Using Evidence for Library Space Planning

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Abstract

Faced with expanding collections and a rise in student population, Jackson Library, the main library of the University Libraries at The University of North Carolina at Greensboro, made the decision to hire a space consultant in order to repurpose existing library space in front of an addition still 7-10 years away. In order to provide information useful to this project for both the consultant hired and decision- making administrators, the library developed a program and conducted an assessment of space usage.

The three-part assessment program included surveys, observation studies and focus group discussions that generated evidence and data useful to influence the work of the space consultant. In addition, the assessment information gathered provided library administration with a list of service enhancements that could be implemented immediately without a large capital outlay.

The final recommendations that came from the space consultant's work is supported by evidence gained from the library's assessment activities as well as feedback and suggestions from library faculty and staff. This process also became a first step in the development of an ongoing culture of assessment activities to improve library services and promote the learning value of the libraries as a place.

Introduction

The Walter Clinton Jackson Library is the main library of the University Libraries at the University of North Carolina at Greensboro (UNCG). Jackson Library includes the 3-story Main Building, constructed in 1951, and the adjoining 10-story Tower, completed in 1973. Library space in the two buildings is approximately 220,550 square feet of total space with 14,648 square feet of common user space and seating for approximately 849 users. The building is aging and we have no promise of an addition for 7-10 years. Our Special Collections are at capacity which makes it difficult to expand our unique holdings— an area academic libraries are increasingly emphasizing. In 2006, UNCG received a new Carnegie classification of "high research." As a result, faculty are expected to produce more research which the Libraries want to support actively. In order to provide our users with the spaces, services, and resources needed for a 21st century university, we are challenged to use our existing space to its best advantage. To assist us with future renovations, we engaged in more formal space assessment and hired a space consultant to advise us on space planning.

Background

Over the past decade, we have made numerous renovations and changes to accommodate collections and student body growth. In 1995, when the book Tower reached its original capacity for materials, 12,000 linear feet of shelving was added which reduced seating capacity by 50%. Also in 1995, a remote storage facility was obtained which is also now at capacity with 90,000 volumes. Another change in the mid-1990s was the installation of the Superlab in the Library space formerly occupied by Technical Services. This lab is administered by UNCG IT (not the Libraries) and was in response to the need at that time for a large number of open computers for use by students. Since 2000, our enrollment has grown from 13,343 to 17,257 and is projected to be 24,000 by 2020. As a result, our gate counts have increased 42% since 1995.

In 2005 and 2006, the Associate Dean for Public Services visited several student organization meetings. The consistent messages emphasized a request for 24-hour space, the ability have food and drink in the Library, the need for group study and concern over the building's "gloominess." Additional suggestions included adding more comfortable furniture and displaying art work. In response, numerous cosmetic changes were made between 2005 and 2006 including carpeting major public areas, updating the blonde 1950s paneling and purchasing new furniture including more comfortable chairs and couches. A large open area on the first floor was renovated and refurnished to create a pleasant study space and is also used for

rotating art shows. The food policy was changed to allow food and covered drinks. Group and quiet floors were established in the Library Tower. Wireless capability was added throughout most of the building as well. Also in 2005, a connector between Jackson Library and the adjacent Elliott University Center (EUC) was completed which provided improved handicapped access and a physical link between two major areas of student activity. The Library/EUC connector also provided a second entrance to the Library.

In 2007-2008, we addressed the need for electronically- enhanced study as well as 24-hour space. The information commons theme was established in both Jackson and the Music Library by adding additional software to many of the public computers (previously all public computers only accessed the Internet). These computers are now restricted to UNCG users but we have retained several workstations for the general public that are limited to Internet only. Training was provided so that staff could help students with basic technology questions. A small learning commons area was created on the first floor with plasma screens, white boards, and connectivity for laptops as first-come, first-served group space. Also, additional electrical outlets were added throughout the first floor so that students could plug in their laptops. With support from the University Teaching and Learning Center, collaboratories that may be reserved were created on the Tower floors in existing group spaces. These rooms also provide plasma screens, outlets for laptops and white boards, and two rooms have podiums to serve as presentation practice space. Due to increased expectations for group work in the curriculum, these rooms have been very heavily scheduled and students have been requesting more of them. In January 2008, a 24/5 space was opened which was immediately very successful.

Gate counts and anecdotal evidence indicated that traffic in the Libraries greatly increased after these improvements were made. Formal assessment, however, had not been conducted. In September 2007, the Libraries hosted a visit from the ARL Effective, Practical, Sustainable Assessment Team to advise us on best practices in assessment. One of their recommendations was that the University Libraries engage in more qualitative assessment. At the same time, the Libraries had undergone a strategic planning process in 2006-2007 that recommended expanding Archives space to provide more room for unique collections. The re-visioning process also called for

a larger instruction lab and reduced print government documents and reference collections. To assist us in planning future renovations it was determined that we should hire a space consultant.

