Breaking Down Barriers for Student Parents and Caregivers with Family-Friendly Library Spaces

Anne Cooper Moore[a]*, Rebeca Croxton[b] and Lindsey Sprague[c]

[a]J. Murrey Atkins Library, The University of North Carolina at Charlotte, Charlotte, North Carolina; [b]J. Murrey Atkins Library, The University of North Carolina at Charlotte, Charlotte, North Carolina; [c]J. Murrey Atkins Library, The University of North Carolina at Charlotte, Charlotte, North Carolina

*Email of corresponding author: amoor168@uncc.edu

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In 2016, J. Murrey Atkins Library at the University of North Carolina at Charlotte opened a reservable study room specifically for student parents and caregivers. Student parents comprise 25.6% of the total student population and this study room created an important space on campus where parents can study with children. In 2018, the library opened a second family-friendly study room to meet the needs of our growing campus community. To inform the design of the room, the library conducted a mixed methods research study that included a user survey, an examination of room reservation and usage data, and one-on-one user interviews with student parents and caregivers. This paper focuses on the 2018 user-centered design process used to inform the development of the second, family-friendly, study room in the library.

Key words: *assessment, academic libraries, student parents, user experience (UX), diversity and inclusion*

Introduction

As academic libraries are increasingly challenged to make difficult decisions about the allocation of their physical spaces amidst shifting student populations and demands, libraries at higher education institutions might consider how they serve students with young children. No longer are adult students and student parents anomalies on college campuses. The National Center for Education Statistics (2018) recently reported that 45% of part-time and 11% of full-time students enrolled in public 4-year institutions were over the age of 24. Nationally, student parents make up 26% of the total undergraduate student body (Noll, Reichlin, & Gault, 2017, p. 1).

In response to this increasing diversity at one public, 4-year university in the southeast with a student population of 29,317 (25.6% adult students), the university library, in partnership with the adult student services office and with funding support from a local non-profit (ANSWER Scholarship) launched the library's first Family Friendly Library Room in 2016. The ANSWER Scholarship provides scholarships and grants to assist women raising school-age children to fulfill their dreams of earning a college degree. Student parents reserve the Family Friendly Library Room, which is outfitted with adult computers and study tables; play space,

DVD's, toys, and books for children; and an early literacy computer (see Figure 1). The room enables student parents to study while their children play safely nearby. Student parents know they will have productive study time before they leave home with a child because they have reserved the room in advance. They are confident their child(ren) will be safe and engaged with suitable toys, books, and games while not disturbing other students. Since the library is open 24/5 hours during the fall and spring semesters, parents have the flexibility to bring their child(ren) with them when it is convenient for them.

<Insert Figure 1>

The family-friendly, library room concept is becoming increasingly popular in both public and academic libraries and has helped student parents at universities succeed in achieving their academic goals. Student parents are an underserved population that has had to overcome myriad barriers to finish school. Significant numbers of first generation, transfer, and return-to-college students who are now trying to complete their degrees are also parents of young children.

In response to the increasing popularity of this family-friendly space and the propensity of students to work in groups, the library developed a second room for group study. To develop this new room from a student-centered perspective, the library conducted a mixed methods research study in spring 2018 with multiple data points including an online survey of all students who had reserved the initial family-friendly space since it opened in 2016, one-on-one interviews with nine student parents who had used the room with their children, information received from feedback forms available in the family-friendly room, and room reservation data. The findings from this study provided the information needed to design the new family-friendly, group-study room (opened in summer 2018) and update the current space. Usage statistics from the 2018-2019 academic year suggest both family-friendly spaces are growing in popularity and helping fulfill an essential need for an expanding group of learners who often face barriers when they must bring their children with them to campus.

Literature Review

While many family-friendly spaces exist in public libraries, there are only a small number of published articles that address the development of spaces for student parents and caregivers in academic libraries. These articles tend to discuss the initial assessment of need for family-friendly, library spaces, the response from the campus community to the new space, and plans for improving the space in the future. Of these libraries, most tended to use assessments in the beginning phase of the project to understand the need for a family-friendly space on campus, but few libraries involved users in the initial design of the space. Most libraries partnered with other campus organizations to develop the spaces. Interestingly, most of the family-friendly rooms in academic libraries can be used by multiple families at a time. Within the current literature, no other publications address the development of a reservable family-friendly, study space specifically for group study meant for use by one family at a time.

Assessing Need and Preferences

Academic libraries with family-friendly, study spaces have largely assessed the initial need for the space by evaluating demographic data on the percentage of student parents in the campus community. Few libraries, however, mentioned conducting research with users to inform the design and features of the family-friendly spaces they created to serve this population's needs. Portland State University Library initially assessed the need for a family-friendly, library space, but did not mention additional assessments with users to inform the design of the space (Petit, 2014). They plan to conduct a follow-up survey with users of the family-friendly, study space to learn about possibilities for improvement. Similarly, Robarts Library at the University of Toronto identified the need for a family-friendly, study space on campus through a study of campus demographics and comments received in a campus student survey requesting more spaces on campus for student parents, but did not mention involving users in the design of the space (Carliner & Everall, 2019).

One notable exception is the Harold B. Lee Library at Brigham Young University (BYU), where librarians and students employed user-centered design practices to inform the development of a new space for student parents. The assessment librarian involved a capstone

class of Sociology students in assessing the needs of student parents to inform the design of the family-friendly, study room (Paustenbaugh & Bellington, 2018). Sociology students visited nearby public and academic libraries with children's areas or dedicated family-friendly, study spaces and conducted interviews with the Library Directors at each location. They also conducted both a survey and focus groups with student parents on campus.

