

Library Space Assessment: Focusing on Learning

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Introduction

The months, or even years, of the building renovation project are over, students have overrun the bright, redesigned library space, and the renovation is acclaimed by all a success. It is common to hear many librarians note that their building renovation project is a success, and the evidence for that is almost always the same: the building is full of students who seem pleased with the space and accoutrements; the renovated library has become a great space to study, to socialize, and to work collaboratively.¹ In this era of accountability, is the fact that the library is now full of students enough to justify the generally hefty resources invested in the library renovation? Even if there is no pressure from the university administration to justify the expense of the renovation, are there opportunities to use the renovation to demonstrate the value of the library to the university's teaching and learning program and to showcase how the library contributes to campus life?

While academic libraries support the research mission of the university as well as its teaching and learning mission, many library renovations today focus on providing new types of learning spaces for students, especially undergraduates. Most faculty, as a result of the move to digital content accessible on the desktop from offices, lab, or home, do not regularly come to the library facility, and many graduate students seek traditional, quiet spaces in the library for their work. Library renovations generally focus on providing new types of collaborative, technology-rich spaces for students, developing learning or information commons in prominent areas, and some add campus services to support student success, such as the writing center, into that space.

We often call these spaces “learning spaces,” but we do not have a good understanding of exactly whether and how renovated library spaces support broad institutional goals for student learning. Scott Bennett explored this issue in an article that attempts “to measure how campus spaces distinctively foster learning.”² His work draws on specific learning behaviors identified in the National Survey of Student Engagement (NSSE) treated later in this article. Bennett's work is an example of the type of deeper analysis of the assessment of renovated library spaces—along with the associated services, technologies, and content provided there—that is needed by the profession.

Thinking about Library Space Assessment

The “Library Space Assessment: Bringing the Focus to Teaching and Learning”³ workshop, held at the Library Assessment Conference in November 2012, was designed to help participants think more deeply about connecting completed space renovation assessment to student learning. Prior to attending the workshop, participants were asked to list some themes related to learning that were important issues in their institution. Some key topics identified included:

- Critical thinking
- Student success
- Undergraduate research
- Information literacy
- Writing and communication

Most academic librarians believe that their programs, facilities, and services support all of the above in some way, but demonstrating a direct connection between libraries and student success, for example, is not an easy proposition. Even more difficult would be demonstrating the value of the library **facility** to student success or any of the other topics listed above. While it may take a great deal of effort to frame questions and develop methodologies that address the role that renovated library facilities play in students' education, the results may assist the library in demonstrating to administrators and others the value of the library to the teaching and learning program of the university. Adding to the complexity, it is often the combination of the renovated space, along with the associated services and technologies that together create an environment that facilitates changes in learning.

In a study for the Association of College and Research Libraries, Megan Oakleaf looked at a wide range of ways in which libraries can provide value for the institutions they serve; her work addressed library spaces as one dimension that libraries can correlate with institutional data on learning.⁴ The exercise of planning out an assessment program in conjunction with the library facility design process may prompt librarians to think more deeply about what they hope to accomplish for student learning as a result of the renovation.

When embarking on an assessment program for a renovated library space, these considerations can be used to frame initial discussions:

- Developing an assessment plan as a component of the overall design process
- Keeping the assessment plan tied to broader institutional goals, particularly related to learning, rather than more narrowly on library concerns
- Considering the key issues and methodologies in assessment in higher education and how they relate to the project

Current Library Space Assessment Practices

Librarians have developed sophisticated methods for understanding how students study and how they spend their time doing academic work. Inspired by the work at University of Rochester, pioneered by Nancy Fried Foster and Susan Gibbons, many libraries are employing qualitative methods and ethnographic strategies (observation, use of diaries, studying photographs, etc.) as a means to understand users' needs and plan a renovation of library space.⁵ However, these assessment efforts most often focus on student behavior **prior** to the building project and generally do not examine whether the renovated space has, in fact, actually met student needs in a way that is better than the pre-renovation space.

