
Assessing to Transform an Aging Learning Commons: Leveraging Multiple Methods to Create a Holistic Picture of Student Needs

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Abstract

The transformation of academic library spaces is necessary to keep up with a constantly changing intellectual landscape. Over 10 years old, the UMass Amherst Learning Commons has experienced growth and minor reconfigurations over time, but dramatic transformation is needed to meet the needs of future students. This paper describes an approach to assessing a learning space for the purpose of transforming it, a two-year process undertaken by a multi-department team. The team employed quantitative and qualitative methods to investigate student work patterns and preferences and the library spaces and organizational structures that support them.

Introduction

Over the past 15 years, academic libraries have been constructing new or renovating old spaces into a commons—an “information commons” or “learning commons” model. These spaces, converging access to library collections, student support services, and technology, are constructed with the intent to transform the traditional library setting into thriving learning communities. The learning commons as a place has evolved from a combined library and computer lab area into a full-service learning, support, research, and project space for the undergraduate student population.

The EDUCAUSE report *Learning Commons to Learning Outcomes* outlined a boom in the learning commons model, with over 150 instances in 2010 cropping up in academic libraries worldwide.¹ The increasing instances of this model speak clearly to its popularity; however, the question remains: is the learning commons successfully supporting undergraduate student learning? While Lippincott states that these “renovated facilities have become enormously successful, if gate count statistics are used as a measure,” there remains her following concern of “how do we engage [the students]?” and the rationale that when “properly designed,

implemented, and operated, [the learning commons] will enhance student learning and scholarship.”²

Over 10 years old, the University of Massachusetts Amherst Libraries’ Learning Commons (LC) is in need of a major update, as it was developed to meet the needs of students over a decade ago. While still very popular today, many of the technologies and services of the LC praised as innovative at the time of implementation have been surpassed by new developments in academic technology and library service models. As has always been the case, the library needs to provide the appropriate environment for students to complete their academic work, and the nature of that work is constantly changing. For example, with the increasing number of team-based learning classrooms at UMass Amherst in recent years, the LC needed to be developed to reflect these burgeoning pedagogical offerings on our campus; team-based tables and seating configurations have been installed to allow for teams to complete project work outside of the classroom, and many of the group spaces we have had for open use are now bookable for reservation, due to the high demand for project working areas. Additionally, because academic library collections are now nearly completely digital, we have been consistently adding new technologies to facilitate access to these collections. Our services need to reflect these changes as well; a staff well versed in print collections and more traditional lecture-based education has needed to constantly shift, grow, and change to meet the demands of our student population. We have gotten to a point where the reactive changes we have made over time to maintain an adaptive space are not enough—the cracks are starting to show. More proactive drastic change needs to occur in order to meet the needs of our future students.

To make a recommendation on the transformation of the LC, the libraries formed a multi-department task force to research student use of the library and

learning needs, and develop a proposal for the future LC based on that research. This paper describes the numerous methods used to assess the LC in order to develop recommendations for adapting an existing learning space. The team employed quantitative and qualitative methods to investigate student work patterns and preferences and the library spaces and organizational structures that support them.

Methods

New assessment methods were developed specifically for this project, but we also leveraged the results of ongoing assessment methods. Selected LC transformation-specific methods include microclimates and focus groups, and ongoing assessment methods include ethnographic research, headcount collection, service point data collection, Association of Research Libraries (ARL) LibQUAL surveys, and evaluative reports.

Microclimates

The most significant new assessment method was the creation of a testbed space of various microclimates, which was used to evaluate the most successful types of spaces and combinations of furniture and technology. Three distinct microclimates were formed: collaborative working groups, team-based learning style group work, and alternative comfortable seating options. The creation of a small-scale experimental space allowed us to take risks within a smaller budget, and without impacting the rest of the LC. Assessment of these pilot spaces would inform the committee as to ideas for a future learning commons. The microclimate concept arose out of visits to the Taylor Family Digital Library at the University of Calgary as well as to the Hunt Library at North Carolina State University.

Focus groups

Ten focus groups were facilitated by the UMass Amherst Mark H. McCormack Center for Sport Research and Education in 2014. Groups were comprised of faculty, graduate students, and undergraduates. Participants were recruited using a variety of methods: a questionnaire at a support desk, an e-mail from the director of libraries to faculty and graduate students, and random intercepts/approaching students visiting the library the day of the focus groups.

Ethnographic research

From fall 2012 to the present, both undergraduate and graduate level anthropology courses have used the libraries as a client, where students perform ethnographic research in the library guided by themes such as identity, navigation, organizational change, and racial inclusiveness.

