

All Over the Place:

A Review of Research Methods Used to
Understand Physical Library Space

Lake Superior Library Symposium
June 6, 2025

Team

Outline

Context

Deliverables

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- Background
- Research Methods
- Considerations
- Conclusions
- Bibliography

Visual Research

Floor Sweeps &
Headcounts

Surveys, Interviews,
& Focus Groups

Other

LIS 722: College & University Libraries

Context:

Imagine yourself working at a college or university library (or archive, etc.). Maybe there is an upcoming renovation, university administration wants to use the space differently, or there is a little extra budget that can be spent on improving the space this year. You've worked here long enough to gather anecdotes, but you want something more solid and evidence based to make your best case for improving the space for your patrons. How do you collect and analyze data to make an informed decision?

Prompt:

Rather than focusing on the end results of what library space could look like, the goal of this assignment is to explore methods practitioners could employ to get a better understanding of how their library's space is used by or could better serve patrons.

Create an annotated bibliography that covers at least **5 different primary research articles** with at least **5 different data collection methods**.

Li, X., Ha, Y., & Aristeguieta, S. (2023). Teens' Vision of an Ideal Library Space: Insights from a Small Rural Public Library in the United States. *Evidence Based Library and Information Practice*, 18(4), Article 4. <https://doi.org/10.18438/ebliip30410>

This study primarily used drawings and interviews in their research of rural library usage by teens. The paper called out that surveys, focus groups, and interviews are the most common research methods the authors had seen used, but that younger participants engage more with visual media which led to their decision to use drawing-based activities. The participants, 27 8th graders from a rural middle school, drew responses to the prompt “design your ideal public library space for teens” during their normal art class time. There were also three follow-up questions that required written answers: how did the student feel about the current library, what they wanted in the current library, and a description of their drawing. The drawings were submitted anonymously as well. From that group, 2 teens recruited via convenience sampling did 30 minute interviews with follow-up questions on their ideal library space. While the drawing activity may have engaged students more, the written description of the drawing was necessary for data analysis with Dedoose. The authors employed constant comparison techniques to code

The end result felt like it could be really helpful to current practitioners; we should share it out!

Visual Research

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Visual Research

Visual research falls into two camps:

- Map centered
 - Mandel, L., 2016
 - Luo, J., 2018
- Photograph and drawing based
 - Bedi, S. & Webb, J., 2017
 - Asher, A. D., 2017
 - Poljak, L., Webster, B. M., & Kiner, R., 2023

Usage

Best for answering questions on:

- Layout and patron flow
- Patron experience and feeling
- Signage and decision points

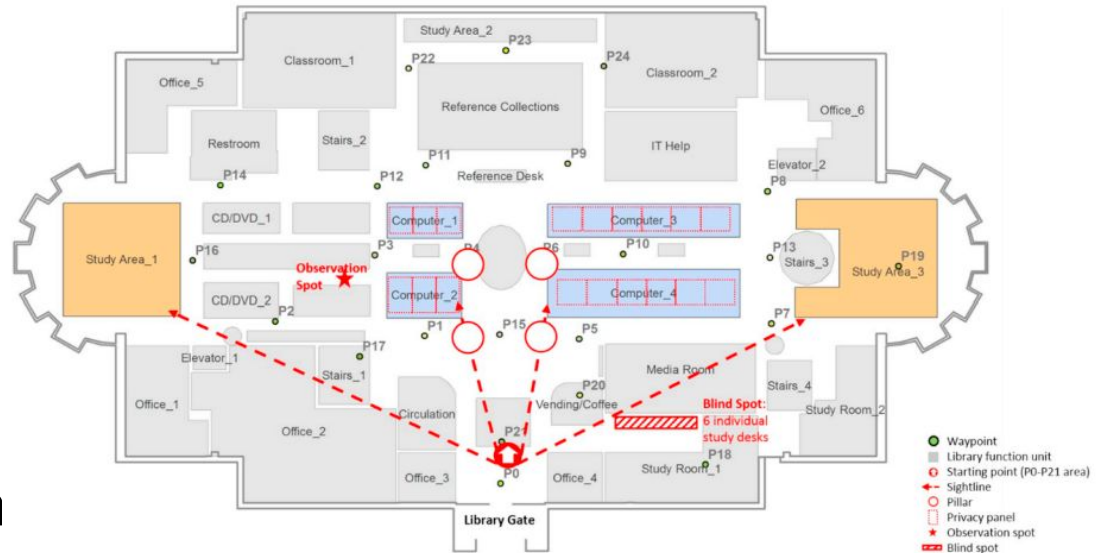


Fig. 3. First floor layout of the Lucy Scribner Library building.