At the heart of this needs-assessment research is a movement toward participatory design practices, whereby those stakeholders driving design decisions involve end users in the design process. The questions shaping such research focus on what users need in order to get work done and/or preferences for spaces, technologies, and collaboration. Although this kind of needs-assessment work is critical to creating library learning spaces that respond to user needs, demonstrating clearer links between student learning and a space after the renovation (i.e., post-occupancy) requires moving beyond preferences and figuring out, “Do they like it?” (i.e., user satisfaction). It means focusing on different research questions and making connections between departmental, college, and campus priorities for teaching and learning. National trends related to student learning assessment may also inform the assessment planning process.

Developing an Assessment Plan for a Library Renovation or Building Project

The role of assessment in the overall planning of a learning space is covered well in the Learning Space Toolkit.⁶ As the library begins to think about how to shape an assessment plan, a first consideration should be which partners to bring into the process. Identifying assessment experts within the institution and soliciting their advice and input can be especially useful. These professionals may also be able to link the library’s programs to ongoing assessments in other units of the university, such as the student success program, the undergraduate education office, the undergraduate research program, etc.

In developing a plan, there are many considerations a library may want to pursue, such as student study behavior in a needs-assessment phase, or user satisfaction and use of technologies in the post-occupancy phase. The information gathered from these efforts may be useful in shaping a facility that is popular with users. However, we suggest that libraries can do more to demonstrate what they contribute to the institution’s teaching and learning program through some of the outcomes of library renovations if they approach assessment with a broader mindset. Some guiding questions to consider early in the development of an assessment plan include:

- What elements of the renovation will support important learning goals for the institution?
- What curricular initiatives in departments or colleges would benefit from the availability of new facilities, technologies, and services in the library?
- What elements of the library renovation and newly configured services would support student success?
- How does the library encourage student engagement with learning?
- What audiences does the library want to reach with the outcomes of the assessment program?

Thinking through these questions will help sharpen the focus of the project and encourage the planning group to consider shaping new services and adding new technologies along with planning the renovated or new library space. Such questions also require thinking carefully about campus priorities as reflected in its strategic plan and connecting with campus stakeholders—deans, faculty, learning technologists,

students, and others—to get a deeper understanding of current needs and future potential for teaching and learning at the institution.

After the renovation, post-occupancy assessment can focus on questions such as:

- How does the facility (the combination of spaces, technologies, services, collections, and staff expertise) enable student learning?
- What is the impact of the library's facilities, technologies, and services that support specific academic programs? (For example, how did the library support the projects that students accomplished as the culmination of their undergraduate research program?)
- Do students believe they are able to accomplish a specific learning goal because of what the library provides? (For example, can students find resources, use equipment, and get support for complex multimedia projects better than they could prior to the existence of the facility?)
- For specific kinds of assignments, do faculty (or faculty and students) see improved quality due to the library's spaces and resources? (For example, are students better prepared to make oral presentations with supporting media when they have used the library's presentation practice spaces?)
- Is the availability of the library's spaces (and all they contain) helping to change how instructors teach and how students learn? (For example, does the existence of a SCALE-UP-style classroom—where students watch video lectures prior to class and engage in problem-based learning in the facility—improve information literacy skills?)

These are challenging questions that will require a range of quantitative and qualitative research strategies to develop an understanding of the library's impact. They move the library space assessment efforts beyond user satisfaction into making more explicit connections between the library learning spaces and student learning. As stated, partnerships with campus experts can be invaluable in shaping effective assessment projects and tying them to broader campus initiatives.

Aligning Assessment with National Trends and Campus Priorities

It is important for staff involved in library space assessment to be informed about both national trends related to assessment and how they impact their campus's priorities related to teaching and learning. Such awareness positions librarians to expand beyond library-centric thinking and consider the role of the library in student learning more broadly. It also allows us to be more proactive in designing assessment research questions and considering how assessment of the library space (and all it contains) can be merged into or respond to broader assessment efforts on campus.