Headcount data collection

The libraries have collected headcount data, or data about the use of our spaces, since fall 2012. Headcount data are collected each hour for a week, for six weeks each year.

Service point data collection

The libraries have collected service point transaction data since 2009. Every transaction is recorded in LibAnalytics; time, date, service point, and staff member information is automatically recorded, and the staff member ranks the transaction on a scale of one to three according to effort, time, and knowledge or skill required.

ARL LibQUAL surveys

Responses from LibQUAL results from 2015 were analyzed for information related to the LC. More information about LibQUAL, including details about methodology, can be viewed in the University of Massachusetts Amherst's results notebook.³

Evaluative reports Over the past several years, the libraries formed task forces that have reviewed and made recommendations about the future direction of our departments. A Research and Liaison Services Task Force, Access Services Workflow Review Task Force, Digital Strategies Group Strategic Plan Implementation Task Force, and Marketing Work Group worked on environmental scans, literature reviews, and workflow reviews.

Findings

By combining ongoing methods with new methods for the purpose of the LC transformation, we were able to create a robust picture of student behavior and needs in an academic library. Selected major findings are presented below.

Microclimates

In general, the microclimates produced an extremely positive response from students, and students wanted more like spaces throughout the library. Furniture that supports the ability of students to work together, yet be somewhat sequestered, is extremely popular, validating the concept of "alone

together.” Furniture is constantly rearranged by students and so should be movable, but there should also be some permanently installed furniture to anchor each space. Furniture should be stain resistant, sturdy, and cleanable. Ongoing technical support is needed to help utilize the provided technology; this comes not only in the form of staff support, but instructions and signage to encourage self-starters.

Focus groups

Findings from undergraduate focus groups reveal that first years and sophomores constitute the heaviest users of the LC, who use it mostly for group work. Juniors and seniors also use the library for group work, but have less patience for noise in the LC. Undergraduates prefer Mac computers and use the libraries’ printers frequently. Undergraduates also had varying levels of awareness of services in the LC, and expressed discomfort at asking for help and a preference for figuring out things on their own.

Ethnographic research

There were four major themes shared between both undergraduate and graduate student research. First, as we had gathered from analyzing data

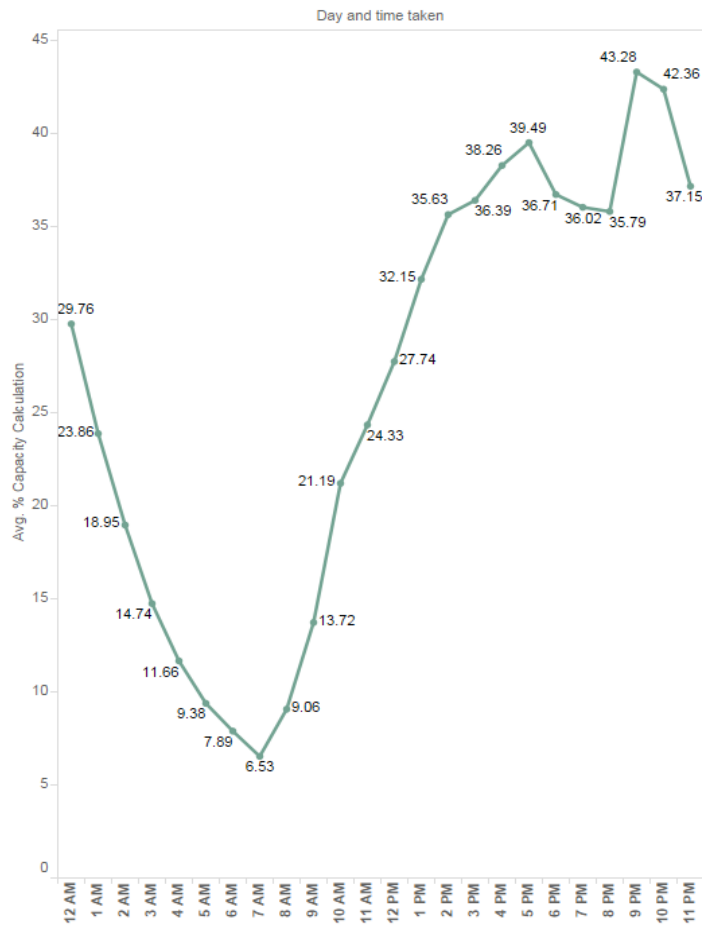
from previous surveys, students were confused by what services are offered in the LC. Either signage lacked clarity, or students otherwise had difficulty navigating the large space and number of resources offered. Second, students reported that while they wanted to be in the middle of a busy and socially charged area of the library, they still craved privacy and their own personal space—if there was a way to be “alone together.” Third, the group study rooms in the LC were available on a “first come, first served” basis, where students were able to self-govern usage by having groups displace single and two-person usage as needed. However, students reported discomfort at approaching and displacing other students. Lastly, in recent semesters, an emergent theme of inclusiveness and safety has emerged; there are some areas in the library that are viewed as “white spaces” by students, and other spaces that are much more comfortable for students of color, offering opportunity for self-expression without fear.