Most academic libraries partner with other organizations on campus that offer childcare or otherwise serve student parents in the creation of family-friendly spaces within the library. At the University of Toronto's Robarts Library, a team of library employees from the public services and facilities departments partnered with the university's Family Care Office to develop the space (Carliner & Everall, 2019). The Family Care Office served "in an advisory capacity on the project and to address concerns about risk management and liability. The Family Care Office assured the library that there were no additional liabilities or risk to having children in the library" (Carliner & Everall, 2019, p. 102). The space was financed from a special fund designated by the Library Director for innovative projects outside the scope of routine library services. At Portland State University (PSU), the Library partnered with the Helen Gordon Child Development Center, a PSU-based preschool, to create the family-friendly, study space. Their partnership involved contributions from both parties: the Child Development Center "provided the toys, books, and furnishings" and the Library converted "an old third floor storage room into a family-friendly, study space for the exclusive use of students with children" (Petit, 2014, p. 37). The Harold B. Young Library at Brigham Young University received a grant from an anonymous donor to fund the development of their family-friendly, library space, and, as described above, partnered with a campus Sociology class to design the features of the room.

Since research available in the literature related to the development of family-friendly spaces is limited, the researchers posed three primary research questions to inform the design of the new family-friendly space that was earmarked to open later that year and identify areas of improvement of the first family-friendly space.

Research Questions:

1. What are the usage patterns of the first Family Friendly Library Room?

2. What features and design elements should be included in the second Family Friendly Library Room?

3. What improvements should be made to the current Family Friendly Library Room to ensure it meets the needs of student parents and families?

Methods

To answer the research questions for this study, a mixed methods approach was used that included both qualitative and quantitative measures. Methods included analysis of usage statistics of the first Family Friendly Library Room, an online survey sent to all students who had reserved the Family Friendly Library Room since it opened in 2016, and one-on-one interviews with volunteers who completed the survey. Usage statistics compiled one-year after the opening of the second-family-friendly room are also included.

Participants

Usage statistics and the survey distribution list were gathered from the library's online reservation system, which students use to reserve the Family Friendly Library Room. From its opening in July 2016 through May 1, 2018, 104 unique individuals had made at least one reservation, with 274 total reservations during that time period.

The reservation data were used to create an email distribution list for the online survey. Overall, survey invitations were sent to 96 active email addresses, with 22 responses received, resulting in a 22.9% response rate. Of the survey respondents, 19 individuals provided comments to the open-ended survey items. The majority of participants were female (85.7%, n=18) and over the age of 25 (76.2%, n=16). More than half of the participants (59.1%, n=13) entered the university as transfer students. Further demographic information is outlined in Table 1.

<Insert Table 1>

Nine volunteers who completed the Family Friendly Library Room Survey participated in one-on-one interviews with a member of the assessment team. Of these participants, the majority had two children (66.7%, n=6), and a third of the participants had reserved the Family Friendly

Library Room one or two times (33.3%, n=3), while the remaining participants had reserved it five or more times (44.4%, n=4)), or the information was not available (22.2%, n=2). Survey participant profiles are outlined in Table 2.

<Insert Table 2>

Instruments

Survey

A 22-question online survey was sent via email invitation in mid-April, 2018, with two follow-up weekly reminders, to all individuals with active UNC Charlotte email addresses who had reserved the Family Friendly Library Room since it opened in July 2016. Questions included 10 demographic/categorical questions, 5 open-ended response items, 3 Likert-type scale questions, and 4 questions relating to interest in entering an incentive drawing and/or participating in a follow-up interview. Individuals who completed the survey had an opportunity to enter a drawing to win one of three $10 gift cards to Starbucks as a participation incentive. The survey instrument is available in Appendix A.

Interview Protocol

A 10-question semi-structured interview protocol was developed to help answer the three research questions for the study (Appendix B). One-on-one interviews were conducted by the library's user experience librarian and took place via phone or face-to-face in the library. All participants who participated in an interview received a $10 Starbucks gift card as a token of appreciation. Interviews were audio recorded and verbatim transcripts prepared for analysis.

Data Analysis

Family Friendly Library Room reservation data were analyzed to determine whether/what patterns patterns exist related to the usage. Quantitative interview data were analyzed using descriptive statistics including frequencies and means. Since the participant pool was limited in

size, inferential statistical comparisons were not conducted. Qualitative data collected from both the open-ended survey responses and interview transcripts underwent thematic analysis using NVivo Pro. One member of the research team conducted the primary thematic analysis, with comments and themes undergoing a secondary review by one of the other researchers to ensure agreement.

Results

Study findings are organized into the following sections: (1) Usage Patterns, (2) Satisfaction with Current Room, (3) Challenges with Current Room, and (4) Desired Features and Design Elements.

Usage Patterns

Family Friendly Library Room reservation data were analyzed from the point of its initial opening in July 2016 through April 30, 2018. During this time period, there were 104 unique users who used the room a total of 274 times. More than two-thirds of the unique users (65.4%, n=68) used the room one or two times, 20.2% (n=21) used the room 3-4 times, 11.5% (n=12) used the room 5-8 times, and 2.9% (n=3) used the room 9 or more times. One of the unique users used the Family Friendly Library Room 21 times. These frequencies align fairly well with the survey responses, with just over half of the participants (53.3%, n=8) noting that they used the room 1-2 times. Findings related to usage patterns are further outlined in Table 3.

<Insert Table 3>

An analysis of reservation data by time suggests that the Family Friendly Library Room is most typically used on weekdays, though there are many who use the room on weekends as well, particularly on Sundays. Peak times for the Family Friendly Library Room are in the afternoons from 1-4 p.m., with usage tapering off noticeably in the evenings (see Figure 2).

<Insert Figure 2>

Both reservation and survey data suggests that students who use the Family Friendly Library Room most typically stay for two hours or more (reservation data 88.0%, n=241; survey data 93.3%, n=14). It is much less frequent for the room to be used for one hour or less (reservation data 12.0%, n=33; survey data 6.7%, n=1). Finally, a review of reservation, survey, and interview data suggest that most students will typically bring one or two children with them to the library (reservation data 72.6%, n=199; survey data 85.8%, n=12; interview data 88.9%, n=8). These findings are further outlined in Table 3.

