Abstract

Have you ever been frustrated by the limitations of reference statistics to understand your users’ motivations and needs? Librarians at Pepperdine University wanted to know why students continue to ask librarians for research assistance in an era of declining national reference statistics. We scrutinized our increasingly detailed reference statistics, but they failed to provide the explanations we wanted. Most of the literature on help-seeking behavior discusses reasons why students do not ask librarians for help, but we were interested in students’ motivations for seeking assistance. We conducted a qualitative study to (1) better understand what prompted students to ask librarians for help, and (2) learn more about how students search for information. To answer these questions, we conducted semi-structured interviews with undergraduate students who had received reference assistance. By conducting interviews, we could overcome the limitations of quantitative data by better understanding students’ emotions and asking probing follow-up questions. The interviews were recorded and transcribed. Using the technique of applied thematic analysis to make sense of the transcripts, we created a codebook and applied codes to the transcripts using NVivo software. We organized the codes into six themes:

1. How students research
2. Perceptions of their research skills
3. Assumptions held, both about the library and the process of searching for information
4. Motivation for asking for help
5. Path to the librarian
6. Experience working with a librarian

Some of the insights we uncovered during the interviews included:
- Students’ “do-it-yourself” research preference and emotions during the research process
- Leading catalysts motivating students to ask a librarian for help
- Surprising assumptions students make about library services
- Time devoted by students when attending to challenging research questions
- Limitations of students’ research skills when they search for information independently

The information gleaned from our study provides insight into our students’ research motivations, habits, and challenges. It gave us the opportunity to assess the overall experience of students’ satisfaction with our research services. The findings help us to tell a better story than usage statistics alone. We hope that, by sharing our research process with other librarians, we can inspire other librarians to seek qualitative data such as student interviews when assessing services and evaluating statistics.

Introduction

According to national trends on reference statistics from ARL, reference questions are declining; however, at our university, reference statistics are on the rise. While this is great news, we did not know why this was happening. Our research focused on what motivates students at our university to ask librarians for research assistance. We had been including more detailed information at the transaction level for the reference statistics using Springshare LibAnalytics. Not only did we map the patron’s question to one or more of the six ACRL Information Literacy Frames, but we also began tracking when questions were specifically linked to library instruction sessions. Still, we realized that quantitative data was insufficient in providing an explanation about why students were asking for research assistance. In order to understand why we
are increasingly in demand, we realized we needed to collect qualitative data. We chose to reconnect with students who had asked us for research assistance and conducted semi-structured interviews with them. From these interviews, we learned more about their information seeking behavior and their motivations for seeking help.

We have speculated about the connection between reference transactions and other services such as library instruction; however, we had scant evidence about the impact of library instruction on reference interactions until we conducted the interviews. Furthermore, our interviews allowed us to look beyond our assumptions of why students sought help. This paper explains in detail the methodology of our qualitative study. Fellow librarians can use this model to conduct their own qualitative investigations in order to answer institutional questions that reference statistics cannot answer.

**Literature Review**

Very few papers on students’ help-seeking behavior explore the reasons that students ask for help; instead, studies like Robinson and Reid use qualitative interviews to explore what prevents students from seeking a librarian’s aid; they identified anxiety, fear of appearing foolish, or the notion that they would be bothering busy librarians as reasons students never make it to the reference desk.¹

Other studies have aimed to determine whether students are more likely to ask librarians, faculty, or peers for help. Miller and Murillo discovered that many students were unfamiliar with librarians’ research skills. Students shared that they were more likely to consult professors, who they had relationships with, instead of librarians, who they had limited interactions with.² Moreover, students were more likely to contact their friends and peers for help than librarians.³

Murphy’s study of undergraduates’ research behaviors revealed students were confident in their skills, preferring to conduct research on their own; additionally, Murphy’s study supports Miller and Murillo’s findings—when students need help, they are more likely to consult professors, friends, or family rather than librarians.⁴

The limited literature exploring the reasons that students ask librarians for help concludes that faculty referrals are crucial for getting students to consult librarians. Karen Sobel’s study exploring why students asked librarians for help showed that the leading reason for students asking reference questions was not librarians promoting service during library instruction, but faculty referrals.⁵ Pellegrino’s study looked at the likelihood of students asking reference questions after receiving library instruction, and the results support Sobel’s findings. She found that there was not a statistically significant connection between students asking reference questions because of library instruction sessions, but there was a statistically significant connection between faculty referrals and students’ reference questions.⁶

