



An Exploration of Students' Recollections After an Asynchronous, On-site Academic Library Tour

Adrienne Warner

abstract: Once an integral component to library instruction programs, tours of academic library spaces are less common despite students' continued need for study spaces with various qualities. This study asks, "What do students remember after taking an asynchronous, on-site academic library tour?" Qualitative analysis finds that, while students value library study spaces, they also report predominantly positive feelings about the library and the tour itself. This research suggests that technical affordances can mitigate some historical drawbacks of tours while offering students a valuable library instruction experience.

Introduction

Tours of academic libraries have fallen in and out of fashion among practitioners. Once a central component of library instruction programs, they may be considered less relevant and even anachronistic when we think of information literacy today because of the emphasis on the digital information landscape. However, this genre of library orientation deserves reconsideration, especially as librarians reimagine spaces to better suit students' academic and social needs. As students discover library spaces on their campuses, perhaps for the first time, providing explanations of available services and collections enable students to choose their level of engagement. Unlike tours of the past, many of which were conducted in person to many students at a time, technology affords new benefits. Advancements in

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cell phones, high-traffic streaming platforms, and reliable connectivity mean that students can access tours with their phones and earbuds. When designed with outcomes and audience in mind, and scaled to avoid practitioner burnout, tours of library spaces offer benefits to students and library instruction programs.

From describing the path of celestial bodies to stints in the military, people have used the word “tour” to describe finite journeys. In this study, we are guided by the *Oxford English Dictionary* definition: “An excursion or journey including the visiting of a number of places in a circuit or sequence; often qualified, as tour cycling, tour walking, wedding tour; esp. a circuitous journey embracing the principal places of the country or region mentioned.”¹ An academic library tour embraces the principal places of the academic library, and provides a systematic introduction of important places. In contrast to scavenger hunts and other gamified orientations, which incorporate some amount of randomization, a library tour frames library spaces in a sequential relationship to each other.

Academic librarians have sequenced tours of library spaces in myriad creative iterations. They can be self-guided or conducted, in situ or remote, live or recorded, and aimed at individuals or groups. They can be integrated into a course as a stand-alone assignment, or as one component of a lesson plan. They can have a narrow topical focus or provide a broad sampling of spaces and services. Variations include a three-minute video linked from a homepage, a LibGuide with tabs for each floor, or a paper map with the route marked and written explanations at each stop. Some still offer librarian-led tours with the option to choose which language the tour will employ. Whatever their modality, all tours offer the curious reason for exploring library spaces in a systematic, guided fashion.

At the University of New Mexico, a large research university, instructors often request library tours for their first-year students. As often as possible librarians have provided tours, however they were inconsistently received by students and repetitive for staff. Despite incorporating creative twists on the old standard, in-person tours seemed like a wasted opportunity. Before scrapping tours altogether, one librarian created an asynchronous, on-site tour, akin to a museum audio tour, that went live in 2022. Preliminary assessment suggested this option was a positive experience for both students and librarians, but formal evaluation had yet to be undertaken. This treatment seeks to answer the research question, “What do students remember after taking an on-site, asynchronous tour?”

Literature Review

On-site Academic Library Tours

Academic librarians have had a tumultuous relationship with tours. Criticisms based in pedagogy, facility logistics, and administration go back decades. Pedagogically, they have been deemed as passive learning experiences and ineffective at teaching library use.² Mandatory tours can be inadequately timed with information needs, leaving both students and librarians wondering about their utility.³ In addition to pedagogical concerns, there are logistical ones, too. Tours can be disruptive to other library users, the



librarian can be inaudible to some in bigger tour groups, and objects may be difficult to view for some students.⁴ Further, librarians report that administering in-person tours to groups can lead to librarian dissatisfaction due to repetition; they are unsustainable or offer too little return on investment, since these programs require lots of staff time; and tours can be either sparsely attended or may threaten to overrun the library.⁵

Before the internet, when library collections were analog and entirely housed in physical buildings, tours were a standard part of library instruction programs. Librarians wanted to teach students the locations of the card catalog or terminal, the ready reference collection, and other important entry points for searching for information because they did not have the staffing capability to give every individual a personal orientation. Often seen as the first component of a library instruction program, tours laid the foundation for subsequent bibliographic skills and advanced search methods.⁶ Finding information was synonymous with library spaces.⁷ As collections moved online, the need for place-based resources diminished. Still, some librarians argued that the warm welcome tours provided was just as important as their instruction components.⁸

For almost as long as tours have been offered, librarians have been working to remedy the drawbacks inherent in the traditional, guided walking tour. Early on, paper guides proved to be useful, before recording technology progressed to allow cassette tapes to be a viable option.⁹ Digital technology replaced the analog tapes with mp3 players and iPods featuring a recorded tour guide, a popular innovation in the aughts.¹⁰ Technology progressed again and electronic tablets emerged, allowing tour-goers to carry one throughout the tour and upload pictures of the library to a common website.¹¹ Tablets could also be used as informational kiosk screens at set points in library buildings.¹²

