



METRICS

• Building Measurements: Assessing Success of the Library's Changing Physical Space

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Between 2003 through 2009, there were 99 new academic library buildings completed in the United States and Puerto Rico. Approximately 9,403,000 square feet of new space was built at a cost of approximately 2.5 billion dollars.¹ While 99 new library buildings represents a 33% decline in new academic library construction when compared to the previous seven year period, 1996–2002,² it does not include smaller additions (less than the square footage of the original structure), and other projects such as the recently completed, three year, \$109 million renovation of Ohio State University's Thompson Library. The decline in new construction activity is likely a result of several factors, including but not limited to the ongoing economic challenges facing higher education, which have also "accelerated the permanent closure of smaller, specialized branch libraries."³ Library consolidations have become increasingly common and are sometimes included in new library building projects such as consolidation of several science libraries in the new, Gehry-designed Lewis Library at Princeton University. Whatever the reasons for the decline in new building activity, as one who studies library buildings, I am optimistic about the future of the academic library space. Library buildings completed in recent years are markedly different spaces than in decades past. They are larger and often architecturally significant. They are designed for collaboration, learning, and community, and likewise provide space for a myriad of purposes ranging from art galleries to state-of-the-art classrooms. While this is an exciting era for library planning and design, the nature of the transformation of the academic library building presents new challenges for assessing the success of the library through measuring its use.

For decades, the primary driver in designing new academic library buildings was physical collections. Scott Bennett's research on new and remodeled US academic library buildings that were completed mainly in the 1990s showed that growth of physical collections was a primary factor in planning these new spaces.⁴ More recent research of library buildings that have been completed during much of the first decade of this century, however, shows that the changing needs of students and rapidly evolving information technologies have supplanted growth of physical collections as leading planning considerations for new library space.⁵ New academic library buildings are frequently described as bustling centers of campus life. As we plan for new buildings or, more

likely, to reconfigure and/or expand existing library space, a primary factor that has guided library design for centuries—the physical book—is now but one element on a shared palette of priorities in planning new library space. While planning factors have changed, however, usage measurements for these buildings have remained largely the same. Traditional metrics, primarily gate counts, have been used since the first turnstiles (now largely replaced by infrared beams and other traffic counter technologies) were installed at academic library entrances decades ago, and remain one of the most widely accepted methods for measuring facility use today. As the library's physical space evolves, two leading characteristics of new academic library buildings illustrate the challenges we face in effectively measuring how transformed library space is used. These characteristics include the proliferation of new kinds of learning space and increased emphasis on multiuse.

One of the most prevalent expressions in new academic library building design is learning space. While the idea that the library space should be an extension of the classroom is not new, the evolution of learning space beyond what could be considered conventional study space (e.g., reading rooms, tables, and carrels) has accelerated rather rapidly, especially in the past decade. The case for including new kinds of learning space in the academic library has been made in a range of articles, reviews, and reports in recent years. In general terms, learning space can be categorized as individual, quiet study (often what we would consider "traditional" library space such as reading rooms, tables, and study carrels); instructional space such as classrooms and labs; and, finally, group and collaborative space. Unlike typical group study rooms of the past, collaborative learning space in new libraries can be highly flexible, adaptive, and extensible. In general, new academic library buildings that replace existing facilities offer significantly more learning space—especially classrooms and collaborative space—than the buildings they replace. For academic library buildings completed in recent years, there is generally more classroom and group study space built into new library facilities at institutions with higher undergraduate enrollment, as there is proportionally more new library construction at institutions with higher undergraduate enrollments. The emphasis on classroom space in new libraries at undergraduate institutions may well be a reflection of general institutional demand for these types of spaces as well as (hopefully) the expanding role of the library in undergraduate learning. Previous research has suggested a correlation between the quality of new learning space (namely, instruction labs) and increased building usage.⁶

If new library space is being planned and designed for learning, how then, beyond general observation and broad metrics such as gate counts, do we assess the effectiveness of these new spaces beyond the fact that people are in the space? One of the prevailing assumptions in

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academic libraries is that learning space offers advantages over other types of space on campus where students meet to collaborate and study. These assumptions are reinforced by observational data from librarians in new library buildings that show that the busiest areas of these buildings are group study suites and classrooms. However, when measured against library resources and services as a whole, it is important to provide linkages between use of learning space such as group study suites, general use classrooms, and information commons, and unique resources and services offered specifically by the library. A generation ago, one could make general assumptions about the link between a user entering the library space and the likelihood of the user using a library service such as reference or a physical item from the collection. While users did come to the library to exclusively study in areas such as reading rooms and individual carrels, they were, in a print-based world more likely to use a library resource in the library space.