Analysis of the survey and interview data further revealed that the room is used by both parents and other types of caregivers. Two interview participants mentioned that they bring their siblings with them to the room when they are responsible for their care and need to study in the library. One participant noted, "I have a special needs sister that I take care of so she will go with me into the room and it's just kind of something to keep her occupied while I'm studying or doing whatever has to get done (participant 5)."

Satisfaction with Current Room

Survey participants were asked a series of Likert-type scale questions relating to the importance of the Family Friendly Library Room for completing their education, their likelihood of using it again, and their satisfaction with a variety of its features using a 5-point scale (1=lowest value / 5=highest value). Analyses of these quantitative data, together with the open-ended survey and interview responses, suggest that participants are largely satisfied with the first Family Friendly Library Room, are very likely to use the room in the future, and are thankful that the room is available to them and their families.

All survey scale items related to importance (M=3.9, SD=1.2), likelihood of visiting (M=4.2, SD=1.0), and satisfaction received above-average ratings (Mean > 3.0). In particular, the Availability of Room (M=4.6, SD=0.8) and the Reservation System (M=4.5, SD=0.8) received the highest overall mean scores. While still above average, the lowest mean scores related to Size of Room (M=3.5, 1.3), Age Appropriate Toys and Books (M=3.7, SD=1.2), Children's Space (M=3.7, SD=1.0), and Work Space (M=3.7, SD=1.2). These mean ratings are outlined in Table 4.

<Insert Table 4>

A common thread noted throughout interview and survey responses was the expression of gratitude that the library created a family-friendly space that is specifically tailored for their needs. Creation of this space allows student parents and caregivers to be present on campus and helps facilitate the completion of their academic programs. One participant noted, "It has a lot of benefits, you know. I sit in the library and this is the thing that is helping me finish my education (participant 8)." Another explained, "It's a great opportunity for those parents who don't have childcare to be able to focus on their studies (participant 4)." For some, this appreciation and enthusiasm has spread to their children. One student shared,

> The study room is precious. I like it so much. It has inspired me, helped me, and makes my life easier. Actually I'm not preparing those words, they are really from the bottom of my heart...I promised my eldest daughter, she's almost 5 years, that if she was good behaving I would take her to a really, really wonderful place. So I prepared her bag and food and everything, and we booked the room, and when we went she was like 'Wow! You are really smart! You are a really good mom! This is really a good place!' She was really happy. When we got home, she told her brother, who is four years old. She started to tell me 'Mommy I will be good!' so we can go to the room (participant 6).

Challenges with Current Family Friendly Library Room

Despite the overall satisfaction with and gratitude for the room, there are several challenges that survey participants noted about the initial Family Friendly Library Room. These include lack of age-appropriate toys and activities for older children, the small size of the space, and confusion when another family had also reserved the room at the same time. These challenges are further described below.

Room Caters to Young Children

Across both the survey and interview responses, it became apparent that Family Friendly Library Room users perceived the toys and activities in the room were geared towards younger children, with a lack of activities available for older children. One participant explained,

> There's just not enough things for like older kids; he's 11. For my daughter, she gets bored easily. Like it would be good to have books catered to each child's age, maybe like an age range, just more things for her to do (participant 12).

Likewise, participant 4 noted, "I think it's structured great for people with smaller children. Like I said my children are older, but if I had smaller children I think it would be a great space."

Small Space

In multiple interviews and open-ended survey responses, room users discussed the size of the current room which was initially designed to allow more than family to use it at the same time. They described feeling cramped in the current space when more than one family was using it or when they brought younger children with them who are more active and on the floor. One participant said, "I feel the space is small (participant 9)," while another explained,

> It has the two desktops, which can't fit two families. I went there two times when the one family, they have a lot of children and I have all my children, so the room is not gonna fit both of us. So I left...It wasn't big enough for both families (participant 8).

Another student noted, "So, we as parents just need enough room to study. Enough leg and arm room to study, but the kids just need a whole lot more room to play (participant 12)."

Confusion about Multiple Families

Related to challenges with the small space, many participants expressed confusion or uncertainty about multiple families reserving the room at the same time. In this initial Family Friendly Library Room there were two desktop computers that could be reserved by students. It became apparent when talking with interview participants that many of the room's users believed that

they were reserving the room itself rather than just a computer in the room. Participant 7 explained,

> So I reserved the room online and then when I showed up, there was also somebody else that was in the room that didn't have kids. And I was totally fine with them being in the room, but she was telling me that she didn't realize that when you reserve it online, it doesn't say that it's the Family Friendly Library Room, so I think there was a little bit of a misunderstanding there… I think with the room, two people can reserve it and that's exactly what we did. Two people just reserved it at the same time.

Participant 9 had a similar experience, "I think last semester once I reserved the room and another family just walked in. And I didn't know if it was like a one person, like one family, because I had reserved it and they just like walked in. And I didn't want to kick them out. I just felt the space was too small for extra people … I really had an impression that you could reserve the room like one person, like the study rooms downstairs. That's really what I thought (participant 9)." These comments suggested that the library may need to revisit the room reservation policy and review communications about room usage.

Desired Features and Design Elements
Interview and survey participants were asked what they would like the new Family Friendly Library Room to include as well as for their recommendations for improvements that may be made to the current Family Friendly Library Room. Overall, participants suggested: (1) new types of furniture including comfortable seating and more surface space for working, (2) ideal amenities including a bathroom, a window, a printer in the room, (3) suggestions for the layout of the second Family Friendly Library Room, and (4) suggestions of engaging toys and activities for the children. These recommendations are further described below.

Furniture and Work Space
Interview participants and survey respondents alike discussed changes they would like to see to the furniture in the room and ideal furniture in the new room. Multiple study participants

expressed the need for a couch where their children could take naps or rest without having to sleep on the floor. Participant 12 explained,

> My daughter plays at preschool until 1:00 and sometimes she's really tired, so sometimes I have to take her home, but if I was able to, if there was like a little kid's couch or something that she could sleep on, that would be helpful too, because then she could just take a nap there, and then I wouldn't have to go home.