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Now, digital video production tools facilitate sophisticated online tours that introduce users to library spaces even from afar. While there are many examples of tours users can take online, those are outside the scope of this article.¹³ Michael Whitchurch, one of the few librarians who have contributed to the more recent literature on academic library tours, traces the change in delivery mode at his own library, describing evolutionary stages of analog, digital, and ultimately mobile.¹⁴ He is also the only other researcher known to have provided an audio tour of library spaces using QR codes. Because this technology was not widely used, and because many smartphones at the time did not have WiFi capability, Whitchurch initially concluded that his offering was unsuccessful, but he discussed tweaks that made the tour more successful in iPod and iPad iterations.¹⁵ While his offerings are the closest in technology to the current report, there is no documentation of students accessing an audio tour via their own smartphones, and no known study examining students' experiences of academic library audio tours.

Students' Need For and Perceptions of Academic Library Spaces

Librarians who have adapted their tours over time have done so because there is a continued need for students to be oriented to library spaces. Students require space to



study and work on assignments. Evidence indicates that many students primarily use the library for studying, surpassing the use of library collections and resources, and library staff help.¹⁶ More broadly, students value individual study spaces where they can also feel a part of the community.¹⁷ Further, wayfinding efforts have been shown to pay off, with the gap between novice and expert navigation skills separated by only a few experiences in the library, suggesting that a preliminary introduction yields significant reward.¹⁸

Along with students' continuing need for study space, students' experiences of academic library spaces have been documented in library and information science literature. For many years, Andrew M. Cox has researched the connection between library spaces and sensory experiences. Cox and others note that students' preferences for which library space to inhabit are complex, and document as highly influential variations in levels of preferred sensory stimulation, including noise, ability to see and be seen, and proximity to others.¹⁹ Beyond traditional understanding of the five senses, researchers often include proprioception as a facet of students' experiences in libraries and learning environments. One researcher explains the purpose of proprioceptive sense as "allow[ing] us to detect the movement and position of our own body.... It makes us aware of how we are integrated within the space of our environment, how we are positioned in relation to other people, and how our bodies signal our presence to others as well as ourselves."²⁰ Although assessments of library tours have not been used to document students' sensory responses to spaces, or to discern students' general responses to library spaces, the following account explores students' responses to library spaces after an on-site asynchronous tour.

Methods

Participants and Setting

At the University of New Mexico University Libraries (UL), recent curriculum developments reignited momentum to offer tours to first-year students. Blending traditional orientation activities with beginning college research skills, students in the college of arts and science's first-year seminar meet faculty, academic advisors, and learn about support networks for their academic and social needs. In the autumn of 2022, the coordinator of this seminar and the first-year experience librarian agreed to launch an asynchronous, self-guided tour of the main library on campus as part of the curriculum. Twelve sections of this course were required to complete the tour that fall.

The Zimmerman library on the main campus, located in the urban heart of Albuquerque, New Mexico, is a large, historical building, consisting of an area over 100,000 square feet. The largest in the state, it also houses the most volumes, and the combined print and digital collection boasts over 3 million items.²¹ Completed in 1938 with partial funding from the Works Projects Administration (WPA), the Pueblo Revival architecture style reflects some of the culture of the southwestern United States. John Gaw Meem designed the original structure, which he considered the jewel of all his projects.²²

The library underwent two major additions in 1966 and 1973, shifting the primary service desk location from the historic west wing to a new service hub and expanding

seating and collections space to the basement, second, and third floors. In 2014 a remodeling effort opened the Learning Commons, a modern, colorfully appointed, mixed use space which was primarily populated by open study space, student computer stations, printing and scanning kiosks, and the help and reference desks.²³ These additions and remodel also allowed the historic grand hall in the west wing to be repurposed into stately, silent study spaces (see Figure 1). The tour provides a glimpse into the history of the building while also discussing many of the modern conveniences and services.

Materials

The library tour asks students to visit the Zimmerman library concourse, pick up a tour map, and use their phones to scan a QR code that opens a Springshare LibWizard tutorial. This tutorial provides a frame for Youtube video narrations and transcripts for each tour stop, as well as an end-of-tour survey. Consisting of five stops on four floors, the circuit also includes side trips, which encourage students to explore around the particular stop. At the end of the fifth stop, students take the exit survey using their smartphones. They receive a certificate of completion which can be uploaded for assignment credit.

Procedure and Data Analysis

The library tour exit survey includes ten questions, however the analysis presented here focuses only on the responses to the required question: "Thinking back on the tour, what sticks out in your memory?" (See Appendix A for the full survey.) The data for this analysis was collected from October 24, 2022, through October 14, 2023, a range that represents nearly the first full year the tour was live. Once the data was collected, the researcher needed to do some preliminary clean-up.