Pros

- Very in-depth insights on user movement
- Captures user experience and emotion
- Engages users and elevates their voices

Cons

- Might require area experts (GIS)
- Higher investment of staff time for data collection

Who would this work best for?

- Libraries with a specific scope or patron population
 - Academic library, teen library, etc
- Libraries that have enough time to collect visual data
- Libraries that have access to resources such as cameras, recorders, art materials, etc
- Librarians with access to area experts (GIS)
- Libraries who want to include patrons in decision-making or uplift marginalized community voices

Example: Drawing

Li, X., Ha, Y., & Aristeguieta, S., 2023

- Invited teens to draw their ideal public library and describe challenges with current library layout
- Held interviews afterwards to get more detail
- Extensive coding and analysis of images and descriptions
- Small rural public library

Example: Semiotics

Fitzgerald, S. R., Reznik-Zellen, R., Berube, S., & Fischietto, C., 2023

- Staff/researchers did walkthrough of space to analyze signs and semiotic meanings
- Did not engage patrons
- Insight into improving signage and library communication

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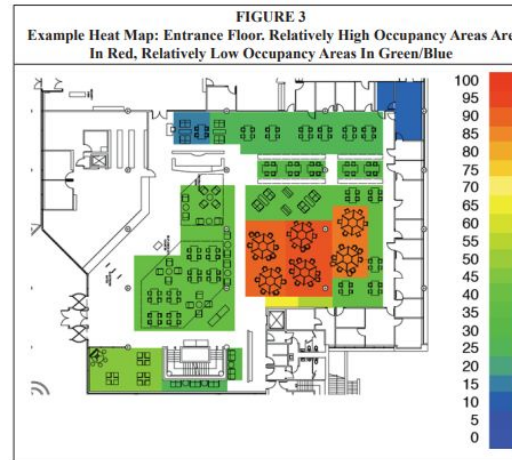
Floor Sweeps & Headcounts

Typically falls into two categories:

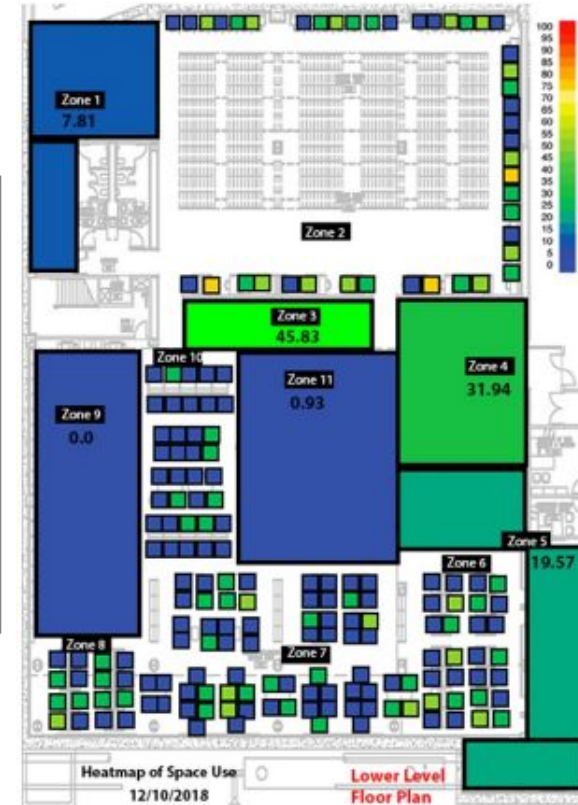
- What areas of the library are being used?
 - Khoo, Rozaklis, Hall, and Kusunoki (2016)
 - Dean (2023)
 - Torres and Paul (2019)
- What are people doing in your space?
 - May and Swabey (2015)
 - Hillman, Blackburn, Shamp, and Nunez (2017)
 - Prentice and Argyropoulos (2018)