A proposal was approved for bidding and bringing in an outside firm to evaluate Jackson Library's space usage and needs. Because a planned addition is years away, the primary goal of the consultant was to recommend changes in the building attributes to sustain growth for both collections and user spaces over the next 10 years. The specific goals outlined in the bid for a space consultant consisted of the following:

- Expand space allocated to Special Collections and University Archives, which had grown beyond current ability to house collections properly.
- Provide space to house a larger instructional lab, which currently seats 20 but needs to seat at least 40 students.
- Recommend an alternative location for the print Government Documents Collection.
- Provide recommendations on people-oriented space and service points including additional group study space (including electronically-enhanced group space), Digital Media Center, Data Services Center, current periodicals and microform readers.

Purpose of the Study

To learn more about how students use Jackson Library and their satisfaction with it, and to prepare for the consultants, a library space study was planned with both quantitative and qualitative methods to gather evidence. We also sought hard data to present to the space consultant for programming ideas related to future renovations and data to present to University Administration for funding requests. In addition, it was an opportunity to gain student input on previous changes and to plan for future needs and make sure our ideas were meeting student needs. Our study sought to learn:

- What areas of the Library students use;
- What furniture they prefer;
- Are they studying alone or in groups?
- Are they using Library materials or their own?
- When are they here? and
- What is the role of the Library in their academic life.

As evidenced in initial feedback from students,

user space needs were changing, so collection of data that would support students' expectations and needs of library space was crucial in developing credible and useful repurposing recommendations. It was determined that an important part of this process was to provide the space consultant with assessment information so that decisions were made from the user perspective.

This study was also about repurposing existing space in lieu of adding additional space; it was, therefore, important to ensure that a credible methodology and process was in place to guide recommendations. The study's importance to space repurposing was significant to ensure that the project could bridge the Libraries' needs for the next 8 to 10 years.

The study included three phases: an in-house survey, observation studies, and focus groups. The phases were designed to complement and support each other by using information gained from one to validate the others, plus provide a framework in which to operate. These phases all received IRB approval and followed the guidelines set forth by the UNCG's Office of Research Compliance.

In-house Survey

In November 2007, we started with an in-house survey conducted during one full week. The survey was a brief checklist (see Appendix 1) that took 5 minutes or less to complete. We set up a table in Jackson Library and staffed it with student employees for 10-12 hours a day. Each student that filled out the survey received a Libraries' key chain/ID card holder. We had 600 responses and a big factor in the large response rate was due to having peers staff the table which encouraged fellow students to take the survey. 84.1% of the respondents were undergraduate students and 10.7% were graduate students. Only 1.5% were faculty.