First, the researcher exported the survey results from LibWizard to an Excel spreadsheet. The Excel filter function was used to highlight duplicate email addresses. When duplicate entries from the same respondent appeared within five seconds of each other, the researcher deleted the later entry. She deleted 33 entries based on these criteria. If entries from the same email address occurred at other intervals, the researcher did not delete any entries because it seemed less likely to be a submission error, and the same student could have taken the tour multiple times. After removing duplicates, the email address and name columns were deleted in to de-identify the remaining data.

Second, the researcher analyzed the content of students' responses to the survey question through a two-step process. The first round of inductive coding included several iterations of reading through the responses, noting the features of spaces students commented on and, if possible, which tour stop the student was at when observing something later recollected. After several rounds of inductive coding, all but fifteen student responses were clumped into at least one group with similar attributes. Reasons the researcher could not code these fifteen responses were incomplete or incoherent thoughts, such as, "What really stuck out to me during the tour is that," or vague comments such as, "Where places are located." After coding, the researcher reviewed the codes to determine relationships between them, allowing broad themes to emerge. To manage this iterative process, the researcher used the qualitative software Taguette.²⁴ The researcher processed the data after receiving clearance from the institutional review board. The full codebook appears as Appendix B.



Figure 1. The West Wing of the Zimmerman Library, where students enjoy quiet study space.



Limitations

There are several limiting factors at play in this study. First, because the survey asks students to reflect on their experiences with the tour and library, the data is self-reported. While expected for qualitative research, self-reported data cannot be verified by an external party. Additionally, because this tour was embedded in many sections of a first-year seminar, and survey responses were not anonymous, some students may have perceived that their instructors would review their responses and favor those that looked positively on the library or tour, though in fact instructors were not given copies of responses. Further, the survey responses are students' immediate recollections of their experiences, and further research is warranted to understand the longer-term recollections and impacts of the library tour.

Two technological features should be accounted for as well. In the LibWizard system, which is the platform used to house the end-of-tour survey, there is a delay between the time the respondent clicks the submit button and a visual indication that the survey submission is being processed. Although only a second or two in duration, students may have submitted their survey twice, not knowing the first submission went through. Duplicated entries were deleted as mentioned. The other feature that affected responses was autocorrect. Since students typed survey responses on their smartphones, some words were likely changed due to autocorrect, which was a small but notable feature of survey responses. In these cases, the researcher used contextual cues to make educated guesses at intent. For example, the "torturing rooms on the third floor," was inferred to mean "tutoring rooms on the third floor."

Finally, as this is a qualitative endeavor, the researcher's interpretations of the data cannot be removed and instead must be acknowledged as a feature of both the process and results. While she has made every effort to allow codes and themes to emerge organically, her position as both researcher and tour creator inform these discoveries.

Results

The researcher iteratively developed and applied the codes to the dataset of 454 unique responses. Once she reached saturation of codes, the researcher reviewed them for connections, or themes. Table 1 lists the codes used to reflect what students found memorable after the tour, from the most frequently used codes at the top and the least frequently used at the bottom. Each code is accompanied by the number of times it was applied and the percentage of responses that used the code. Table 2 shows the number of times the code was used, identifying the most- and least-reported aspects of the tour. Because each response could be coded with more than one tag, the percentages add up to more than 100 percent.



Table 1.

Results of code analysis, quantified in number and percentage

Code	Number of times code used	% of responses with this code
Space to study in	138	28%
Enjoyable feeling	117	24%
Stop 2	106	22%
Stop 5	68	14%
Norms / Rules	67	14%
Stop 4	63	13%
Stop 1	54	11%
Proprioception	52	11%
Books	49	10%
Amount of spaces	48	10%
Quiet	44	9%
Newly oriented	40	8%
Stop 3	38	8%
Future	26	5%
Tour itself	26	5%
Multiple stops	17	4%
Whole layout	15	3%
Unenjoyable feeling	8	2%
Art / architecture	3	1%
Nothing stood out	2	.4%
Smell	2	.4%

The researcher analyzed the codes and developed themes to group codes with similarities. The emergent themes regard differentiated spaces, composite spaces, internal experience, library culture, applicability, and reactions to the tour itself.

Applicability

The theme of applicability emerged with the codes *space to study in* and *future*. Both of these codes reflect respondents' observations of the utility of library spaces to serve their academic goals. *Space to study in* was the most-applied code and categorized a quarter of responses. Responses include reference to individual and group study spaces. In one response, a student noted, "What sticks out to me on this tour is how much room [t]here is for studying and how there is so many private study halls." Others call attention to

Table 2.
List of themes by code

Theme	Codes Used
Applicability	Space to study in, future
Differentiated spaces	Stop 1, Stop 2, Stop 3, Stop 4, Stop 5, multiple stops
Internal experience	Enjoyable feelings, unenjoyable feelings, quiet, proprioception
Library culture	Norms/rules, books
Tour itself	Newly oriented, tour itself, nothing sticks out

features in the space that facilitate studying, like natural light, comfortable seating, and the presence of being around others studying. Several commented on specialized rooms and their associated time limits, like the two-week cubbies and the half-hour increments for reserving group study rooms. One student noted their vision for using the space: “The first floor wooden study area is a good space to get assignments done and study.”