Another participant wished for a "comfortable study space with comfy chairs to study (participant 12)."

Many other study participants expressed frustration with the lack of available seating in the room. While this may be a constraint of the current small size of the room, parents and caregivers who use the room frequently need to borrow chairs from outside the room to accommodate their children. Participant 8 noted, "there is not even enough seats for my kids so we have to borrow chairs so they get a seat...I would add more chairs," while another student explained, "there aren't many places to sit...I remember an instance also when I had to grab a chair from the outside and there wasn't a lot of room in the room (participant 9)."

Another common thread among the comments was a need for more surface/work space such as a larger table where a student could spread out, student groups could meet, or students and parents could sit together at the same table. Participant 8 explained, "If I'm working on projects and I have to use two computers at the same time … and I have my books … it's not going to fit." Another student noted that "a table for groups to meet would be useful (participant 2)," while another participant would appreciate a common table

> where you can actually sit across from your children or like next to your children. So that way you can be working on your stuff and if they ask you a question you don't have to physically get up and lose concentration on what you're doing (participant 13).

Ideal Amenities

When asked to outline their ideal design of the future Family Friendly Library Room, multiple respondents mentioned particular amenities that would improve their experience using the room including a printer/copier, an adjoining restroom, a window, and cleaning supplies. Regarding a printer/copier, participant 4 explained,

> You have to go out and get it and you have to come back … You don't want to just leave them in the room by themselves. You've got to go to the printer, and go back to the room, and if it's not right you've gotta go back again.

Other participants noted that having a restroom would be ideal. One student noted, "I wish there was an attached bathroom that my kids could use so I wouldn't have to stop studying to take them to the bathroom (participant 18)," while another explained, "When one of them [the kids] wants the bathroom, the other wants to play, so I take them both. So if the room had a suite, if there is like a bathroom even...that would be the perfect idea (participant 6)." Other participants wished there was a window. One participant explained, "A window would be nice because children get claustrophobic and if they can look out the window they can just look out for a while and then go back to the things, and natural light is always best (participant 13)." Finally, multiple interview participants remarked on the importance of having cleaning supplies and a garbage in the space. The ability to use the hand sanitizer and Clorox wipes to clean the room before and after using it are important to the room's users.

Activities for Children

Multiple interview participants suggested dividing the future room into "stations" or "sections" to separate older and younger children's toys and activities. Other respondents echoed this idea and suggested different types of areas for play like floor space for babies and toddlers and toys for younger children on a shelf. Participant 7 suggested "maybe having sort of just like a division in part like older kids' toys and maybe a little bit of space for younger kids who are more on the floor." Another participant thought it would be nice to have "a gaming part on one side and the TV in another place, and then the bookshelf with the bean chairs … And then have the computers where the parents can see (participant 4)."

Overall, parents and caregivers think the toys and activities that are available to children in the room are mostly suitable for their children's needs. These include children's books, an early literacy computer with games (similar to what is found in many children's sections at public libraries), whiteboard with markers, crayons, blank paper, and a variety of toys. Study participants did, however, share many suggestions for how the library can improve the current offerings. Suggestions included more chapter books, coloring books, newer movies, video games for older children, and STEM toys. One parent of a preschool aged child explained,

> She's really interested in puzzles...she likes to color, she likes magnets … There's like, you know like those STEM toys that are for high level thinkers, if you could get like one or two STEM toys, some of the best ones that kids like, where they have to think a little bit to put the toy together … and it's educational too (participant 12).

Other parents with school-age children appreciated the computers and also suggested video games. Participant 7 explained,

> My oldest one … I knew it wasn't a problem as soon as I saw there was a computer in there. I think having that kid's computer, honestly, I don't know what I would have done without it as far as entertaining him.

Another participant suggesting a gaming system, "... if they had like an Xbox or a PlayStation or something like that, that would be really good (participant 4)." Finally, many study participants appreciated the availability of a TV, but suggested the library provide, "current movies (participant 12)," the "ability to cast to a TV for child entertainment (participant 3)," or having the TV hooked up to "Amazon Prime or something like that so they can have something to watch [that is] automatically loaded in (participant 12)."

Discussion

Overall, study findings suggest that students who use the Family Friendly Library Room value its availability and feel it is important for them to be able to complete their education. They are

largely satisfied with the room and its features, though had a variety of suggestions to help guide the design of the second Family Friendly Library Room and make some adjustments to the first Family Friendly Library Room. Most notably, study participants noted the need for: (1) expanding the selection of toys and activities to occupy their children who range in ages from infants to older elementary and middle school children, (2) additional seating, (3) more work space, (4) limiting the occupancy of each room to one family at a time, 5) having a space where a student parent/caregiver could host a study group, and (6) a printer/copier in close proximity to the room. Ideally, students also shared that they would appreciate a window and a suite-style space with an attached restroom.

Before we outfitted the new room, we installed changing tables in both the men's and women's restrooms nearest the rooms, which are side by side. We had a networked printer-copier installed just outside the rooms, so the parent could pick up a print-out or copy something while still 5-10 feet from the child. The windows in the doors offer a view outside through an exterior window. The rooms are in a quiet area of the 2nd floor near the juvenile book collection.

The library used the findings of this study to guide the development of the second Family Friendly Library Room that accommodates study groups and made many updates to the initial room. The second room is slightly larger than the first room, which enabled us to fit a full, U-shaped study table (with 6 outlets) and 5 chairs on wheels, a couch for elementary/middle school aged children, and a comfortable chair as well as a second literacy computer and DVD player with headphones (see Figures 3 - 5). The room also has an easel for drawing as well as coloring/activity books and markers. Books, DVD's, and toys were selected by the Education Librarian to cater to elementary-school-aged children; whereas, the materials purchased for the first room were for babies, toddlers, and preschoolers. Materials can be moved between the rooms readily as parents have access to both rooms and can trade with each other. A large visual display is mounted above the study table along with a SMART KAPP 84" productivity whiteboard. Other walls in the room are writable.