The checklist provided twelve options for what they did that day at the Library. They could choose all that applied so the results are not mutually exclusive. The top five activities indicate that the majority of them came to use a computer and/or to study quietly by themselves. Group study, however, did rank among the top five activities:
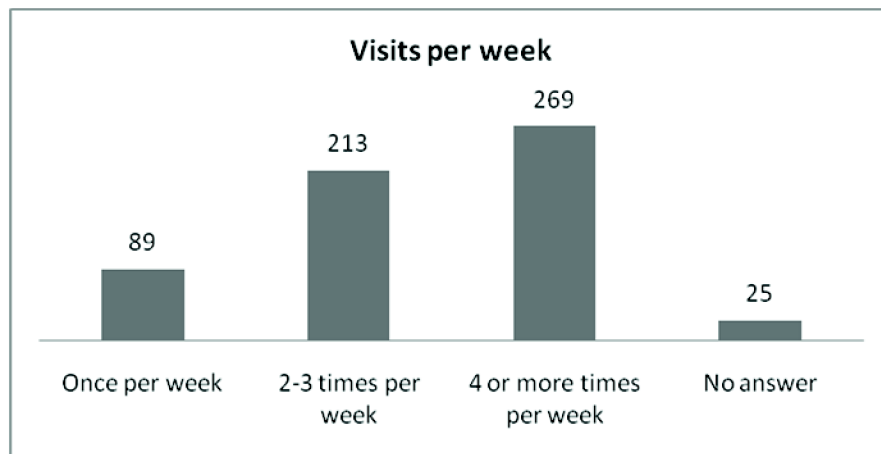
Figure 1
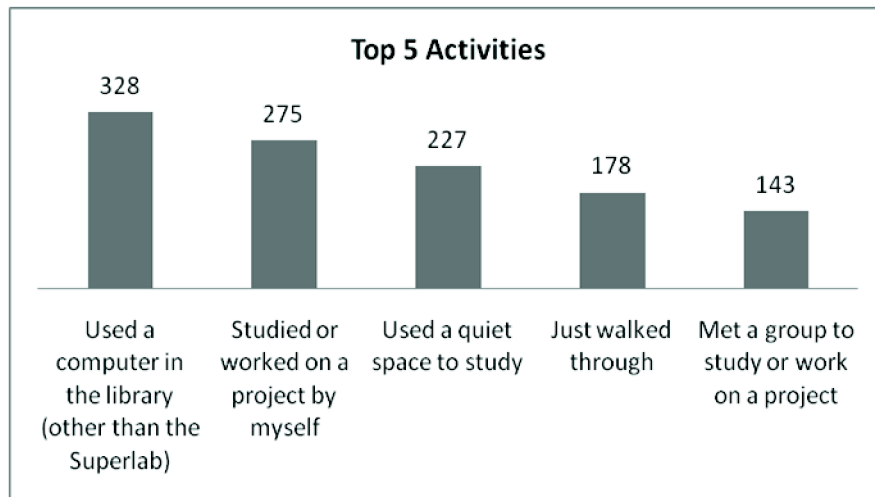
Students were also asked how many times a week they usually come to the Library and most respondents indicated they come several times a week:
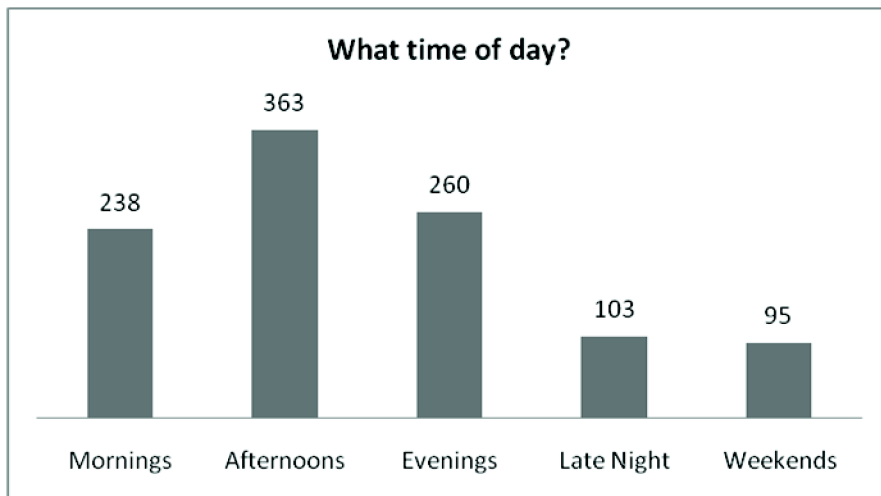
Figure 2

Visits per week

When asked what time of day they use the Library most responded that afternoons or evenings were the preferred times:

Figure 3

What time of day?

A space was provided for comments to improve the Library. Most suggestions requested longer hours (the survey was done before 24/5 was implemented), vending or a food court, better enforcement of quiet areas, additional group spaces, recommendations for specific books or journals and for more recreational material, more computers, color copiers and printers, a fax service, and complaints about the coldness of the building.
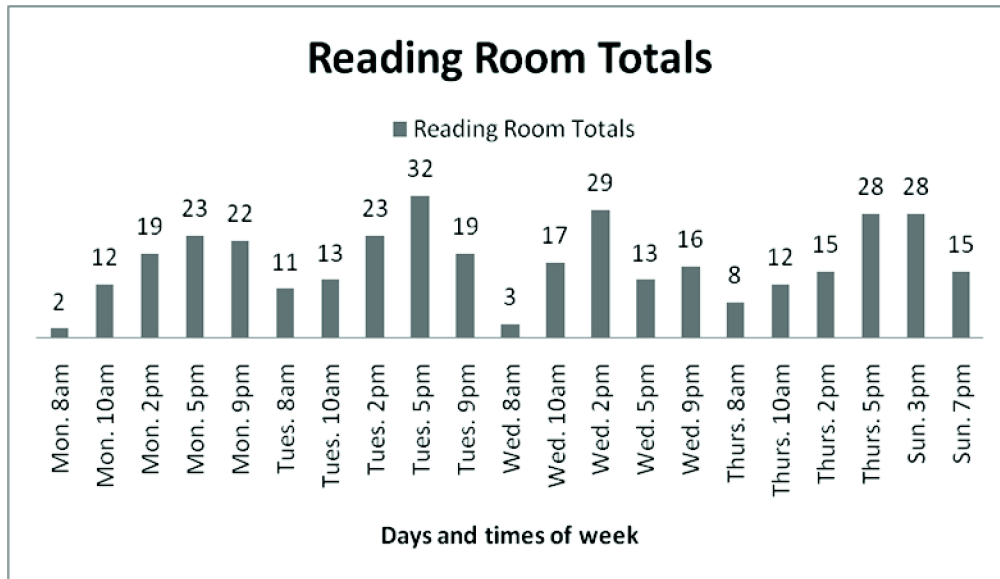
Observation Studies

To gain more information about use of the building we conducted twenty-two observations during various times of the day and evening one week in March 2008. A checklist (see Appendix II) was used

to record various activities of users in several public areas on the first floor and on one quiet floor and one group study floor. A student from UNCG's Library and Information Studies Department joined the study as a practicum project and conducted several of the observations.