Usage Areas

- Regular counts of what rooms, seating areas, or spaces are in use at that moment
 - The more data you get the better: repetition is key!
 - Static times, or rotating after set period
- Make sure all researchers know what sections or “uses” you are looking for



Khoo et. al (2016)



Dean (2023)

Patron Activity

- Used in conjunction with headcounts
- May include:
 - Items being used (computer, books, headphones, outlets, etc)
 - Are people using the space in unconventional ways
 - Assumptions on what they are doing (homework, socializing, recreational internet use)
 - Other demographic information that may be relevant (certain club/group in the same area, gender, staff/faculty/students/community members)
- Various activities may get a different code/symbol to make denoting activities easier
- Stratified sampling for busier areas

Methodologies

- Paper forms
 - Manually entered into online forms
 - Can be the easiest to get started with
 - Little training required
- Online forms
 - Google docs, specialty made forms (Qualtrics, Suma)
 - Can include more selections without becoming unwieldy
 - Less work on the back-end to get meaningful data

Pros

- Can give great insight into patron behavior
- Can be more credible than self-reported usage
- Easy way to get quantitative data
- Doesn't need a lot of preparation or gear
- Can break areas of a floor into zones to get more targeted data to make inferences from

Cons

- Can be time/resource heavy
- May get a variety of results if there are multiple reporters
- Need reporters to be reliable
- Potential to make users anxious/uncomfortable
- Doesn't explain how patrons got there or why they chose that space

Who would this work best for?

- Those with enough staffing to do it multiple times a day without leaving service points unstaffed
 - The amount of time needed would be dependent on the size of the library
 - If possible, particularly large libraries may want multiple reporters to ensure that all areas are being recorded at approximately the same time
 - Staffing should be consistent enough to conduct the survey for an extended period of time
- While they don't need advanced technical skill to conduct, having someone capable of compiling and creating meaning from the data is still important
- Those looking for more immediate results (more independent than other options)

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Surveys, Interviews, & Focus Groups

Surveys, interviews and focus groups work best for answering the questions:

- What are the best uses for this space? (Somaratna, S. D. (2022)), Hillman, C., Blackburn, K., Shamp, K., & Nunez, C. (2017), Hillman, C., Blackburn, K., Shamp, K., & Nunez, C. (2017)
- What changes would make the space more comfortable or useful? (Andrews, C., Wright, S. E., & Raskin, H. (2015))
- What activities are best suited for this area? Cooper Moore, A., Croxton, R., & Sprague, L. (2020), Borrelli, S., Chao, Z., & Su, C. (2019)

These questions reflect smaller remodeling or redesigning projects within a library. Looking at revamping one area? Surveys, interview, and focus groups provide the answers to your questions!

Focus Groups

Pros

- One focus group found an additional need not previously identified. They wanted a non-library learning classroom that allows faculty to teach classes.
- All of the items identified for learning spaces in the first focus group were supported by the 2nd and 3rd focus groups.

Cons

- Only 45 people were involved in the focus group and student patrons made up 21 of those. Also, students were only involved in the second focus out of 3 focus groups.
- Focus groups are notorious regarding participation. Unless you have lots of time and money, it is difficult.

Surveys

Pros

- Surveys are a great way to gather opinions on furniture, software, and signage for the redesign as you can include photos of the items and patrons have time to research software if needed.
- Adding patron interviews helps solidify survey results and confirms data.

Cons

- There was a low return rate for surveys, only 22% were returned. Casting a wider net to achieve survey results does not necessarily yield better results.
- Some parts of the survey were rushed. This could account for the low return rate. More time was needed.

Interviews

Pros

- Random interviews for a free coffee at the library cafe.
- Interviews were conducted by an experienced librarian and were available either in-person or via phone call, at the participant's convenience. All were given a \$10 Starbucks card.

Cons

- There were few weaknesses with this study. The main weakness would be the cost and staff time, however, the results were impactful.