Along with *space to study in*, the *future* code highlights the functional nature of the library spaces. This code applied to 5 percent of responses. When imagining themselves coming back to the library to accomplish a task at a later date, students intended to use the west wing, tutoring services, basement, Indigenous study center, and reservable cubbies. One student illustrated a map of their future library use: “The 2-week study rooms really stick out to me, and are definitely something I’d like to check out in the future.” Several students reported imagining themselves coming back to the library to accomplish something at a later date.

Differentiated Spaces

Students often recollected one or more unique spaces that could be traced back to particular stops on the tour. The codes grouped in this theme are *Stop 1*, *Stop 2*, *Stop 3*, *Stop 4*, *Stop 5*, and *stop multiple*. Collectively, students commented on study-appropriate areas at every stop on the tour. Within this, students mentioned unique spaces at Stop 2 in 22 percent of the responses. This stop took students through the historic wing of the library, home to the archives, grand hall, and the only silent study spaces in the library. The recorded tour narrative included history factoids and drew attention to the hand carved ceiling beams and punched tin light fixtures. This space resonated with students. They used words like remarkable and beautiful, and noted components of the space, such as chandeliers, wooden beams, and the library’s original card catalog. One student said, “The big fancy library next to the Anderson room was absolutely stunning! I would love to study there eventually and experience [its] environment.”

The rest of the stops were located in the newer part of the library, which features fewer handcrafted details. Students generally did not use words like “beautiful,” or



"stunning" to describe spaces in this part of the library; however, they did mention significant affordances offered only in those particular spaces. Students recollected Stop 5, the final stop on the tour situated in the basement, 68 times. This tour stop led students through a hallway with group study rooms, and through compact shelving to give students a sense of the size of the space. One student remarked, "The amount of periodicals and journals in large book form in the basement was astounding, I have never seen anything like it in a library before." The recorded tour narrative for Stop 5 also discussed the seating and study options and concluded the tour with closing remarks, highlighting the library website for frequently asked questions, and offering an invitation for students to find their own uses of the library.

After tour Stops 2 and 5, the next most memorable stop students identified was Stop 4, which was mentioned in 13 percent of responses. Students noted the views from this third-floor tour stop, as well as the small collection of reservable two-week study rooms. One student said, "The 2-week study rooms really stick out to me, and are definitely something I'd like to check out in the future." For many students, the highlight of this stop was the peer tutoring support services provided by the university's center for teaching and learning. The tour narration includes a personal story from a librarian about accessing tutoring after failing a test as an undergraduate. One student commented on this story as memorable: "What really sticks to my memory is when they talked about the 3rd floor and that really smart people are the ones that seek tutoring because they are trying to have a bigger understanding on assignments. You can seek... help there on the third floor."

Students identified space features of Stop 1 in 11 percent of responses to the question, "Thinking back on the tour, what sticks out in your memory?" During this stop, students are introduced to the library learning commons, Adobe Creative Commons, Starbucks coffee shop, and the library help desk, and are provided context via narration around student employment opportunities, eating in the library, varying noise levels throughout the building, and how the tour will work. Starbucks weighed heavily in responses, with students commenting on enjoying a coffee drink while studying. One mentioned how different this set up was from high school: "The Starbucks it's cool to see an establishment inside a library it's different from high school." Students remembered library services unique to this stop as well, especially referencing where they can check out books and laptops. Specialty circulation items were also mentioned. One person noted, "The Adobe Creative Campus was very interesting, I didn't know you could checkout electronics."

Students identified aspects of Stop 3 the least often, appearing in just 8 percent of the responses. Features mentioned about this stop include the Indigenous Nations Library Program, a side trip through the bookshelves housing history, political science, and education collections, and an invitation to use the Hertzstein Latin American Reading Room. Students recalled all of those features in their comments, noting the applicability of the collections to majors and the comfortable feel of the reading room. One student connected the library features of this stop to their own culture: "One thing that stuck out to me was the second floor with the Indigenous library and the cookbooks. I thought this was really interesting because it is unique to UNM and a way to connect us to our cultural heritage."