For each area we did a total head count during each observation to determine the most populated times of the day. The Reading Room on our first floor is a large area where current periodicals and newspapers are kept. A variety of seating is available including comfortable chairs as well as tables and chairs. Seven login computers are also available.

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Figure 4

The observations confirmed the in-house survey that afternoons and evenings were the most populated times.

We also recorded how many people were studying alone, how many were studying in small groups (2-3 people) and how many were studying in large groups (4 or more). Again, the observations confirmed the in-house survey. In most areas of the Library the majority of users were working alone except for areas that were specifically designated for group work. Of those working in groups, most were in small groups rather than large ones.

Figure 5

Alone vs. Groups
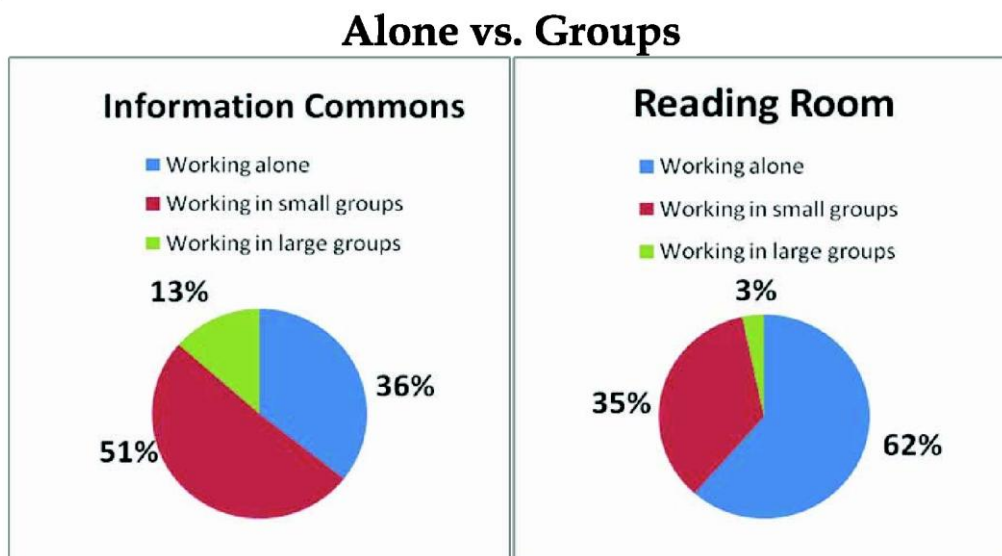
We also wanted to expand on the in-house survey to determine how many students were using library computers and how many were using their own laptops. Of the library computers, we noted how many were using login and how many were using open access workstations. In areas where computers are provided they are heavily used nearly all times of the day and are used more than laptops. In other areas where fewer computers are available students were using laptops.