An important driver in the increased attention to assessment of higher education teaching and learning is a call for accountability by state governments, governing boards, and the general public. As the costs of obtaining a post-secondary degree increase and a larger portion of the population pursues higher education, more individuals, governments, and other interested parties such as private funders, believe

they have a stake in the higher education system, and they want more transparency from universities and colleges. Two markers that are of particular concern to many citizens are persistence (continuing a program to completion and awarding of a degree) and time-to-degree (the number of years it takes students to complete a degree in a given institution). In order to get a better understanding of factors that interfere with persistence and that lengthen time-to-degree, many institutions are taking a data-driven approach to analyzing student performance.

Preparing for an accreditation review or an external review of a program or department may also be the impetus for increased attention to assessment on a campus. Campus administrators and those charged with managing such processes must decide what they want to measure, what methodologies they will employ, and how they anticipate using the results.

While there are many ways to approach teaching and learning assessment in higher education, three diverse themes have recently been in the news at the national level: learning analytics, faculty and student effort, and student engagement. Aligning library space assessment efforts with these highly publicized issues may be challenging, but connections are possible, and they may prompt closer attention to the library's overall service program.

Learning Analytics

Faculty make assumptions about student learning and continue to use traditional testing mechanisms to assess class performance. Many university faculty, whether by choice or necessity, focus more of their efforts on research than on teaching, and continue the practice of giving lectures and exams without careful analysis of where their students might encounter particular difficulties with the course content. Systems that employ learning analytics are receiving increasing attention as a means to understand what enables and what blocks student success in particular courses or curricula.⁷ Software, installed as part of a learning management system or an institutional learning environment, log their activities as they complete assignments, use facilities, or attend tutoring sessions. Detailed data are collected on individual students' performance in courses; these data can include performance on quizzes, completion of homework, accesses of materials on the learning management system, and data from other units such as a writing or tutoring center. Advisors or faculty receive reports on students' learning activities and may receive alerts that some students are struggling in the course. Faculty can also analyze aggregated data to better understand where improvements are needed in the learning materials for the course and are encouraged to make revisions for future semesters. Learning analytics may be particularly effective in improving student success in large-enrollment, required courses thereby facilitating persistence in the program and institution.

Potentially, library data can be a component of learning analytics as well. Data such as use of the facility's collection, its equipment, and/or its group study rooms can be captured and could possibly be fed into the analytics software at an institution or correlated with relevant institutional student data such as GPA, major, etc. Privacy issues will be of concern to librarians in this arena, but there are methods available for securing user privacy. If libraries wish to participate in such efforts, it may require partnership with key campus stakeholders such as registration and records, institutional data, and faculty or staff with

expertise in data analysis outside the library. The University of Minnesota, Twin Cities, Libraries have published the results of two studies that examined the relationship between library use and student success and retention, employing the use of library data and additional data from the university's Institutional Research unit. While their work did not directly address the questions of contributions of library renovations to student success, their methodologies serve as an excellent model for future studies.⁸

Faculty and Student Effort

Researchers, state legislators, and the general public are examining the amount of effort (usually represented as time spent) faculty and students expend in teaching and learning. *Academically Adrift*,⁹ which appeared in late 2010, provided data that demonstrated how little students were actually learning in their four-year undergraduate education (based on results from the Collegiate Learning Assessment, or CLA). The report also included data that divulged how little time students were spending studying outside of class. It is important to note, however, that the National Survey of Student Engagement (NSSE; see below), which also measures student effort, yielded higher numbers of student study hours than the *Academically Adrift* study.¹⁰ Many students spend at least part of their time studying in the library, but these studies did not collect data on student location. Faculty effort expended in teaching has also been scrutinized, particularly by legislators, who may not clearly understand (or support) the fact that many faculty in research institutions have reduced teaching loads so that they may devote more time to their (funded) research. Since virtually all libraries report increased use after a renovation, it is interesting to consider whether these spaces promote more learning time for students outside of class. If a sample of students were studied before and after the renovation, it would be beneficial to many institutions to understand whether there is a measurable impact on the amount of time spent on academic work.