The final study code included in the theme of differentiated spaces is *multiple stops*. Responses coded with this tag identify multiple tour stops as memorable to one respondent. While this code applied to only 4 percent of responses, it is notable that 17 people found so much memorable about the spaces that they wanted to write more than the minimum required for the survey field. Most who mentioned multiple locations referred to some combination of five spaces or services, including the west wing, tutoring on the third floor, Starbucks, the basement, locked cubby study rooms on the third floor, and the horseshoe-shaped reading room on the second floor. One student remembered features from four of the five tour stops: "What sticks out in my memory are the largeness of the shelves in floors 2 and 3 and the basement. The West Wing with the pillars and the computer classrooms in the basement also stick out to me."

Overall, four of the five stops (1, 2, 4, and 5) appeared in the top 8 coding categories. This suggests that respondents value a variety of unique affordances in library spaces.

Internal Experience

The theme of *internal experience* emerged as an indicator of self-observation. This theme may be considered in contrast to *differentiated spaces*, which includes reports of external phenomena. Instead, *internal experience* includes a judgment or categorization of emotions and sensory perceptions as opposed to a report of a geographic space. Students may have responded to the survey question with information that could be coded in both themes, so these do not describe different students, but rather different qualities of memories. The codes *enjoyable feelings*, *unenjoyable feelings*, *quiet*, *proprioception*, and *smell* are included in *internal experience*.

The code *enjoyable feelings* was the second most-reported in the study, appearing in 24 percent of respondents' answers, after the code *space to study in*. Responses with words like interesting, cool, nice, enjoyable, happy, love, and good fall into the category of enjoyable feelings. Features of the historic west wing brought out enjoyable feelings in students, reflected in the statements, "The cool wooden beams and chandelier things;" and "I keep thinking about the Anderson library with all the beautiful seats." Other spaces evoking enjoyable feelings include the Indigenous study area, which a student connected to their own culture, and the basement filled with books. Other students' enjoyable feelings pointed to a more holistic enjoyment of the space. One student said, "I just really love the whole layout of the library and the little nooks that are perfect and quiet for studying and [it's] just overall a really calm and focused space." Some students stated their enjoyable feeling but did not provide reasons for their feelings. For example, one student said, "Seeing the student tutoring on [its] own floor along with the academic fiction was very nice." However, most students did include an explanation for their enjoyable feelings. One person said, "So many bookshelves!! It makes my bookworm heart very happy to see all these books I can just read whenever I want!"

The researcher coded feelings that did not fall in the enjoyable category as *unenjoyable feelings*. Associated words included sad, intimidating, anxious, and afraid. These occurred in only 2 percent of responses. One student elaborated, "The books. There are so many of them sadly there is no time to read them and considering I suck at reading I'll bet there will be only a few that I take from the library in all of my time here which is



kind of sad." Further examination of unenjoyable feelings reveals that three of the eight comments coded as unenjoyable may point to a resolution of those feelings. For example, one student comments, "The basement stuck out to me because I was always scared to go down because [I] didn't know if it was open for student[s] or just the professors." This suggests that the tour may have helped dispel previous negative emotions, rather than instilling or reaffirming these feelings.

One similarity across responses coded with enjoyable feelings and unenjoyable feelings is that both kinds of responses tended to be longer than most other responses coded in this project. While an analysis of word count by code is outside the scope of this project, students who shared feelings of any kind often took two or three sentences to express themselves. In contrast, many responses pertaining to specific stops, such as *Stop 1* and *Stop 2*, often consisted of only a short phrase and rarely more than a sentence. This suggests further study of emotions in library spaces may be a fruitful line of inquiry.

Along with emotions, students' sensory perceptions surfaced in survey responses. The most frequently reported sensory mode was hearing. In particular, students men-

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tioned quietude and silence. One recollected, "[T]he areas that are completely silent, I am impressed that even in a library, you have to have areas of complete silence for students who require a little more concentration." Respondents mentioned quiet or silence 44 times (9 percent of responses). While many mentioned a bodily experience of lack of sound, others mentioned noise, which indicated to the researcher a cognitive un-

derstanding of acceptable noise levels, rather than a sensory experience. The researcher coded comments about noise as belonging to the *norms/rules* code.

Proprioceptive observations indicating a sense of how respondents' bodies felt in relation to the space, appeared in 11 percent of responses, which were observations about feeling the size of the space in relation to themselves, the level of seclusion from other people as afforded by the space, or a difference in atmosphere. Some students did not give a reason for why they experienced a space a certain way, including this observation, "The basement because basement[s] of libraries always have that weird feeling." Others were more granular in their interior scan. These students linked a proprioceptive response to a specific quality found in the space. One said, "I just really love the whole layout of the library and the little nooks that are perfect and quiet for studying when needed and [it's] just overall a really calm and focused space."