Figure 6

Computer Usage
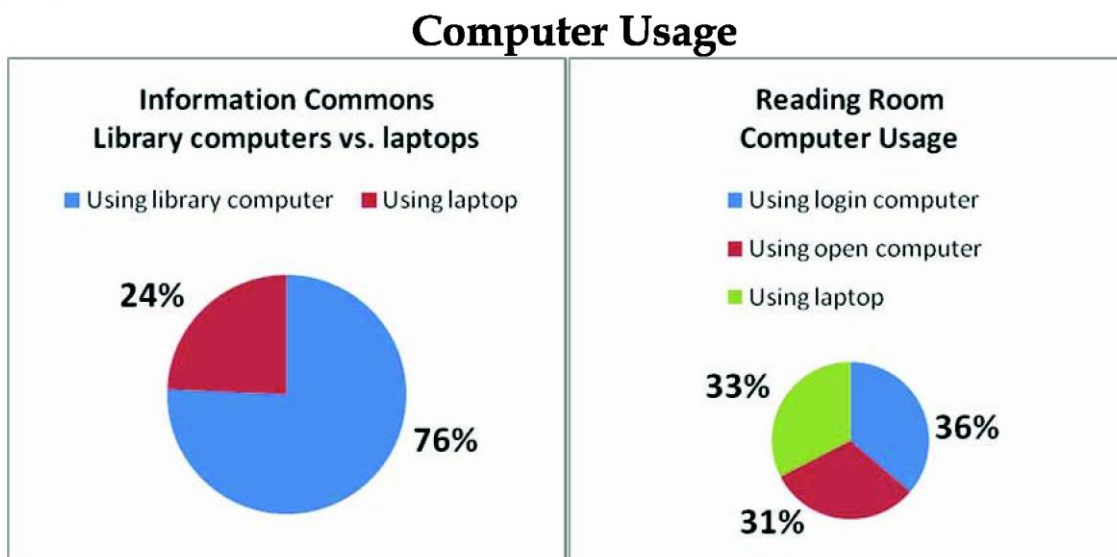
One factor that wasn't assessed in the initial survey was how many students come to the Library to use our materials and how many come to study their own. To determine if students were using library materials, observers were asked to note unobtrusively if users were using books with call numbers, periodicals, or newspapers, or if they were browsing in the stacks. In all areas of the Library the vast majority of students were using their own materials:
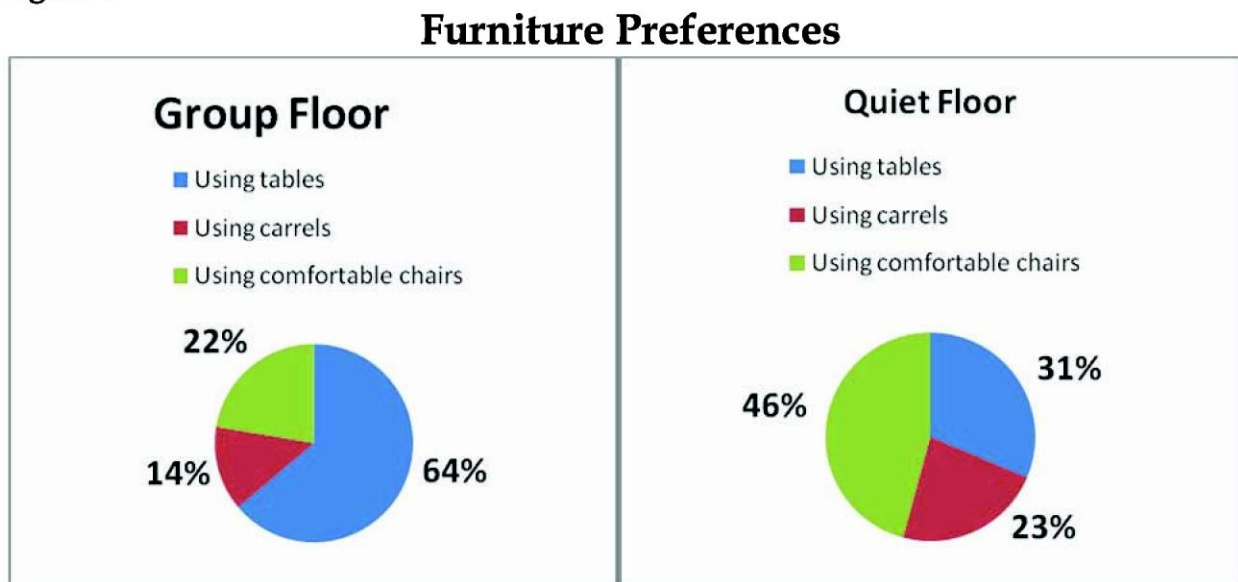
Figure 7

Using Materials

Reference Room
- Using reference book
- Using own materials
- Using reference and own materials

16% · 24% · 60%

Reading Room
- Using magazines or newspapers
- Using own materials
- Using library and own materials