Another significant trend in the evolution of academic library space is multiuse. The library building is evolving into a center for a range of campus social, educational, and cultural activities. Table 1⁷ lists the types of non-library facilities in new library buildings when compared with buildings that were replaced (respondents were participants in a study of new library buildings completed between 2002 and 2009). Many of these spaces, such as general use classrooms, general use computer labs, and meeting rooms may be as much expressions of campus need for these kinds of resources as they are core requirements for library design. New library buildings offer good opportunities for institutions to increase inventories of needed classrooms and meeting rooms. These types of facilities, while not directly linked to the library mission, most certainly contribute to increased use of the library as measured in gate counts. Moreover, spaces such as art galleries and meeting rooms enhance the library's role in various aspects of campus life, which in itself has potential political benefits for the library. However, with the expansion of new territory into the library's physical space, gate counts are a relatively imprecise tool for assessing the impact of new, multiuse library buildings on library related services. Few would

argue that having these types of spaces in new library buildings does not benefit the library in some way. In an era in which library staffing levels, collections, and services are increasingly threatened by institutional budget cutbacks, however, it is important to be able to identify, link, and leverage the specific way(s) in which use of the new facility strengthens the case for support for library related functions and services.

If expansion of learning space and the proliferation of multiuse in new academic library buildings leads to questions about the connections, if any, between use of these new spaces and the work of the library, more integrated measurements are necessary for interpreting facility use. Traditional usage measures fail to address the full range of how library physical space is changing as well as the consequences of these changes. While some metrics, namely gate counts, are widely used and generally accepted methods for assessing use of the library building, they do not—with exceptions—help us to understand how the aspects of the building, especially library specific aspects—are being used. New strategies are necessary. For example, coupling strategic goals to use of physical space is one way to target specific areas of the building to determine the library's impact on use of that space. Linking specific aspects of the library's service and outreach goals to the way learning space is used may be useful in assessing library learning and programming goals to the way in which these new spaces are used.

What may these more refined, more targeted, contextualized metrics look like? Suggestions from library leaders vary, but include layering usage data for targeted library services with data such as gate counts, computer logins, and other tallies. Assessment goals for new library space, particularly learning space, may start with building use, but may also include tandem, possibly correlative metrics such as use of library digital resources, guides, and other online material from within the building. Elements of these data are already collected by academic libraries and are included in major surveys such as ACRL's Academic Library Trends and Statistics Survey and the National Center for Educational Statistics Library Statistics Program. For the University of Georgia's Student Learning Center, University Librarian William Potter has suggested the development of an academic library research agenda that will allow for "adjustments between assumptions and actual use" of the facility. Such an agenda would include library usage assessment tools for scope and volume of use of new facilities for instructional support, and surveys to measure increased faculty and student interaction.⁸ As the library as learning space movement continues, we will need to know much more about the kind of learning that is occurring in the new library space and, most importantly, what role librarians and librarianship play in the process.

Whatever the method, it is becoming increasingly important for the library to generate data about use of the library and various library resources in the physical space that go beyond gate counts and other basic tallying tools currently in use. Data libraries already collect about use of selected physical resources in the library space provide a good starting point for a comprehensive approach to library usage patterns in new, planned, or existing learning-centered, multiuse library buildings. Narrative, qualitative data such as user feedback and testimonies can support quantitative data such as volume of library services provided in the library facility. Use of collections and library services, whether provided directly or linked with other academic services to building use, are important elements in the library narrative, especially in newer, heavily used buildings. New approaches to measuring use of the evolving library space will enable us to determine what connects successful library buildings with successful libraries.

NOTES AND REFERENCES

1. Stewart, Christopher. 2010. *The Academic Library Building in the Digital Age: A Study of Construction, Planning, and Design of New Library Space*. Chicago, IL: Association of College & Research Libraries, p. 27.

Table 1

Non-library facilities included in old and new libraries

Non-library facility	Old facility	New facility	Response count
General computer lab(s)	57.7% (26)	95.5% (43)	45
Snack bar or cafe	15.2% (7)	97.8% (45)	46
General use classrooms	37.8% (14)	97.2% (36)	37
Conference/meeting rooms	44.0% (22)	100.0% (50)	50
Auditorium	23.0% (3)	100.0% (13)	13
Tutoring center	21.0% (4)	89.4% (17)	19
Writing center	18.1% (4)	95.4% (21)	22
Archives	68.1% (30)	88.6% (39)	44
Bookstore	40.0% (2)	100.0% (5)	5
Copy center	73.7% (14)	94.7% (18)	19
Academic department(s)	90.0% (9)	60.0% (6)	10
Art gallery or museum space	27.6% (8)	89.7% (26)	29
Other (please describe)			22
Answered question			56
Skipped question			2

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8. Potter, William. "The Library as Place: The Student Learning Center at the University of Georgia", n.d. http://old.cni.org/tfms/2004a.spring/handouts/Spring2004handouts/cni_brief_on_slc.doc