Library Culture

The next theme that emerged was *library culture*, which comprises the codes of *norms/rules* and *books*. This theme emerged when students commented on features particular to and governing the function of a library. Pertaining to the first code in this theme, *rules/norms*, students recollected library use guidelines that were explicitly stated by the tour narrator, such as the food and drink policy, or those they picked up during the course of

the tour. Respondents mentioned library guidelines and behavior norms in 14 percent of responses. Students' awareness of acceptable noise levels featured prominently. One stated, "...there are different areas that allow certain levels of noise so that socializing can occur, but so can serious studying!" Students did not mention noise level enforcement techniques, possibly because the tour narrator did not go into detail about this, except to note that the library is a "no-shushing" space. Several students reiterated this norm. One student said, "I like how the library is a shush free zone so you don't have to feel nervous about being quiet when coming in." Some students also commented on the allowance of food and drink in the library. One noted, "[t]hat you can eat in the library because most library don't allow that." Students' comments on the permissibility of noise and food and drink in the library may reflect a narrative counter to traditional portrayals of the shushing librarian and acetic and silent library spaces.

The second code within the *library culture* theme is *books*, which includes related words, like bookshelves and shelving, as well as types of books, like periodicals and fiction. Students recollected memories coded as *books* 10% of the time. Several students commented on the number of books overall or the size of the books, especially in the basement. Still others commented on the types of books, like those on the cookbook display, and "that the library has other books that are not just for research." A few students noted the organization of collections specific to libraries. One noted, "the ... basement and how it is organized periodically which is great to find law books from closer to this year."

Tour Itself

The final theme to emerge in this analysis was that of the *tour itself*, in which students make an explicit reference to an aspect of the tour, as informed by the code of the same name, as well as by the data tagged with the code *newly oriented*. Responses coded with *tour itself* remarked on an aspect of the tour, including space descriptions, the voice of the narrator, video components, navigation and wayfinding, and the helpfulness of the tour. One student remembered, "[T]he stories from other students i loved that." This type of remark occurred in 5 percent of the responses.

Apart from commenting on aspects of the tour, some respondents noted a change in understanding or perception as a result of taking the tour. These were tagged with the code *newly oriented*, which occurred in 8 percent of responses. Most students expressed a new understanding of spaces that cannot be seen from the main entrance, such as the west wing and basement. Both of these areas in the library, especially the west wing, are somewhat difficult to locate, are not well marked. One said, "I hadn't known the west wing existed until now," and another noted, "There is a basement in the library." Students also noted how their conception of the size of the library had changed, consistently noting the library is bigger and offered more than previously known. A student remarked, "*The actual size of the library; it [is] much bigger than I thought it was.*"

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As a counterpart to the findings from the code *tour itself* and *newly oriented*, two respondents reported that nothing stood out as memorable after taking the tour. This suggests that the library or tour were unmemorable or that the information about library services and spaces covered in the tour was already known to these students.

Discussion

This investigation attempts to answer the research question, "What do students remember after taking an on-site, asynchronous library tour?" The findings of a qualitative analysis of 454 respondents' recollections suggest that students have interest in the variety of study areas as applicable to meeting their academic goals, are reflective about emotional and sensory reactions, and are responsive to learning about library culture via the tour. These findings have local implications, such that the investment in the tour has utility as a part of the library instruction program, and that students' experiences of the library after taking the tour are multidimensional.

The resultant themes found through this research resonate with the wider academic library literature in some predictable and surprising ways. Researchers routinely confirm students' interest in library study spaces and their varying affordances, but the extent of positive feelings found in the current study may counter some aspects of the literature regarding library anxiety and the usefulness of tours.

Selection of Study Spaces

This study finds that students recollect varying space affordances (Stops 1–5) and that some types of spaces make more lasting impacts than others. Students readily recalled the library's historic west wing, which includes grand, silent study spaces. Although mentions of the historic wing outpace all other stops, students recollected unique features of spaces at all five stops, suggesting that space affordances are highly observed and valuations vary. While a detailed understanding of why students are interested in some places more than others is outside the scope of the current study, it is worth noting that students do choose based on their own calculations. Researchers analyzing student space use note that students choose different spaces in the library depending on their needs, and preferences.²⁵ Further, it follows that students with a broader awareness of space offerings are more precisely able to match their preference and need, suggesting more discerning use.

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Scott Bennett articulates this as "active management of the study environment to control social distraction," and good study space allows students to control for both the academic and social aspects of a space.²⁶ In the current study, respondents acknowledge both aspects, with the academic attributes denoted in part by the codes *space to study in* and *future use*. Looking more closely, however, tour



participants also exhibit an understanding of their ability to manage the social aspects that accompany a given space, such as noise levels and group study areas. Students can also control for the social and academic aspects that come with other students using the space. Researchers report the positive vicarious experience that students have when they see other people productively learning in the library and engaged in serious mental application.²⁷ In fact, Cox and his colleagues found that students deliberately choose areas that cue concentration.²⁸ As library tour participants sample more options, they may be able to control more precisely the academic and social elements they desire in spaces.