12% · 17% · 71%
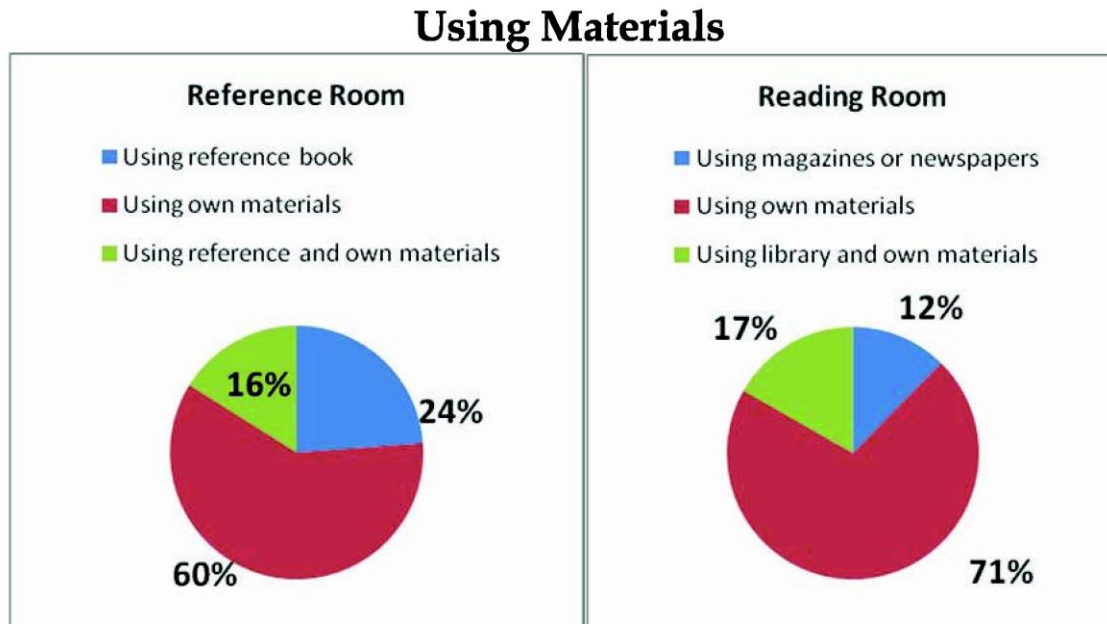
Another factor not covered in the survey was furniture preferences. In areas where different types of seating are available we noted how many were sitting at tables and how many were using comfortable chairs. In group areas, tables were preferred while in quiet areas soft seating was more popular:

Figure 8

Furniture Preferences

Group Floor
- Using tables
- Using carrels
- Using comfortable chairs

22% · 14% · 64%

Quiet Floor
- Using tables
- Using carrels
- Using comfortable chairs

31% · 46% · 23%

Focus Groups

Once the space consultants had begun their initial work and data from the surveys and observation studies had been gathered, it was determined that a qualitative evaluation of this information was needed. We chose focus group discussions as a useful tool for adding depth and perspective to the work accomplished so far. The preparation work for implementing this activity included reserving conference room space, creating a multi-dimensional schedule, providing for an incentive and advertising for participants through campus

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organizations, and a poster in the Library. The LIS student that worked with us on the observation study also assisted in the note taking and acted in a gatekeeper role for clarification of terms or language used or intent of comment from a student's point of view.

In April 2008, six focus group sessions were conducted coinciding with the space consultant's presentation of their first concept drawings. The students represented a good mix of undergraduate/graduate, traditional age/adult and on-campus/commuters. All students that participated received an iTunes gift card.

The sessions provided the opportunity to show the concept drawings in order to gain feedback and comments on the consultant's ideas presented so far. Other targeted topics that the groups were asked to respond to included: frequency of visiting the library and which entrance was used, what they do while in the library, if they use library materials or their own, and if they usually study alone or in groups. We also asked about the role of the Library in their educational experience (see Appendix III). The concept drawings also helped match these topics with appropriate locations in the Library.

Figure 9

Concept Drawings
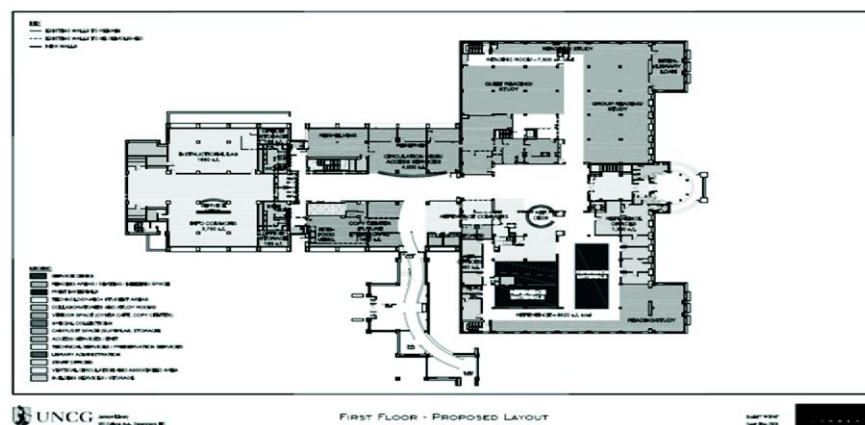
The focus group information was shared with the space consultants, particularly comments relating directly to changes being proposed on the concept drawings. This feedback provided the opportunity for the space consultants to make adjustments or tweak the ideas being proposed. Several important topics discussed greatly influenced the space consultant's report. For example, students' desire for services such as food and drink and enhanced copy and fax services reinforced these ideas and affected their location and exposure. Many students commented that the current Check-Out Desk and security gates provided a bottleneck and they favored the concept that moved it to another location. Another example was the changing purpose of the Superlab. Because most students now own a computer they aren't as dependent on campus labs but still like to use them for convenience while on campus.