Increases in Family Friendly Room Reservations

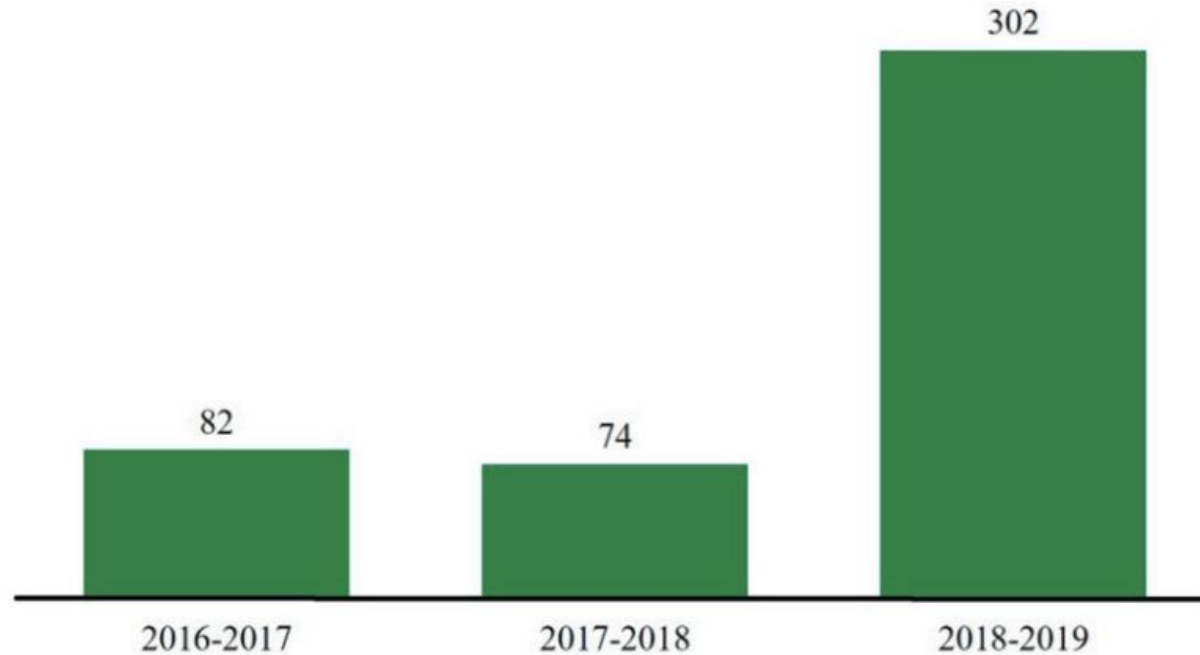


Figure 6. Family Friendly Room Reservations.

Successful Steps

- Interviews were conducted weekly at the library cafe. Students were offered free coffee in exchange for a brief interview. This was advertised before and during the event.
- Library staff conducted interviews at alternative hours both in person and remotely at the patron's schedule.
- A flip chart and white board questions allowed anonymous responses at any time.
- Surveys work great for selecting options between furniture and technology.
- Focus groups can work well if you have the time, participation, and library staff available.

How should I start a survey, interview, or focus group?

When looking at conducting your own survey, interview, or focus group, consider the following resources used in the above studies.

Surveys:

- Google Forms - A free resource, easy to set up, most users are familiar
- Qualtrics - Available from many academic universities, extensive results

Interviews:

- Most of the libraries in these studies interviewed patrons as they encountered the space or used a sign-up form, some used email approaches. One approached patrons i person for an interview.

Focus Groups:

- Libraries used email to approach students to sign up for a focus group.

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Delphi Study

1. Looks to capture the opinions of experts to make predictions about the future.
 - a. Definitions of what makes someone an expert can vary (e.g. self-identification).
 2. Multiple rounds of data collection and analysis is typical.
 3. “The basic premise of the delphi technique is that experts have the best idea of what the future may bring.”
 4. Relies less on sample size than the captured expertise of the group.
 5. Questionnaire sent by small team to larger group of experts.
 6. Questionnaire evaluated and sent out for review for consensus.
 7. Second round evaluated by organizers
 8. Process repeats until consensus is reached or it is apparent that it won't be reached.
- Lund, B. D. (2020). Review of the Delphi method in library and information science research. *Journal of Documentation*, 76(4), 929-960.

Pros

- Good to get some data collected quickly.
- Sample size isn't as much of a consideration.
- Good for exploratory research/a place to start.
- Finding where there isn't consensus can be helpful, too!

Cons

- Not meant to be statistically rigorous.
- Unforeseen events/changes even "experts" cannot predict
- Not really clearly defined in terms of process or procedure.

