plan.

Opportunities for Learning

An assessment plan should identify the main opportunities for librarians to teach (and students to learn) each outcome. Examples may include online tutorials, individual course assignments, one-shot instruction sessions, or for-credit information literacy courses. The list of teaching opportunities may be formatted as a curriculum map, an approach recommended by Maki (2004) and shown in Figure 3. The

FIGURE 2—ASSESSMENT PLAN OUTLINE

Information Literacy Assessment Plan	
Purpose Theory Links to Strategic Documents Structures Resources Data Policies Goals & Outcomes Timeline for Continuous Assessment	
Outcome 1 1.1 Target Audience 1.2 Opportunities for Learning 1.3 What is Known 1.4 What is Unknown 1.5 Methods/Tools for Evidence Collection 1.6 Pilot Recommendations 1.7 Analysis of Evidence 1.8 How Assessors Know The Outcome Has Been Met 1.9 Result Scenarios & Decision Making Indicators 1.10 Responsible Parties 1.11 Tasks & Timeline 1.12 Resources Required 1.13 Results 1.14 Decision Makers 1.15 Reporting Suggestions 1.16 Decisions & Recommendations 1.17 Alternative Methods/Tools	Outcome 2 2.1 Target Audience 2.2 Opportunities for Learning 2.3 What is Known 2.4 What is Unknown 2.5 Methods/Tools for Evidence Collection 2.6 Pilot Recommendations 2.7 Analysis of Evidence 2.8 How Assessors Know The Outcome Has Been Met 2.9 Result Scenarios & Decision Making Indicators 2.10 Responsible Parties 2.11 Tasks & Timeline 2.12 Resources Required 2.13 Results 2.14 Decision Makers 2.15 Reporting Suggestions 2.16 Decisions & Recommendations 2.17 Alternative Methods/Tools

FIGURE 3 — CURRICULUM MAP EXAMPLE

Information Literacy Curriculum Map I = introduce, R = reinforce, M = master	New Student Orientation	International Student Welcome	First Year Composition	COM 101	BIO 202	Study Abroad	Senior Capstone
Students will be able to identify keywords that represent a research topic.		I	I		R	R	M
Students will be able to identify article databases relevant to their major field of study.			I	R	R	R	M
Students will be able to distinguish popular from scholarly sources.	I		I	I	R		M
Students will be able to cite sources according to standard citation styles.	I	I	R	R	M		M

learning opportunities section of an assessment plan encourages librarians to reflect on whether “they provide sufficient educational opportunities...to develop the desired outcomes” (Maki, 2002, p. 9).

What is Known

Because assessment can be time consuming, assessment efforts should focus on gathering new information about what students know or are able to do (Oakleaf & Kaske, 2009). To avoid exerting effort on assessments that provide no new information, librarians should conduct an “assessment audit” to identify assessment methods and tools already in place and describe what previous assessments have revealed to date (Walvoord, 2004, p. 11).

What is Unknown

Similarly, it is good assessment practice to articulate what librarians do not know about student achievement of information literacy outcomes (Rutner & DiPasquale, 2009). In this section of the assessment plan, librarians should list the information they seek to learn from their

assessment efforts. For clarity, librarians may express their information needs as research questions; returning to these research questions will help librarians close the gaps in their knowledge of student learning.

Methods/Tools for Evidence Collection

Information literacy assessment plans should include detailed descriptions of the primary methods and tools used to assess individual outcomes. Assessment methods and tools may include surveys, focus groups, interviews, observations, tests, rubrics, or performance assessments (see Figure 4).

In addition to listing the main approaches to assessment, librarians should list the specific survey questions, test items, worksheet sections, or other components of methods and tools that assess individual outcomes. It is also a good idea to spell out the rationale for selecting each measure (Walvoord, 2004) and acknowledge any limitations of the assessment approach (Bresciani, 2009).

FIGURE 4 — PERFORMANCE ASSESSMENT EXAMPLES

<ul style="list-style-type: none"> research journals reflective writing “think alouds” self or peer evaluations research drafts or papers open-ended question responses works cited pages annotated bibliographies speeches multimedia presentations posters 	<ul style="list-style-type: none"> exhibits group projects performances portfolios library assignments worksheets concept maps citation maps tutorial responses role plays lab reports
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Pilot Recommendations

Librarians should plan pilot tests for their information literacy assessment methods and tools. By including explicit suggestions for pilot testing assessment approaches in an assessment plan, librarians greatly decrease the likelihood of deploying an assessment that fails to yield useful information about student learning.

Analysis of Evidence (Data Plan)

Research indicates that some librarians plan the initial stages of information literacy assessment, but encounter barriers in analyzing their data (Oakleaf & Hinchliffe, 2008). As a consequence, librarians should create and record plans for analyzing assessment results. Considerations may include forms for collecting assessment information, statistical packages for computing results, or strategies for coding qualitative data.

How Assessors Know the Outcome Has Been Met

In this section, librarians should include a description of what achievement of each outcome “looks like.” What behaviors will students exhibit? What test results can be anticipated? What criteria will their research papers be expected to meet? If rubrics are used to assess information literacy learning, the highest performance level described on the rubric is a helpful guide to describing how assessors will know students have met the learning outcome. If other institutional or national data is available to interpret, benchmark, or compare results with other relevant student populations, that information should be included as well. Furthermore, librarians can record a list of colleagues who can help determine whether an outcome has been achieved, such as subject-specialist librarians, writing center professionals, faculty at other institutions, alumni, or employers (Maki, 2002).