<Insert Figure 3, Figure 4, and Figure 5>

The myriad expressions of appreciation shared by the study participants provide affirmation to the library that these spaces are beneficial to the success of student parents and caregivers. Further, gaining insights from individuals who regularly use these spaces is a reminder that in order to become a user centered library, patrons should be at the center of the conversation and given a voice to share their needs, ideas, and expectations.

One year after the opening of the second group, family-friendly room and remodeling of the first room, the total number of reservations placed for these spaces increased by 308% (n=302 reservations in 2018-2019) over the previous year (n=74 reservations in 2017-2018) (see Figure 5). Of the 302 reservations placed during 2018-2019, 55% (n=165) were for the new room that can accommodate study groups, and 45% (n=137) for the newly-remodeled, single, family-friendly room (see Figure 6). These findings suggest that the family-friendly spaces are increasing in popularity and that the library is moving in the right direction for meeting the needs of student parents and caregivers.

<Insert Figure 6>

Conclusions and Recommendations

Student parents are an increasing segment of today's diverse library user population. To achieve their educational goals efficiently, student parents need a place they can study (on campus) with their children engaged and happy alongside them. The library is the logical place for such a space because it is the place where other students study and provides all of the tools, technologies, equipment, services, and support designed to encourage independent student success. It is important that a family-friendly, library space allow student parents to reserve it in advance, have the conveniences other students need nearby, and have features that will stimulate and keep their children safe.

Most libraries will repurpose existing space to create a family-friendly, library room and a conference room or large group study room will likely work well. But it is important that the room be large enough to hold a table with ample surface area for the parent and an older child to work alongside one another, a carpeted area with enclosure or separation to protect babies and

young toddlers, and a carpeted area with furnishings for older children to sit comfortably while they read, color, or watch a film. A room at least 450 square feet is desirable to accommodate these different purposes. It is not uncommon for parents to bring multiple children of different stages of development with them. Hence, the toys, books, games, DVD's, and other entertainment items must be suitable for a variety of ages. Separate areas for babies/toddlers and older children are important, as well as age appropriate furniture. Older children need a couch to stretch out on or a bean bag chair in which they can read, draw, or write.

The researchers cannot emphasize enough how important it is to connect with the population to be served when the space is designed because parents know what they need more than librarians or administrators. In addition, the outreach effort followed by promotion to the intended audience will attract room users. It is also essential to be inclusive in the language used to promote the room. Users may be parents, caregivers, siblings, grandparents, aunts, or uncles of the children they will bring to the room.

Most campuses have a unit that supports and interacts frequently with adult and return-to-finish students. That unit may maintain a list through which they send frequent email messages, which can be used to recruit student parents for interviews and focus groups and to send out a survey. On some campuses, the distance learning or continuing education unit may be the contact for student parents. When it comes to how to outfit the interior of the room with flooring, wall coverings, furniture, equipment, and children's toys, games, and other stimulating activities, the student parents are the best source of valid input.

The researchers learned that a room that is sound-proof, carpeted, with a writable wall, painted in bright colors, with a window, near natural light, with a nearby restroom with changing table, and near a printer/scanner is essential. It is also desirable for the room to be a bit out of the way of heavy student traffic areas, near a cafe or vending machines, near the children's books and DVD's, and near the gaming lab or other source of activities for older children. Frequent cleaning and maintenance of the room and the toys is essential, as well as in-room availability of sanitizing wipes for quick clean ups. And do not forget the garbage can in the room. As mentioned earlier, it should be easy to schedule the room in advance as parents need to be certain the room will be available before they depart their home with the child(ren). The library needs to

develop and post clear policies about who can use the room, for how long, how frequently, and under what conditions. And there needs to be a phone number posted in the room for any problems that might arise.

Finally, it is important that there be an ongoing source of funding to update the carpet, walls, and furnishings, and to add new toys, books, games, and DVD's or exchange them. Often children will visit the room multiple times over an extended period of time, so it is important that they find an occasional new object to spark their curiosity. An endowment, a caring donor, or a local organization might be the source of this ongoing funding.

Student parents appreciate and come to rely on a family-friendly, study room in the library. With parental engagement in the planning, promotion, and ongoing improvement of the room, it will be worth the ongoing investment to help student parents succeed in achieving their academic goals.

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Appendices

Appendix A: Survey Instrument

1. Are you currently enrolled as a UNCC student?
    a. Yes
    b. No
2. What is your year of study?
    a. Freshman
    b. Sophomore
    c. Junior
    d. Senior
    e. Post-Baccalaureate
    f. Graduate Student
    g. Not currently a student
    h. Other
3. Before this survey, were you aware that the library had a Family Friendly Library Room that student parents could reserve for study and bring their children with them?
    a. Yes
    b. No
4. How did you first hear about the Family Friendly Library Room?
    a. Office of Adult Students and Evening Services (OASES)
    b. ANSWER Scholarship
    c. Atkins Library
    d. From a friend
    e. Google
    f. This survey
    g. Other

The library is preparing to design a second Family Friendly Library Room for students. This room is scheduled to open in time for the Fall 2018 semester and is being designed to accommodate a group or more than one family at a time.