Headcount data collection

Headcount data reveals trends about use of spaces, technology, and furniture. For example, on average, group study rooms are not used at capacity, and instead they are used at half capacity or less (Figure 1).

Figure 1: Study Room Capacity

Study Room Capacity



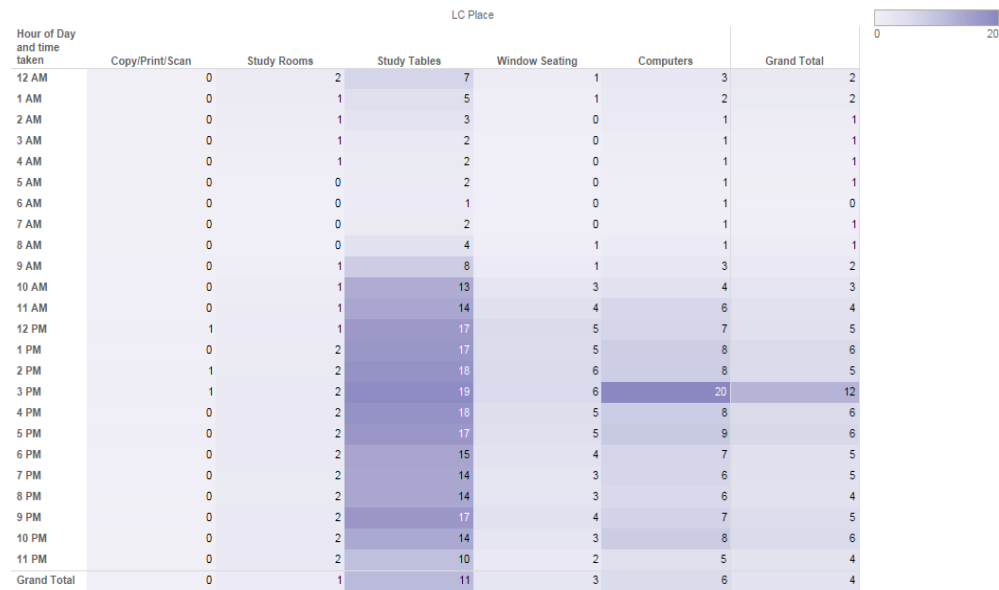
The trend of average of % Capacity Calculation for Day and time taken Hour. The data is filtered on Place (group), which keeps 25 of 187 members.

By grouping areas of the LC together by type (copy/print/scan, study rooms, study tables, window seating, computers), we can see that the most heavily

used type of space in the LC is revealed to be, on average, study tables (Figure 2).

Figure 2: Average Use of LC Places by Hour

Average Use of LC Places by Hour



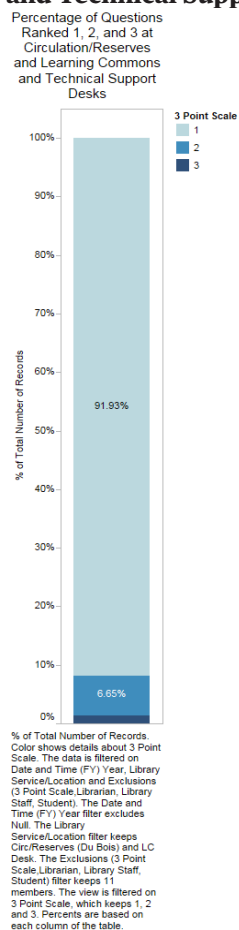
Average of People Count broken down by LC Place vs. Day and time taken Hour. Color shows average of People Count. The marks are labeled by average of People Count. The view is filtered on LC Place, which keeps Copy/Print/Scan, Study Rooms, Study Tables, Window Seating and Computers.

Service desk data collection

Because the three service points in the LC have been collecting data for several years, these data can be reviewed to inform staffing questions such as type of staff and staffing levels according to time of day or week. After combining data from the circulation/

reserves desk and the learning commons and technical support desk, it is known that nearly 92% of questions asked were ranked as one, or quick and easy questions that can be handled with introductory training (Figure 3).

