



Instruction and Assessment Management

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By Amanda Izenstark & Jackie Belanger

Overview and Definition

As libraries' instruction responsibilities grow and the need to measure the impact of library instruction on student learning increases, it is becoming more important for academic librarians to find systems that can help manage teaching schedules, generate instruction data, and assist in the assessment of student learning.

For the purposes of this document, an instruction management system is defined as any system or tool (formal or informal, electronic or paper-based) used by librarians to schedule and manage instruction and report instructional data. An assessment management system (or AMS, as they are often termed) is an "electronic system or structure" that facilitates the gathering and reporting of assessment data on student learning outcomes (Shupe 2007, 51). "Assessment management system" is a more formal system designation, and does not generally pertain to how libraries manage information such as student feedback surveys and data from classroom assessment techniques (generated by minute papers, "clickers", etc.). Libraries may rely on one or more tools to manage and track instruction and assessment information, ranging from familiar productivity software to tools hosted in the cloud.

Instruction and assessment management systems are usually not linked, and, while most libraries have some system for managing instruction information, the use of assessment management systems is not as widespread. This document discusses these systems in tandem, as both are becoming increasingly essential for the efficient management and delivery of an instruction program.

Basis for Current Interest

Academic libraries are frequently required to provide statistics regarding the number of classes led, the levels of classes taught, the number of hours spent with students, and the material covered in instruction sessions. Having complete and accurate statistics makes compilation of annual reports, accreditation documents, and future planning easier. Collecting and manipulating data, however, can be confusing and time-consuming for those without access to sophisticated recording tools or a background in statistics. Recently, though, newer and more widely available tools (including proprietary, home-grown, and freely available tools) now provide opportunities to simplify the process of collection, manipulation, and presentation of instruction statistics. In addition to the need for a system to manage instructional data, many libraries are also experiencing greater demands from faculty for instruction sessions (often at the same time of shrinking budgets and staff numbers) and, as a result, are developing new ways to simplify the requesting and scheduling of library sessions.

Beyond the reporting of instructional statistics that point to the number and kinds of instruction sessions taught, the [*Value of Academic Libraries Report*](#) highlights the need for libraries to assess instruction and demonstrate how their instructional activities contribute to student learning. While many libraries are assessing classroom teaching (and keeping track of assessments such as student feedback surveys), these approaches are not always ideal ways for libraries to assess student learning outcomes across an instructional program. Managing and reporting assessment data – and linking library outcomes to wider institutional student learning outcomes and data (such as student GPA) – is an ongoing challenge facing many academic librarians. Assessment management systems can be one tool to help libraries collect and manage data relating to student learning outcomes (Oakleaf 2011, 45-6).

Current Applications in Academic Libraries and Higher Education

Academic libraries are using instruction management systems for a variety of collecting and reporting functions. Both proprietary products (such as [DeskTracker](#) and Springshare's [LibAnalytics](#)), as well as home-grown systems, standard software packages, or readily available tools (such as Excel Spreadsheets, Google Docs, and Google Forms), enable individual instruction librarians to input basic information such as the date and type of instruction session, the number of attendees, material covered, length of session(s), as well as other related elements outside of the actual classroom instruction, such as the creation of a course guide or other instructional materials, prep time (including consultation time with faculty), and assessment activities such as time spent on feedback on student work completed in class. Many instruction management systems can also enable librarians to select (often in the form of a simple check box) which information literacy learning outcome(s) were met during the session.

Once this information is entered into a system, it is possible for both instructional heads and individual librarians to generate reports. These reports provide basic data such as total number of instructional sessions, and are often used for annual reports, accreditation purposes, planning, as well as tenure and promotion packages. However, additional data, such as preparation time, can also help to reveal the often hidden labor that goes into instruction beyond the one-hour in-person session. This can be useful for raising awareness about the actual costs for library instruction, and, in turn, for advocating for greater resources. Data about learning outcomes met within individual sessions can also help librarians understand the broader picture of instruction across a curriculum or program and determine if instruction is being targeted effectively.

Instruction management systems do not need to be limited to classroom instructional information, however. Many of these systems and tools can be used for a wide variety of reporting functions, including reference and instruction statistics, as well as the recording of individual consultations with students and faculty. Using one system for multiple data gathering purposes can make

reporting of information across all instructional scenarios much simpler.

The use of assessment management systems is growing rapidly at higher education institutions across the U.S. Many colleges and universities are either developing home-grown systems or are using propriety systems such as [WeaveOnline](#), [TracDat](#), [eLumen](#), [Blackboard Learn for Outcomes Assessment](#), and [Waypoint Outcomes](#). Some of these tools have specific features librarians may find useful. Waypoint, for example, enables scoring of student work according to rubrics. Others can be integrated into the institution's learning management systems.

While libraries have the option of developing or purchasing their own system, these systems appear to work best when implemented at a broader institutional level, not only because of costs, but also because the systems are most useful in bringing together and managing all data about student learning in one place.