Student feedback from the focus groups provided useful information on their perceptions, desires, and needs as it related to space. And while their overall view of the library as a place was important, the comfort and convenience provided makes a difference in how they use the space productively. A change in the need for a large computer lab is an example of this view. Highlights of the focus group results included:

- Jackson Library is important as a studying and gathering place both for commuters who don't want to drive home or elsewhere and for residential students who need to stop between classes or find a quiet place to study.

- Undergraduate students surveyed and who participated in discussions use the Library more for the space it provides, rather than the materials it offers.

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. Upper-level undergraduates and graduate students expressed a stronger need for materials, especially electronic resources. This is consistent with field literature but had not been a distinction we had made before.

- Most students have their own computers now, either because of the campus laptop initiative begun in fall 2007 or as a normal household component. These developments change their need for computer accessibility

and the amount of exposure within the building.

- Access both physically and virtually is important. We already knew this but the context was more clearly defined as it relates to comfort and convenience.

- Food and drink are important for convenience and comfort and helps keep students in the Library for longer periods of time.

Figure 10

Summarized Responses
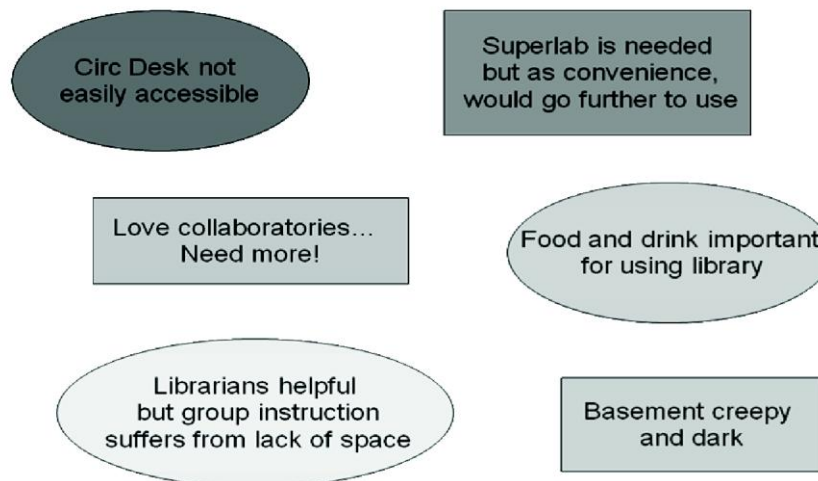
The focus group discussions provided significant influence on the final space consultant's report and were the impetus for changes to several of the recommendations. Examples of this influence included:

- pepositioning the Access Services desk;
- moving the SuperLab to a more destination-focused location;
- expanding electronically-enhanced group spaces;
- remodeling the main building basement to create space more appropriate to people and services rather than materials;
- expanding services such as café, copy center and newsroom ideas; and
- expanding the instructional lab.

Other Insights Gained

The assessment project also provided insight into other areas not specifically related to space assessment. Students commented that even though they own laptops they prefer not to bring them to campus. We discovered a lack of awareness of many services such as IM reference, printing, lockers, and carrels. Since many of the participants were upperclassmen we learned that many had not received library instruction as freshmen. Because we now have a first-year instruction coordinator, we hope that situation has already been remedied. Several actions already took place in the fall of 2008 to address issues discovered in the assessment:

- expanded 24/5 space and added vending;
- implemented laptop checkout;
- increased popular seating options;

- offered carrels to all students in addition to graduate and honors students;
- installed a digital messaging board to advertise Libraries services and programs to users and those who "just walk through";
- increased marketing of IM and other services;
- appointment of an assessment team that will develop a plan and oversee assessment for the University Libraries; and
- appointment of a Post Space Assessment Committee to follow up on recommendations and make future plans.

Summary and Conclusions

Jackson Library is facing a problem not uncommon to academic libraries that have seen substantial growth over the years. Although we need to expand to meet the needs of a growing academic community, funding is not available because of higher priority needs at the University. Adapting older buildings to current needs is a universal challenge. Our assessment study is a very practical one that can easily be applied at other institutions.

The study provided data that was useful in a variety of ways. It provided firm evidence for things we suspected such as the building being more important than materials for undergraduates and the fact that the Superlab was not as necessary as it once was. There were also some surprises! We had no idea that copying and faxing were still such important services, for example. We also didn't realize that the Check-Out Desk bottleneck was an issue.

It was extremely useful to have student feedback for the space consultant. Their report provided a five-year plan for renovations that included input from the study. In addition library staff was assessed for their reactions and responses to proposed changes and students perceptions of anticipated changes. The final report was shared with the University's Dean's Council, which includes the Provost and deans from the College of Arts and Sciences and each School, with a request for funding. It will also be presented to donors as funding opportunities. The space report recommendations take into account plans for a future addition and serves as a transition to that plan. Because the data and methodology from this study were so useful we will engage in similar

activities for future space planning.