Christoffersen, D. L., Farnsworth, C. B., Bingham, E. D., & Smith, J. P. (2021). Considerations for creating library learning spaces within a hierarchy of learning space attributes. *The Journal of Academic Librarianship*, 47(6), 102458.

Ludwig, L., & Starr, S. (2005). Library as place: Results of a Delphi study. *Journal of the Medical Library Association*, 93(3), 315

Delphi Study: Example

Ludwig & Star (2005). Library as place: results of a delphi study.

- “14 librarians, architects, and space planners with recent experience in designing health sciences libraries.”
- An additional 16 participants were recruited via snowball sampling (respondents provided additional experts).
- Developed 78 “opinion statements” and looked to see if there was consensus.

Example opinion statement: “By 2010, compact shelving and remote storage will become the commonplace solution for housing older print materials.” 92% agreed!

When should you consider a Delphi study?

- When you have a close network of experts to contribute.
- When you are looking to anticipate future changes.
 - Library patrons might know what they need right now, but have not thought as far forward as experts.
- When there isn't a lot of established research on your particular angle.

Diary Study (Heindl, B. & Hillbrich, R., 2022)

- Participants record their actions and behaviors in a diary.
- Define what goes in the diary
 - Breaks, interruptions, different activities, etc.
 - Timestamping?
- Diary prompts (what should participants write about on certain days?)
- How long does the data collection last?
- Determining other supporting methods (e.g. follow up interviews)
- Balancing structure and authenticity

Pros

- Don't have to rely on recollections
- Participants are actively involved in creating data
- Less time than something like shadowing/observations

Cons

- Potentially invasive
- Time commitment for participants and researchers
- Diaries might need context/explained
 - Can't ask follow ups

Heindl, B. & Hillbrich, R. (2022). Getting real close: What a diary study can do for your library. *Weave: Journal of Library User Experience*, 5(1).



Considerations

- How do you decide what method to use?
 - Start by asking yourself some questions!
 - The same question can be answered by a variety of methods, but these will help you narrow it down.
- What is your research question? What is the goal of your project?
- How much time do you have? How many staff will be involved?
- What are you going to do with data you are maybe already collecting?
- Is it easy to get going?

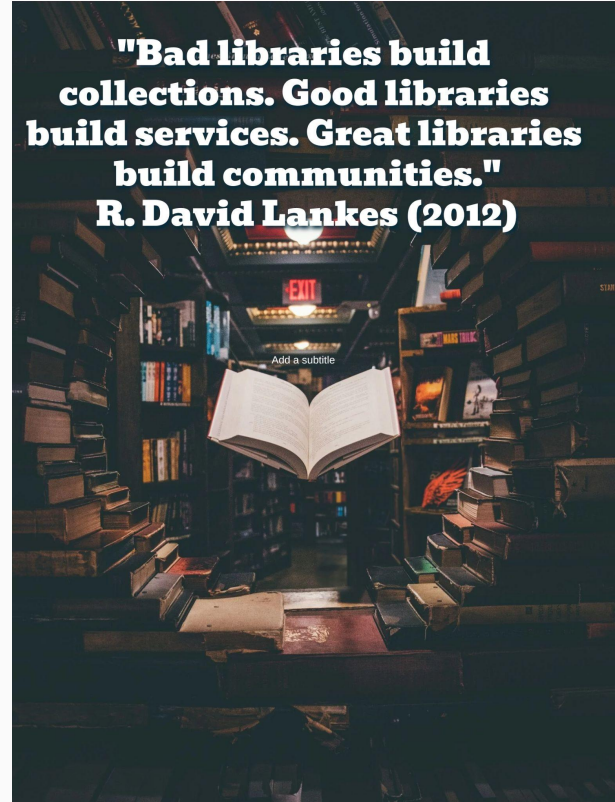


Considerations

- Exploratory vs Validation
 - Are you trying to get ideas for what your project could be?
 - Are you trying to confirm your approach will be successful?
 - Are you trying to gauge current thoughts/opinions/experiences of your communities?

Future research could include:

- More emphasis in technology needs and how the physical space and library staff can assist those needs (for example, courses in AI use and online help).
- None of the studies mentioned parking issues. This is a big issue for commuters and visitors.
- None of the studies mentioned outdoor spaces for libraries.



Thank you!



Questions?

References



RESEARCH LINK