Result Scenarios & Decision Making Indicators

Often, even before an assessment is conducted, librarians can anticipate the results that are likely to occur. For each outcome included in

an assessment plan, librarians should describe several likely result scenarios and anticipate data points that may indicate that a specific decision should be made to improve student learning in the future. After initial assessments take place, librarians can refine the result scenarios. For example, librarians who teach instruction sessions about citation styles and assess student reference lists for evidence of learning might anticipate that some students will not accurately follow format requirements. In advance of the assessment, librarians might tentatively determine that an acceptable rate of format accuracy is 75% and treat that data point as a decision making indicator. Librarians may decide to revise future lesson plans or develop an “emergency re-teaching plan” if fewer than 75% of students can produce accurately formatted citations. After the assessment, librarians may revisit the decision making indicator and revise it if necessary. Even if initial expectations for student learning prove to be unrealistic, anticipating result scenarios and decision making indicators increases the likelihood that assessments will be actionable.

Responsible Parties

Outcome assessment is often a duty shared by multiple people in a library organization, and assessment plans should list all responsible parties. For example, an instruction coordinator might plan assessments at macro-level, other reference librarians may deliver instruction and assessments on a smaller scale, and systems librarians may maintain statistical programs or manage assessment information databases. It is also important to consider the responsibilities of library employees who are indirectly involved in assessment, by covering duties for their colleagues who take on assessment duties. In addition, individuals outside the library may be included in a list of responsible parties. For instance, institutional research professionals may administer campuswide surveys or capture retention rates that are relevant to information literacy assessment efforts.

Tasks & Timeline

Any assessment method or tool requires at least five stages of work: preparation, deployment,

analysis, reporting, and action. The tasks and timeframes involved in each of these stages need to be planned in detail. This section of the assessment plan may include standard project management tools such as Stage-Task-Activity schedules, Gantt charts, and PERT diagrams (Allan, 2004).

Resources Required

It is important to analyze the necessary resources of any assessment approach. Librarians should give careful consideration to the materials, spaces, collaborative partnerships, finances or other resources needed to conduct effective assessments. Because resources are usually limited, librarians may need to reallocate resources from other library services or prioritize some outcome assessments over others.

Results

The results section of the plan describes outcome assessment findings. Because many assessments generate vast amounts of data, librarians may choose to record summaries of findings or limit the data to include only the most significant results.

Decision Makers

The decision maker section of an information literacy assessment plan lists the individual stakeholders or groups that receive the assessment results and are empowered to make decisions based on them. Decision makers may include instruction coordinators, reference librarians, library administration, departmental faculty, or institutional research personnel.

Reporting Suggestions

In addition to identifying the decision makers who will receive assessment reports, librarians should also understand the information needs of decision makers. The reporting suggestions section of the assessment plan should include recommendations for sharing assessment results like decision maker preferences for qualitative or quantitative data, ideas for creating graphic representations, examples of assessment executive summaries, or campuswide templates for data reporting. Librarians should also

consider the information needs and reporting preferences of other stakeholders, including students and parents (Harada, 2005).

Decisions & Recommendations

The overriding goal of assessment is to make changes that increase student learning or improve assessment processes, and librarians should use assessment plans to document the decisions and recommendations that create those changes. In this section of the assessment plan, librarians should record the decisions made as a consequence of each assessment, even if that decision is to not take action at a particular time. When action is merited, the assessment plan should list the recommendations for changes to instruction or upcoming assessment efforts. Librarians should also identify the parties responsible for enacting decisions and recommendations, gaining the required resources, and creating a reevaluation plan to check for improvement (Bresciani, 2009). This record of decisions and recommendations creates a history that informs future assessments. It also supplies important information for other documents such as annual reports, library newsletters, faculty meetings, or student media advertisements that publicize the impact of library instruction on student learning and advocate for increased use of information literacy services.

Alternative Methods/Tools

For each outcome, the last element to include in an assessment plan is a list of alternative methods or tools. Including alternative approaches ensures that another assessment can be substituted with minimal difficulty if the primary assessment methods or tools are not feasible for any reason.

TOOLS

In text-only format, information literacy assessment plans can be lengthy and linear documents. For this reason, librarians may wish to augment text files with additional tools designed to manage assessment data. Commercially-available assessment management systems include WEAVEonline

(<http://www.weaveonline.com/>), TracDat by Nuventive (http://www.nuventive.com/products_tracdat.html), eLumen (<http://www.elumen.info/>), and the Blackboard Outcomes System (<http://www.blackboard.com/Teaching-Learning/Learn-Capabilities/Outcomes-Assessment.aspx>). Librarians may also wish to design their own assessment database systems using open software products like ZOHO (Gilchrist, 2008).

CONCLUSION

Academic librarians who engage in information literacy instruction have a very real impact on the teaching and learning missions of the institutions they serve. However, to demonstrate their impact, librarians need comprehensive information literacy assessment plans made up of both program-level and outcome-level components that:

- articulate the purposes of assessment,
- reveal the theoretical underpinnings of assessment efforts,
- list information literacy goals and outcomes and align them with other institutional documents,
- describe the assessment methods and tools used to gather evidence of learning,
- capture and report assessment results, and
- emphasize the improvements made to teaching, learning, and future assessments.

Information literacy assessment plans that contain these elements will guide academic librarians to best practices and, ultimately, demonstrate their impact, serve their students, and support their institutions.

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