Embodied and Affective Experiences of Library Spaces

In addition to the academic and social elements of spaces, students' preferences for various types of spaces are tied to their physical experience of those spaces. Students' embodied experiences of the layout and feel of different rooms is echoed in other research. Some researchers use the term proprioception and others refer to students' experience of the atmosphere of the library.²⁹ In an ethnographic study of people's experiences of libraries in their lives, undergraduates note, more often than any other studied age group, the atmosphere of the library as memorable.³⁰ More granularly, researchers have documented students' experiences of the "ambiance" of different rooms in a library.³¹

As previously discussed, respondents in the current study most often mentioned the applicability of the library spaces for studying. As tour-goers moved through the physical geography of the library, they evaluated not only the degree of fit of the library to support their academic needs, but their bodily needs for qualities like privacy and comfort, among others. While the researcher may separate perception, emotion, and rationality here, scholars who study embodied cognition point out that this differentiation is not only superficial, but unlikely.³² In his review of the literature surrounding the treatment of the body in various academic fields, Cox positions embodied cognition among "a number of interrelated theories that challenge the notion that cognition happens purely in the brain."³³ In the same way that a reader's experience is different whether they read in a coffee shop, library, or subway car, students in this investigation seem to understand that studying in the library presents a different kind of opportunity.³⁴ Keeping the theory of embodied cognition in mind, one may posit that an in-person tour of the library is not necessarily a mental calculation of utility, but a bodily mapping of important places in the library, a conscious or unconscious sensate gathering of information about potential for fit in one's surroundings.

Given the number of positive feelings indicated by respondents, at least a quarter of them are likely to experience a sense of fit in the library. However, unenjoyable feelings suggest that some experience a disconnect between themselves and the library. These experiences may align with the concept of library anxiety, a theory suggesting that students become anxious when using the library to do research.³⁵ Of students that indicated emotion in the present study, they most often reported enjoyable feelings. While more research is needed to thoroughly explore students' affective experiences of library space in the current context beyond the binary of enjoyable and unenjoyable, the degree of contradiction of current results with the concept of library anxiety is notable. There may be an important gap between a student's initial, enjoyable reaction to library



spaces and the negative feelings when the library is associated with research for a class. Although what is presented here is an exploratory study, results counter a prevailing narrative of negative feelings associated with academic libraries when viewed through the lens of library anxiety.

Library Culture

Students in this study responded to tour content explaining how the library works. Several report as memorable the rules outlined at Stop 1, in which the narrator says that food and drink are allowed in all areas unless signs say otherwise, that noise levels can vary and different noise zones are designated on the tour map, and that the library is a “no shushing zone” because librarians will not shush students. It is likely that most students want to follow the rules and, for many, knowing the rules of engagement for social situations allows them to relax. In addition to dispelling stereotypes like the shushing librarian, these rules signal to students the social covenants governing the library space. Joseph Raz, in his philosophical treatise discussing the function of rules to norm behavior, says norms are “reasons for action.”³⁶ Further, “permissive norms” are those that confer permission to the recipient action they may choose to engage with.³⁷ Rather

It is likely that most students want to follow the rules and, for many, knowing the rules of engagement for social situations allows them to relax.

than telling students what they should and should not do in the library, the tour lays out permissive norms, such as suggesting to students they may engage in silent study in the west wing or in louder group sessions in the learning commons. These permissions confer on students the power of choice. They allow students to evaluate their options in order to select an action. Through the tour's

narrator, students receive explicit permissions. For those unfamiliar with libraries or academic libraries in particular, these permissions may be an issue of equity. Bryant and her colleagues note that students pick up on behavior norms of others in the immediate library vicinity, including those that are tacit, but receiving explicit permission from the narrator, who is in a position of authority as a librarian, may shorten the learning curve. Researchers find that explicit communication of the culture of an academic library via library tours is a matter of inclusion.³⁸

Tours as Important Instruction Offerings

Students' varied recollections after taking this tour suggest they found aspects of the library interesting. While the percentage reporting a change in conceptualization or orientation to library spaces is relatively low in relation to other themes discussed here, it may be a more genuine assessment of the efficacy of a tour than a direct question about whether students found the tour helpful. Further, some students commented directly on aspects of the tour that they liked, such as the videos, suggesting that some found it an enjoyable, and useful, exercise. Locally, this has become an important offering in the library instruction program, an outcome also experienced elsewhere.³⁹



Moseley makes the case that traditional walking tours are preferable to those mediated by technology, and some libraries put considerable effort and value into providing students with live-guided tours of the space, but it is unlikely academic libraries will go back to providing these to the degree they have historically.⁴⁰ While this tour, like every instructional offering, is subject to technological mis-firings, the connectivity affordances currently available may offset potential drawbacks. The current model improves upon the traditional, live-guided offering through access and accessibility. Because students can access the tour any time the library building is open, students who are assigned the tour as homework are able to fit the tour around their schedule. Some sections of the first-year seminar course went on the tour as a class, as in a more traditional tour offering, but personal devices allowed individual control of volume and playback no matter the number of compatriots. The integration of closed captioning on the videos and links to full transcripts allowed users a more accessible library encounter.