Figure 3: Percentage of Questions Ranked 1, 2, and 3 at Circulation/Reserves and Learning Commons and Technical Support Desks



ARL LibQUAL surveys

Undergraduates prioritized the environment and feeling of the library as a comfortable, quiet getaway space that would allow them to do work as individuals (group work space was also desired, but ranked lower). Students were satisfied with levels of service in the following categories: willingness to help others, giving users individual attention, readiness to respond to users’ questions, employees who instill confidence in users, and employees who deal with users in a caring fashion. Areas to address in the LC transformation include a quiet space for individual activities, addressing dependability issues in handling users’ service problems, building a comfortable and inviting space, and providing modern equipment that lets users easily access needed information.

Evaluative reports

Research and Liaison Services Task Force
 The RLSTF recommends exploring a closer connection to the Writing Center (located in the LC), and echoing their model for consultative services by appointment. A co-location of service points is also recommended to free up space, reduce user confusion, and encourage closer work between service point staff.

Access Services Workflow Review Task Force
 Many ASWRTF recommendations center on creating a co-located or single service point in the LC, as well as necessary supports for this change, such as standards for a common knowledge set for all service desk staff, software to support the service point’s communication and functionality, and library-wide customer service training.

*Digital Strategies Group Strategic Plan
Implementation Task Force*

Related to the LC, the DSGSPITF recommends the development of a formal marketing plan that promotes library services, acknowledging that, for many services, we use a “service desk model” where we wait for users to approach us instead of pushing out information about the library.

Marketing Work Group

The MWG recommends the adoption of a coordinated marketing orientation across the libraries, which involves focusing on our user needs instead of products. They also recommend the development of personas (fictitious characters that represent different user groups) to better understand user needs and to tailor services and messages to these groups.

Discussion

While this was a large and time consuming project, we were able to leverage past and ongoing assessment work, demonstrating the value and sustainability of a strong assessment program. We used practical, scalable, and easily duplicable methods to research the use of our current LC and emerging student needs. Based on the review of findings, recommendations include a phased plan to transform our LC over two years.

Recommendations include combining multiple service points into a co-located service area to address issues identified around confusion and difficulty finding help and general awareness of services. We also propose expanding and consolidating our Digital Media Lab and MakerBot Innovation Center, based on similar feedback about lack of awareness of services. The creation of a Writing and Research Center is recommended to further consolidate service points in the LC, leverage institutional affinities, and to respond to changing research consultation models. Updated group work areas are recommended to address changing technology needs and student trepidation about navigating group workspaces. Finally, the implementation of explicit “alone together” work areas are recommended in response to the consistent feedback that students wish to work together, yet be somewhat sequestered.

All of these changes have implications for major organizational and staffing changes. As we had

suspected, the assessment of a multi-faceted, rich learning environment requires multiple methods to help create a full picture for indicating efficacy. While the working plan of the assessment team tasked to review the LC was complex, it was necessary, and, while answering many of our questions, has led us to ask many more. The formation of a Co-Located Service Desk Task Force (CSDTF) and subsequent working groups was only the first of many steps we will be taking toward realizing the transformation of this space. This group has started working on identifying how to consolidate most of the services in the LC into one area, beginning with identifying shared support goals between areas and tiered levels of support and referral.

Next steps will be identifying a staffing structure for this shared service area; it will be a blend of student and full-time staff, with predominantly student peer support available. The CSDTF is conducting their work in collaboration with several other groups in the library responsible for service quality and knowledge, such as Customer Service and Common Knowledge Task Forces. These groups focus on customer service levels and support staff knowledge, as well as training across the libraries.

With the next phase of our work—investigating the drastic change of service provision and major organizational change—we are looking to create narratives from our library staff and perceptions of this change. We are hoping to run a series of in-depth interviews to help us paint a picture of the perception of organizational change, and how best to move forward with cultural shifts in our libraries. This type of assessment takes time, commitment, and consistency—and we are prepared to continue on this path.

Conclusion

Transforming an existing LC is a large undertaking, but leveraging some ongoing assessment projects and their findings while creating a few project-specific methods proved to be an effective strategy for creating a robust picture of student needs. Both qualitative and quantitative methods were used by a Learning Commons Assessment Task Force to develop recommendations on the LC transformation. Because the co-located service area recommendation will create organizational change and have a direct impact on staff, an additional group was formed to focus on implementation, and additional

work is being done to address the associated organizational change.

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References

1. D. Beagle, “From Learning Commons to Learning Outcomes,” *EDUCAUSE Center for Applied Research Bulletin* (Fall 2011): 1.
2. Joan Lippincott, “Linking the Information Commons to Learning,” in *Learning Spaces*, edited by Diana Oblinger (Boulder, CO: EDUCAUSE, 2006), 89.
3. University of Massachusetts Amherst LibQUAL Results Notebook, <http://www.library.umass.edu/assets/Assessment/2015-LibQual-Report.pdf>.