5. What types of features would you like to be included in the new Family Friendly Library Room? (open response)
6. During the 2017-2018 academic year, have you used the Family Friendly Library Room?
    a. Yes
    b. No

Family Friendly Library Room Usage and Satisfaction

7. How many times have you used the Family Friendly Library Room during the Fall 2017 and Spring 2018 semesters?
    a. Once or twice
    b. Three or four times

     c. Five or six times
     d. Seven or eight times
     e. Nine or more times
     f. I have never used the Family Friendly Library Room

8. On average, how many children do you bring with you when you use the room?
     a. 0
     b. 1
     c. 2
     d. 3
     e. 4
     f. 5 or more
     g. Not Applicable

9. On average, how long do you use the room during a typical session?
     a. Less than one hour
     b. One hour
     c. Two hours
     d. Three hours
     e. Four or more hours
     f. Not Applicable

10. How likely are you to visit the Family Friendly Library Room in the future?
     a. 5 - Very likely
     b. 4 - Likely
     c. 3 - Neutral
     d. 2 - Not likely
     e. 1 - Very unlikely

11. How important is the Family Friendly Library Room to you in completing your academic program at UNC Charlotte?
     a. 5 - Very important
     b. 4 - Likely
     c. 3 - Neutral
     d. 2 - Not important
     e. 1 - Very unimportant

12. Thinking about your experience using the Family Friendly Library Room, please rate your satisfaction with the following: (5-Very Satisfied, 4-Satisfied, 3-Neutral, 2-Unsatisfied, 1-Very Unsatisfied, N/A)
     a. Availability of room (able to reserve space when needed)
     b. Reservation system
     c. Check-in system
     d. Size of room
     e. Work space
     f. Children's space
     g. Age-appropriate toys and books for children
     h. Cleanliness of room

13. What do you like about the Family Friendly Library Room? (open response)

14. What do you wish was different about the Family Friendly Library Room? (open response)

Library Services

15. Please share any suggestions for how Atkins Library can help you achieve your academic goals. (open-response)
16. Is there anything else you would like to tell us? (open-response)

Participant Demographics

17. What is your gender identity?
    a. Male
    b. Female
    c. Genderfluid/Non-Binary
    d. Transgender Male
    e. Transgender Female
    f. Prefer not to answer
18. What is your age?
    a. 17-21
    b. 22-25
    c. 26-29
    d. 30-34
    e. 35-39
    f. 40-44
    g. 45-49
    h. 50-54
    i. 55+
19. What was your original admission type?
    a. New Freshman
    b. Transfer Student
    c. Readmitted Student
    d. Graduate Student
    e. Other
20. In which College are you currently enrolled?
    a. Belk College of Business
    b. College of Arts and Architecture
    c. Cato College of Education
    d. College of Computing and Informatics
    e. College of Health and Human Services
    f. College of Liberal Arts and Sciences
    g. University College
    h. William States Lee College of Engineering
    i. Enrolled in 2 or more Colleges
    j. Not sure

21. What is your major?
22. While a student at UNC Charlotte, have you attended a library instruction class (either in the library or
    a. presented by a librarian in your class)? If so, how many classes have you attended?
    b. Yes - I have attended 2 or more library instruction classes.
    c. Yes - I have attended 1 library instruction class.
    d. No - I have not attended a library instruction class.
    e. Not sure

Gift Card Drawing & Follow-up Interview Interest

23. Would you like your name to be entered into a drawing for one of three $10 gift cards to Starbucks? If so, please enter your name and email address in the blanks at the bottom of this page. (NOTE: Names and email addresses will not be shared with other parties and will only be used by the library survey team to contact you if your name is drawn for a gift card.)
    a. Yes - I wish to have my name entered into a drawing for a gift card.
    b. No - I do not wish to have my name entered into a drawing for a gift card.

The library will be conducting follow-up interviews about students' needs for and ideas relating to the Family Friendly Library Rooms in the library. Participation will involve approximately 30 minutes of your time and will take place either in a library office or via phone. Individuals who are selected and participate in an interview will receive a $10 Starbucks gift card as a token of appreciation. Expression of interest in no way obligates you to participate in an interview. If you would like to be considered for an interview, please respond "yes" and provide your name and email address
Below.

24. Are you interested in participating in a follow-up interview about the library's Family Friendly Library Rooms?
    a. Yes - I am interested in participating in an interview.
    b. No - I do not wish to participate in an interview.
25. Your Name:
26. Your Email Address:

Appendix B: Interview Protocol

1. Tell us about your experiences using the Family Friendly Library Room.
2. On average, how often do you use the Family Friendly Library Room? When you use it, how long do you typically stay?
3. How did you initially find out about the Family Friendly Library Room?
4. What ages are your children that come to the library with you?
5. How well do the toys and books that are currently in the room meet the needs and interests of your children?
6. What do you like about the Family Friendly Library Room?
7. What do you wish was different about the Family Friendly Library Room?
8. If you could design your ideal Family Friendly Library Room, what would it be like? (arrangement, furniture, tables, toys, etc.)
9. The library is preparing to create a second Family Friendly Library Room that will be able to accommodate a larger group or more than one family. How do you think the space should be designed?
10. What other suggestions do you have for the library to better meet your needs?

Tables

Table 1. Participant Demographics

Category	Frequency	% of Total
Current Student (n=22)		
Yes	19	90.5
No	2	9.5
Year in School (n=20)		
Sophomore	2	10.0
Junior	5	25.0
Senior	6	30.0
Grad or Post Bac	6	30.0
Alumnus	1	5.0
Gender Identity (n=21)		
Male	2	9.5
Female	18	85.7
Genderfluid / Non-Binary	1	4.8
Age (n=21)		
17-21	2	9.5
22-29	8	38.1
30-39	8	38.1
40 +	3	14.3
Original Admit Type (n=22)		
New Freshman	1	4.5
Transfer	13	59.1
Readmit	3	13.6
Graduate Student	5	22.7

Used Room in AY 2018-18 (n=22)

Yes	15	68.2
No	7	31.8

Table 2. Interview Participant Profiles

Study ID	# of Children	# of Times Reserved	Year of Study
4	2	5 or 6 times	Senior
5	1*	No response	Post-Bac
6	2	Once or twice	Graduate Student
7	2	Once or twice	Junior
8	4	5 or 6 times	Senior
9	2	7 or 8 times	Sophomore
10	2	No response	Graduate Student
12	2	9 or more	Senior
13	1	Once or twice	Junior