Applications in Academic Library Instruction

General Tools Used

To get a sense of how practitioners are managing and assessing instruction, the authors sent an email in September 2011 to ACRL's Information Literacy Instruction Discussion List (ILI-L mailing list). For scheduling, responding librarians indicated that they use local calendaring software as well as web-based applications such as Google. For tracking the types and content of sessions, librarians use standard survey/spreadsheet tools ranging from paper to [Google Forms](#) and [SurveyMonkey](#). For gleaning feedback from attendees and faculty, respondents noted that they use paper and electronic survey tools, but also campus-specific options and features of local learning management systems.

Scheduling Classes & Keeping Track of Numbers

Some institutions use internal tools to track instruction statistics. UCLA, and the [University of California at Irvine](#) use internal statistical tools that require logging in to report statistics. Not all

institutions have such resources, though, so free or low cost alternatives can be appealing.

In an emailed response to the ILI-L request dated September 15, 2011, Patricia Watkins from Embry-Riddle Aeronautical University noted that she and her colleagues keep an Excel spreadsheet on a shared drive to track classes, the date offered, the librarian teaching, and the number of students who attended.

In another response on the same day, Felicia Palsson explained that at Sonoma State University, librarians schedule their sessions using Outlook, but use Google Forms to collect instruction data. The data is used within Google Spreadsheets or exported as an Excel file for further analysis. Some librarians, like those at [Johnson & Wales' Providence Campus](#) and [Thomas Nelson Community College](#), have combined Google Forms, Google Calendar, and LibGuides to field instruction requests and show availability.

Assessing Student Learning Outcomes & Managing Assessment Data

At Western Washington University (WWU), the library is using a homegrown assessment management system developed at the institutional level (created by their Administrative Computing department and the WWU Wooding College of Education). Librarians have been able to input data about information literacy outcomes from their four-credit "Introduction to Library Strategies" course into this system (Smith 2011). Smith notes that using this system has enabled librarians to participate in wider campus conversations at curriculum committees about the assessment of learning outcomes, and has also been valuable to "spark conversations [among librarians] about the different approaches and content each one of uses in our library instruction classes." (email message to authors, January 9, 2012).

Cumberland County College - including its library - uses Nuventive's TracDat. The library at Cumberland County College uses the system to manage its assessment plan and learning outcomes. In using the institutional system, the library is able to link its own assessment goals and outcomes to the College strategic plan, institutional assessment goals, and general education goals. This approach helps the library to demonstrate

more clearly both how students are meeting the library learning outcomes, but also how the library contributes to overall student success and institutional effectiveness (Patti Schmid, email message to Megan Oakleaf, November 2, 2010).

Potential Value

Although instruction and assessment management systems are not used directly in classroom instruction (and so are generally not visible either to faculty or students in the ways that learning technologies are), both types of systems can ensure the efficient operation of an instruction program. Both systems can also directly help to improve teaching by enabling librarians to understand if their instruction is meeting stated learning outcomes and is reaching students at key points in the curriculum.

The ability to schedule, record, and manage instruction information benefits both librarians and faculty. Faculty are able to request sessions more easily, for example, while librarians can distribute teaching among all instruction librarians. Annual reporting is supported by the ability to generate instruction statistics.

Gathering and analyzing assessment data can improve teaching and help librarians demonstrate how they contribute to student success. In terms of assessment management systems in particular, generating assessment data can enable librarians to tie their own instructional activities to other data such as student GPA or course grades. While keeping and reporting instruction statistics represents one key element in demonstrating the value of academic libraries to the educational mission of their parent institutions, using an assessment management system can help to show evidence of student learning in meeting information literacy and other learning outcomes.

Potential Hurdles

Low-tech approaches and more widely available options for instruction scheduling and management (e.g. Excel spreadsheets, Google Calendars) have the benefit of ease of use and low cost. However, these solutions may not be scalable as demands for instruction grow. Proprietary systems have a higher cost and may be prohibitively expensive for many institutions. Given the growing number of options,

selecting the right system will be determined by cost, ease of use and availability of technical support, and the level of detail required for instructional statistics reporting.

Systems for collecting and reporting instructional statistics do have limitations in terms of capturing all the types of instructional activity undertaken by librarians. While these systems are useful for reporting face-to-face instruction and reference transactions, online instructional activities can be difficult to report statistically due to a lack of best practices and a reliable reporting structure (Bottorff & Todd 2012).

Some institutions have created homegrown assessment management systems. This has the benefit of being tailored to the specific needs of the institution, but requires a significant investment of staff time and expertise to create and maintain the system. Because of costs and the need to tie library outcomes to other institutional outcomes, it would be more beneficial to libraries to be part of a larger institutional assessment management system, rather than to purchase or develop one of their own. However, this means that libraries may have to wait for institutional action, and may need to work with a system that is not ideal for their specific needs. In addition, while an assessment management system makes the recording and reporting of assessment information easier, librarians will still need to generate their own outcomes to input into the system, and will need to invest the time in assessing student work.

Conclusion

While the use of specific instruction and assessment management tools varies widely, instruction and assessment management is an issue librarians involved with instruction deal with frequently, if not daily. Based on responses from the members of ILI-L, most were reasonably satisfied with the tool or tools they were using, but respondents noted that they were eager to hear how other libraries were managing scheduling and assessment. This is an area of growing importance and one where change is expected well into the future as new tools are developed and as libraries fine-tune their data-gathering systems.

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