Student Engagement

The National Survey of Student Engagement (NSSE) is an instrument that uses broad topic areas to benchmark the degree to which students are engaged in learning: academic challenge, learning with peers, experiences with faculty, and campus environment.¹¹ The survey, revised for administration in 2013, continues to seek to identify educational practices that lead to student learning success in high performing institutions.¹² Clearly, many of the elements of student engagement have strong connections to the library; for example, NSSE questions address the types of assignments student complete, student experience evaluating information resources, and participation in a culminating senior experience (thesis, etc.). The NSSE has been called into question as a predictor of academic success,¹³ but the survey was not intended to function in that capacity. Its purpose is to measure practices associated with teaching and learning in high performing institutions. It is currently in use in over 600 institutions. Many libraries work with NSSE coordinators in their institutions and some add questions addressing library services to the administration of the survey on their campus. There is also an information literacy module for NSSE in development.¹⁴ The NSSE could help libraries study what impact the renovated space and new technologies and services had, for example, on involvement in undergraduate capstone projects or an undergraduate research program.

When constructing an assessment plan for a renovated or new library facility, the developers should

investigate what key national issues are of primary importance in their institution and should discuss whether it is possible to address those concerns through a particular approach to assessment. The University of Tennessee, Knoxville, Libraries are taking this approach in their work as part of the ARL LibValue project, and part of their effort focuses on the role of their Commons in student learning.¹⁵ Partnering with campus units who may be involved in overall assessment work for teaching and learning may help libraries identify those key campus concerns and yield opportunities to share in the development of assessment instruments.

Conclusion

As libraries continue to focus resources on the design and operation of new learning spaces, the need for assessment data drawing lines between student learning and library facilities is gaining importance. A library assessment plan for a new learning space should be holistic, with user-needs assessment undertaken at the outset and post-occupancy research that moves beyond user satisfaction to examine more closely the impact on learning and teaching. It is not easy to make these connections between student learning and library spaces, but it is critical that we explore research questions that examine intersections. Unfortunately, there is a paucity of published and shared research in this area. It is important to explore these connections, however, as they can promote the value of the library to the teaching and learning program of the institution and, collectively, throughout higher education. Such research efforts would help libraries better understand and articulate the “learning” in our “learning spaces.” More published and shared examples would benefit libraries as a whole.

Additionally, aligning space assessment with national and campus trends related to assessment—such as learning analytics, student effort, and student engagement—would increase awareness of the impact of library spaces. Although libraries are making forays into these assessment areas, more space-focused examples are needed for a deeper understanding of the inherent value of library learning spaces.

Resources for Learning-focused Assessment in Higher Education

National Institute for Learning Outcomes Assessment (NILOA)

<http://www.learningoutcomeassessment.org/>

This resource was developed to “discover and disseminate ways that academic programs and institutions can productively use assessment data internally to inform and strengthen undergraduate education, and externally to communicate with policy makers, families, and other stakeholders.” Stan Ikenberry and George Kuh, two eminent higher education scholars, are co-principal investigators for this program.

Association of American Colleges and Universities (AAC&U), "Assessment"

<http://www.aacu.org/resources/assessment/>

A higher education association that is particularly focused on teaching and learning, the assessment resources included on AAC&U's site link to both their own projects such as VALUE: Valid Assessment of Learning in Undergraduate Education and many other institutional and national assessment materials.

EDUCAUSE, "Learning Analytics"

<http://www.educause.edu/library/learning-analytics>

This website aggregates EDUCAUSE articles, conference sessions, and briefings on learning analytics; EDUCAUSE has made this topic a major focus of their activities in recent years.

Learning Spaces Collaboratory

<http://www.pkallsc.org/>

Materials on this website include background papers and conference presentations related to all aspects of spaces created for learning in higher education institutions. Resources from this site can be especially helpful in assisting institutions in developing particular learning goals related to their physical spaces.