*Adult sibling who requires care

Table 3. Family Friendly Library Room Visits Details

Variable	Reservation Data		Survey Data		Interviews	
	Frequency	% of Total	Frequency	% of Total	Frequency	% of Total
Number of Visits						
1-2	68	65.4	8	53.3	--	--
3-4	21	20.2	2	13.3	--	--
5-8	12	11.5	4	26.7	--	--
9+	3	2.9	1	6.7	--	--
Duration						
30 min	4	1.5	1	6.7	--	--
1 hr	29	10.6	0	--	--	--
2 hrs	71	25.9	8	53.3	--	--
3+ hrs	170	62.0	6	40.0	--	--
Number of Children						
0	32	11.7	--	--	--	--
1	161	58.8	6	42.9	2	22.2
2	38	13.9	6	42.9	6	66.7
3	43	15.7	1	7.1	--	--
4	--	--	1	7.1	1	11.1

Table 4. Satisfaction with Room (n=15)

Survey Item	Mean (SD)
Likelihood of Future Visits*	4.2 (1.0)
Importance of Room for Completing Education**	3.9 (1.2)
Satisfaction***	
Availability of Room	4.6 (.83)
Reservation System	4.5 (.83)
Check-In System	4.0 (1.2)
Cleanliness	3.9 (1.2)
Work Space	3.7 (1.2)
Children's Space	3.7 (1.0)
Age Appropriate Toys & Books	3.7 (1.2)
Size of Room	3.5 (1.3)

*1=Very Unlikely / 5=Very Likely

**1=Not at all important / 5=Very Important

***1=Not at all satisfied / 5=Very Satisfied

Figures

Figure 1. First Family Friendly Library Room
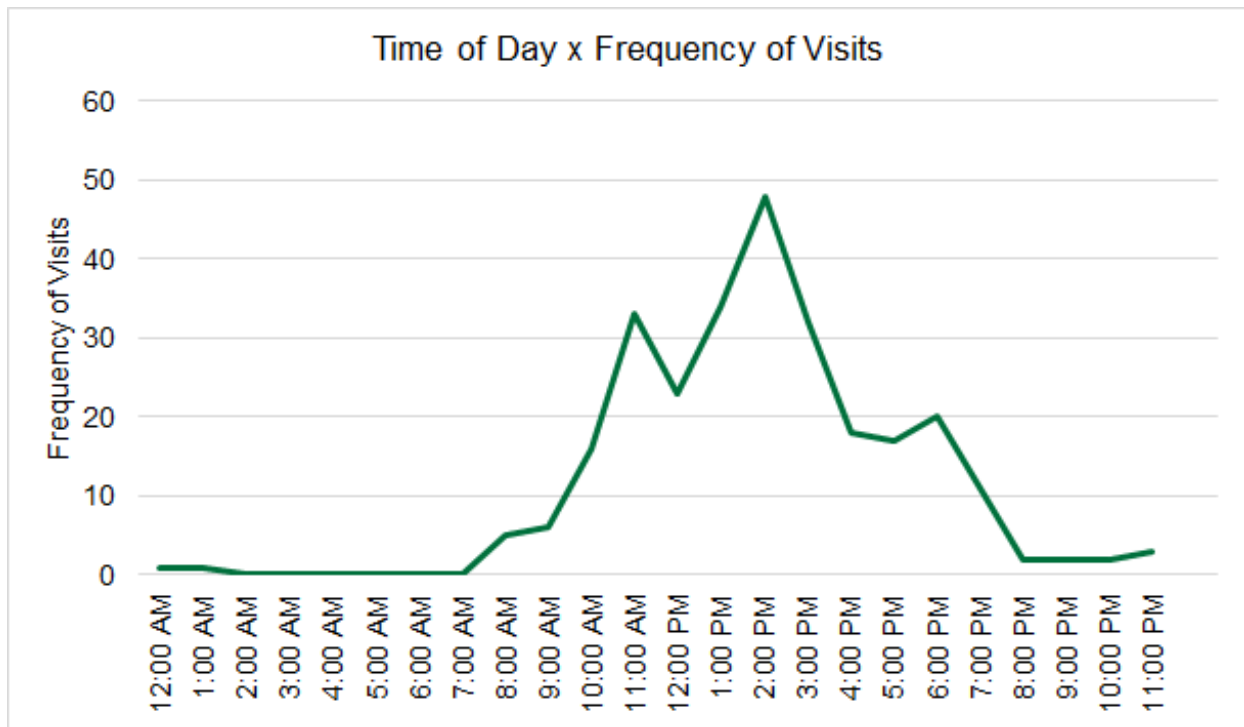
Figure 2. Frequency of Visits x Time of Day

Figure 3.Family Friendly Group Study Library Room - Work Space

Figure 4.Family Friendly Group Study Library Room - Children's Space

Figure 5. Family Friendly Group Study Library Room - Interactive SMART Board Children's Couch