Conclusion

Going into this project, the researcher suspected that there would be some indication of interest in the library tour as reported by students. The resultant positive feelings, complexity of proprioceptive engagement, and allure of library spaces far outpaced the hypothesis. The researcher was additionally surprised by the lack of reflection of these positive experiences in the current library literature. Indeed, the prevailing narrative seems to be that tours are outdated or place too much burden on library workers. However, abandoning guided introductions to library spaces deprives students of choice and agency. Instead, librarians can go beyond recitations of rules and collections to invite tour-goers to consider themselves as part of the scholarly community to which they belong.

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Adrienne Warner is an Undergraduate Engagement Librarian at the University of New Mexico Libraries, email: adriennew@unm.edu, ORCID: 0000-0001-8066-6045



Appendix A

Tour Exit Survey

This feedback survey will take about 3 minutes.

1. Would you like to take a similar tour of the UNM Centennial Science and Engineering Library? (multiple choice: yes / no)
2. Would you like to take a similar tour of the UNM Fine Arts and Design Library? (multiple choice: yes / no)
3. Do you feel more comfortable using this library after taking the tour? (multiple choice: yes / no / about the same)
4. What is one thing are you curious about that was not covered on this tour? (open text field)
5. How could this tour be improved? (open text field)
6. Thinking back on the tour, what sticks out in your memory? (*Required*) (open text field)
7. Is there anything else you'd like to share about the tour or library? (open text field)
8. Which category best describes your affiliation with UNM? (multiple choice: undergraduate student, graduate student, instructor, staff, alumnus, not affiliated with UNM - community member, not affiliated with UNM - prospective student, other)

Appendix B

Codebook

Code	Explanation	Example Student Response
Amount of spaces	Student mentions the number of study spaces available as notable.	"The amount of study rooms and student resources available."
Art/architecture	Student mentions the art on the walls or architecture of the building	"What sticks out most in the library is the New Mexico architecture style throughout the building."
Books	Student mentions books, bookshelves, fiction, periodicals, journals	"The other floors have more books than the one you walk into."
Enjoyable feeling	Student mentions words like great, nice, really cool, happy, love, good, enjoy	"I like the horse shoe shaped room and the west wing, those surprised me."



Appendix B: Codebook, cont.,

Code	Explanation	Example Student Response
Future	Student articulates an interest in using the library or a particular space in the future.	"What stuck out to me was the indigenous study room area. They seem quite interesting and would probably try them out soon."
Newly oriented	Student indicates a new-found orientation to the space, marking a change from a previous state or understanding.	"I had no idea how to get to the other wings of the library, this really helped."
Norms/Rules	Student mentions a rule, policy, or behavioral norm	"The different sections of the library that have different uses, like the west wing reading rooms are mainly quiet and the main lobby of the library people can talk."
Nothing	Student reports that nothing sticks out in their memory about the library	"Nothing."
Quiet	Student observes the quiet or silent quality of a space	"The basement because of how quiet it is."
Proprioception	Student comment is related to proprioception, or the feeling of one's body in relation to the surrounding space.	"Initially walking into the west wing reading hall and enjoying the atmosphere it provides."
Smell	Student expresses experiencing a sense of smell	"The books in the basement and how the books smell."
Space to study in	Student mentions a room(s) or area(s) that can be used for studying or working.	"Finding all the nice quiet spots to study really stuck out. I'll definitely remember those!"
Stop 1	Student mentions a discreet space that occurs only during the first stop of the tour	"The audio recording booths on the first floor."
Stop 2	Student mentions a discreet space that occurs only during the second stop of the tour	"The study hall in the west wing seemed like a great place to do homework."



Appendix B: Codebook, cont.,

Code	Explanation	Example Student Response
Stop 3	Student mentions a discreet space that occurs only during the third stop of the tour	"The indigenous center is really cool!"
Stop 4	Student mentions a discreet space that occurs only during the fourth stop of the tour	"Where the tutoring is at."
Stop 5	Student mentions a discreet space that occurs only during the fifth stop of the tour	"The basement has a lot more to offer than I would've thought, so it stood out to me."
Stop Multiple	Student lists discrete spaces that occur at different stops	"The learning cubbies were really cool and so was the Harry Potter library."
Tour itself	Student comments on the tour or an aspect of the tour	"The stories from other students i loved that."
Unenjoyable feeling	Student mentions words like sad, intimidating, anxious, afraid	"The books. There are so many of them sadly there is no time to read them and considering I suck at reading I'll bet there will be only a few that I take from the library in all of my time here which is kind of sad."
Whole Layout	Student mentions the layout of the library as a whole, or generalizes an aspect of the library to its entirety	"The way its planned out to give equal opportunity to either study alone or with others."



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