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Appendix I

In-house survey

Help Us Help You -- Tell us about your Library visit!
What did you do at the Library today? (check all that apply)
___Met a group to study or work on a project (1)
___Studied or worked on a project by myself (2)
___Used a computer in the Library (other than the Superlab) (3)
___Got help from a librarian for my research (4)
___Checked out a book (5)
___Read a print magazine or newspaper (6)
 ___Used a book in the Reference area on the 1st floor (7)
___Used a quiet space to study (8)
___Attended an instructional class (9)
___Used a group computer lab (Collaboratory) (10)
___Just walked through (11)
___Other (please explain) (12)

Was your Library visit successful? ____Yes (1) ___Partly (2) ____No (3)
Please comment: (You may use the back of this sheet if needed)

When you visit the library you usually:

- Use which entrance? ___Connector (1) ___College Street entrance (2)
- Come how many times a week? ___once (1) ___2 to 3 (2) ___4 or more (3)
- Spend how much time? ___in and out (1) ___10 to 15 minutes (2)
  ___an hour (3) ___2 to 3 hours (4) ___more than 3 hours (5)

Visit what time of day? ___mornings (1) ___afternoon (2) ___evenings (3)
___late night (4) ___weekends (5)

Information about you:
___Undergraduate student

   (UNCG) (1) ___Graduate Student (UNCG) (2) ___Faculty (UNCG) (3) ___Student from another college or

   university (4)

___Faculty from another college or
   university (5)

___Community Patron (6)
___ Friends of the Libraries (7)
___High School student (8)
___Other (please explain) (9)

If you had one suggestion to improve the Library what would it be?

Appendix II

Observation Study Checklist

Date_____   Day_____
Time _____

Reference Room
Available seating 108
Available computers 17
(7 open access, 9 login)
Total sitting in room_____
___Number of people working or sitting alone
___Number of people in small groups (2-3)
___Number of people in large groups (4+)

___Number using a login computer
___Number using an open computer
___Number using a laptop
___Number using a reference book
___Number using their own materials
___Number using both reference and their own materials

Reading Room
Seats 103
Computers 7
Total sitting in room_____
___Number of people working or sitting alone
___Number of people in small groups (2-3)
___Number of people in large groups (4+)
___Number using a library computer

___Number using a laptop
___Number reading magazines or newspapers
___Number using their own materials
___Number using library and their own materials

Information Commons
Seats 58
Computers 5
Total sitting in room_____
___Number of people working or sitting alone
___Number of people in small groups (2-3)
___Number of people in large groups (4+)
___Number using a library computer
___Number using a laptop
___Number using their own materials
___Number using library materials
___Number using library and their own materials

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2nd floor Tower (group study floor)

Seats 90
Computers 1
Total sitting on floor_____
___Number of people working or sitting alone
___Number of people in small groups (2-3)
___Number of people in large groups (4+)
___Number using a library computer
___Number using a laptop
___Number using their own materials
___Number using library materials
___Number using library and their own materials
___Number using 261
___Number in 274a
 ___Number in 274b
___Number at tables
___Number at carrels
___Number in comfortable chairs

9th floor Tower (quiet floor)
Seats 54
Computers 3
Total sitting in room_____
___Number of people working or sitting alone
___Number of people in small groups (2-3)
___Number of people in large groups (4+)
___Number using a library computer
___Number using a laptop
___Number using their own materials
___Number using library materials
___Number using library and their own materials
___Number at tables
___Number in comfortable chairs
___Number at carrels
___Number in Jewish Studies Room

Additional Observations:

Definitions:

Counting groups: 3 groups of 2 = 6 people
Using Library materials: a judgment call. Look for books with call numbers on the spine or magazines and newspapers.

Appendix III

Focus Group Questions

Dorm Students
Non residential undergraduates
Graduate Students
Music Students

1. How often do you come to the Library?

   a. How long do you usually stay?
   b. What do you do (purpose)?
   c. Do you also visit either side – EUC or caf?

2. When you use a library computer, what do you use it for?

   a. School Work, ex. Online class, research, library web page, shopping?
   b. Do you ever bring your own computer?

3. What entrance do you usually use?

   a. College Ave., why, where do you typically come from?
   b. Connector, coming from EUC, parking or what?

4. What is the best thing about the Library?

   a. Services used?

   b. Space attributes type of seating, noise or no noise, study carrels, materials on hand, being with people, etc.?

5. What needs the most improvement?

   a. Match improvement needs to study habits, for example, it's too noisy (I'm looking for quiet) or I can't get together with my study group, (not enough group space.

6. What do you see as the role of the Library?

   a. Related to class work?
   b. Related to college life?

   c. Related to other expectations such as using the public library as a child