Association of College & Research Libraries (ACRL), "Assessment in Action: Academic Libraries and Student Success"

<http://www.ala.org/acrl/AiA>

Through this program, libraries are designing and implementing assessment projects focused on student success. Some projects will focus on tying physical spaces to student learning.

Endnotes

- 1 This article focuses on library space renovations since they are much more common than entirely new library buildings, but the same concepts apply to both new and renovated spaces. Some renovated spaces also include additions.
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- 3 Joan K. Lippincott and Kim Duckett, "Library Space Assessment: Bringing the Focus to Teaching and Learning" (workshop presented at Library Assessment Conference, Charlottesville, Virginia, Nov. 1, 2012), http://libraryassessment.org/archive/2012_workshops.shtml#2.
- 4 Megan Oakleaf, *The Value of Academic Libraries: A Comprehensive Research Review and Report* (Chicago: Association of College and Research Libraries, 2010), http://www.ala.org/acrl/sites/ala.org/acrl/files/content/issues/value/val_report.pdf.

- 5 Nancy Fried Foster and Susan Gibbons, eds., *Studying Students: The Undergraduate Research Project at the University of Rochester* (Chicago: Association of College and Research Libraries, 2007).
- 6 “Needs Assessment,” in Learning Space Toolkit: A Resource for Planning and Sustaining Technology-Rich Informal Learning Spaces, <http://learningspacetoolkit.org/needs-assessment/>.
- 7 Malcolm Brown, “Learning Analytics: Moving from Concept to Practice,” EDUCAUSE Learning Initiative (ELI) Brief, July 2012, <http://net.educause.edu/ir/library/pdf/ELIB1203.pdf>.
- 8 Shane Nackerud, Jan Fransen, Kate Peterson, and Kristen Mastel, “Analyzing Demographics: Assessing Library Use across the Institution,” *portal: Libraries and the Academy* 13, no. 2 (April 2013): 131–145; and Krista M. Soria, Jan Fransen, and Shane Nackerud, “Library Use and Undergraduate Student Outcomes: New Evidence for Students’ Retention and Academic Success,” *portal* 13, no. 2 (April 2013): 147–164.
- 9 Richard Arum and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses* (Chicago: University of Chicago Press, 2010).
- 10 NSSE: National Survey of Student Engagement, “About NSSE,” 2013, <http://nsse.iub.edu/html/about.cfm>.
- 11 NSSE: National Survey of Student Engagement, “Introducing an Updated NSSE,” May 2013, [http://nsse.iub.edu/Institutional_Report/Introducing NSSE 2013 One Sheet.pdf](http://nsse.iub.edu/Institutional_Report/Introducing_NSSE_2013_One_Sheet.pdf).
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- 13 Allie Grasgreen, “Major Engagement,” *Inside Higher Education*, November 17, 2011, <http://www.insidehighered.com/news/2011/11/17/nsse-2011-measures-student-engagement-major>.
- 14 Terri Fishel, “Information Literacy Assessment and the National Survey of Student Engagement (NSSE),” *ACRL Value of Academic Libraries* blog, August 14, 2012, <http://www.acrl.ala.org/value/?p=412>. See also: Kevin Fosnacht and Carrie Donovan, “Information Engagement: Preliminary Results From the NSSE Information Literacy Module” (poster presented at ACRL Conference, Indianapolis, Indiana, April 10–13, 2013), [http://cpr.iub.edu/uploads/Information Engagement - ACRL 2013.pdf](http://cpr.iub.edu/uploads/Information_Engagement_-_ACRL_2013.pdf).
- 15 Regina Mays, Teresa B. Walker, and Rachel Fleming-May, “Aligning Assessment Efforts with Institutional Priorities: A Case Study from the University of Tennessee” (presented at the Fourth International Conference on Qualitative and Quantitative Methods in Libraries, Limerick, Ireland, May 22–25, 2012), http://libvalue.cci.utk.edu/sites/default/files/qqml-UT-2012_0.pdf.

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