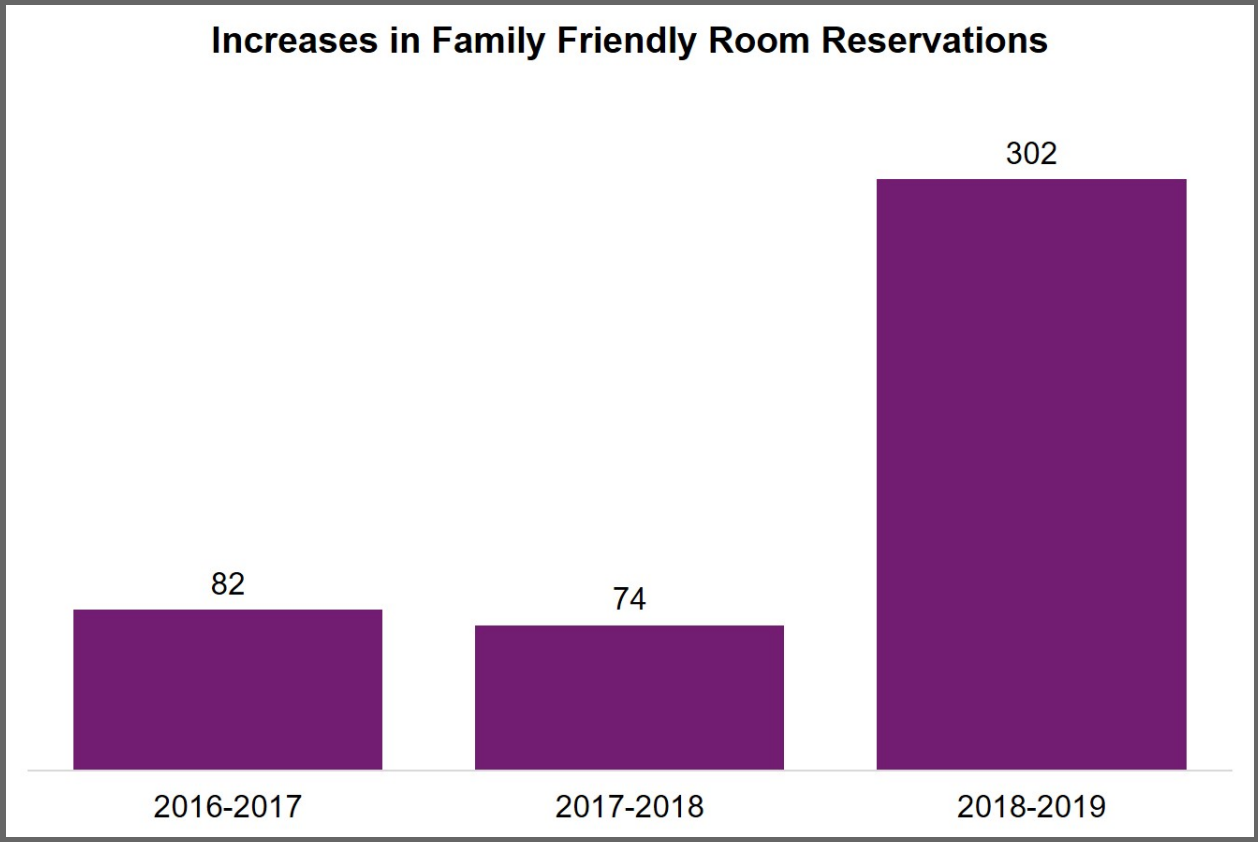Figure 6: Family Friendly Library Room Reservations

Increases in Family Friendly Room Reservations

82	74	302
2016-2017	2017-2018	2018-2019

Figure 6: Family Friendly Library Room Reservations x Room Type

Both Group Study and Single Family Friendly Rooms are Popular (2018-2019)
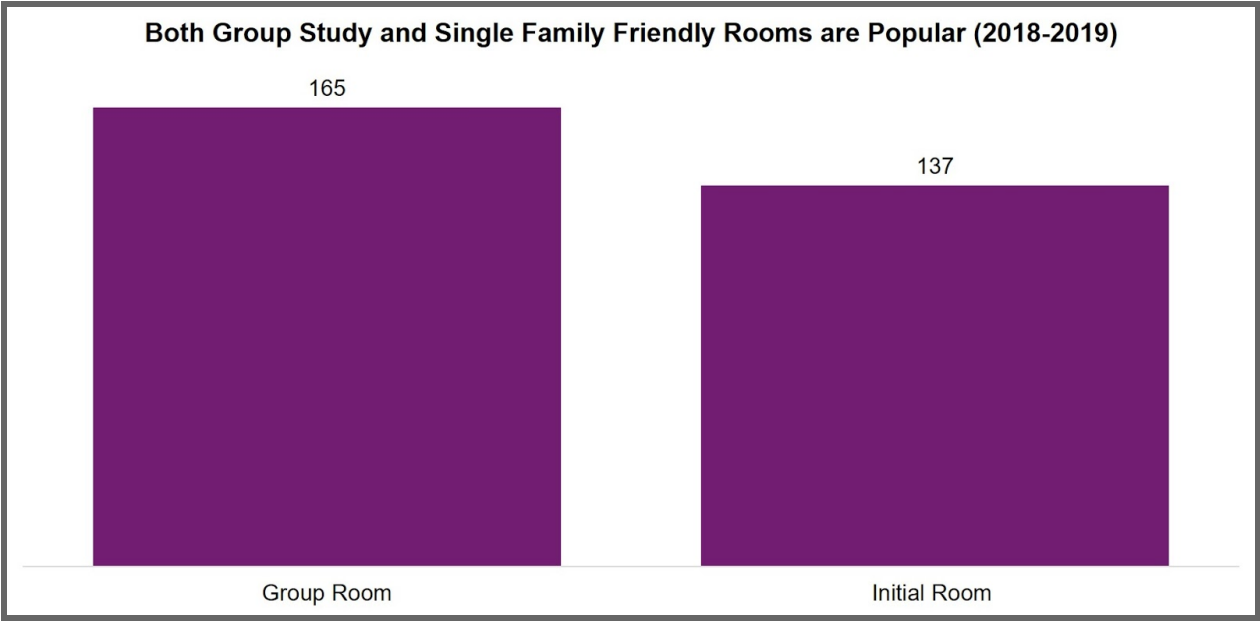
Group Room: 165
Initial Room: 137

Figure Captions

Figure 1. First Family Friendly Library Room

Figure 2: Frequency of Visits x Time of Day

Figure 3.Family Friendly Group Study Library Room - Work Space

Figure 4.Family Friendly Group Study Library Room - Children's Space

Figure 5: Family Friendly Library Room Reservations

Figure 6: Family Friendly Library Room Reservations x Room Type