These results should not discourage instruction librarians. According to Carol Perruso’s four-year cohort study, students who received library instruction were three times more likely to seek assistance from librarians than students who did not receive instruction.⁷

Magi and Mardeusz have conducted the only qualitative research study exploring why students consulted a librarian. The study performed textual analysis of responses to open-ended questions distributed after research consultations; the most frequent reason for students to seek a librarian’s help was a faculty referral, followed by students learning about reference services from library instruction.⁸ Magi and Mardeusz restricted their research focus to students’ motivations for seeking help, along with their experience of being assisted, and their preference for in-person assistance over online help.⁹ Following in the path of other researchers, our study builds on their work using a different qualitative approach to explore how students search for information before asking for help and what motivates them to ask for help so we can better understand students’ research needs.

Mizrachi’s study revealed that while most students begin their research with public search engines, most will also use library resources such as the catalog or databases.¹⁰ Similarly, Lee concluded that undergraduate students prefer to consult public search engines to begin their research.¹¹ The preference for public search engines does not provide students with the skills to navigate library databases, and Head discovered that nearly three-fourths of students encounter difficulties when choosing keywords and constructing effective
searches.2 The research on students’ information seeking behavior suggests that students will need assistance with their research.

Taken together, the literature on information seeking behavior and help-seeking behavior touch on similar themes that often overlap. When students are conducting research independently, they prefer the most convenient tools, such as public search engines. If students need help with research, they are more likely to consult course instructors or friends and their reluctance to consult librarians might be out of embarrassment, anxiety, or a misunderstanding of a librarian’s role. The studies on help-seeking behavior indicate that librarians should forge partnerships with faculty in order to gain access to students via both library instruction and direct professor referrals.

**Purpose**

Our goal in conducting these semi-structured interviews was to shed light on students' information seeking behavior. Once we understood why they asked for help, we could begin to identify effective ways for us to reach more students. The present study aimed to answer these two research questions: (1) How do undergraduate students look for information? (2) What prompted the students to seek out help from a librarian?

**Process**

**Formulating Interview Questions**

In order to answer the above research questions, we would need to understand students’ thought processes and the motivations behind their actions. Most surveys contain predetermined questions, and even open-ended surveys preclude the opportunity for researchers to ask follow-up questions. Interview questions were selected to guide the conversation to answer our research questions while allowing the interviewer to pursue interesting leads, and probing questions were crafted to clarify statements and dig deeper.

**Selecting Participants and Conducting Interviews**

We conducted 10 one-on-one interviews with undergraduate students and we felt the level of in-depth probing in each interview was preferred to hosting multiple small focus groups. We limited our study to 10 participants because research from Guest, Bunce, and Johnson suggests that most of the important themes are addressed within the first six interviews and that data saturation occurs within 12 participants of an applied thematic study.13 We were able to interview an ethnically diverse group of students with a balance of majors within the undergraduate divisions. Every student who was given at least 20 minutes of in-person research assistance was asked if they wanted to participate in our study. We provided $20 Amazon gift cards as incentives for students to be interviewed.

We were able to conduct all 10 interviews within about six weeks of students receiving assistance from librarians. Our requests for interviews were successfully timed during a momentary lull for students near the end of fall semester—after research papers were completed but before final exams got underway.

**The Interview Process**

Because of concerns with students being reluctant to provide forthright responses to public services librarians who might assist them in the future, the assessment librarian conducted the interviews. One-on-one interviews were scheduled for one-hour blocks that were recorded and later transcribed. Students were asked a series of semi-structured questions that were organized into five sections comprised of a main question and probes designed to encourage students to elaborate on their responses (see Appendix 1).

The opening question asked the student to describe a “time in the past semester where you needed help locating information after trying to find the answer on your own.” Probes inquired about which resources they searched, the physical location where they conducted research, and how long they searched before seeking help. Additional probes asked students to explain the context for the moment when they realized they needed help and why they sought help from a librarian.

The second set of questions switched gears by asking students to think about a time they utilized a librarian’s help. Probes inquired about students’ emotions before, during, and after the process, as well as describing the assistance the librarians provided. In addition, students were asked in hindsight if they would have changed anything about the approach they took. It was important to not ask leading questions such as, “What did you learn from the librarian?” because this question assumes that students learned new skills from the
What if the student felt that the librarians had not imparted any useful knowledge? To learn if students gleaned skills from their interacting with the librarian, our probe asked, “And now, let’s think back again to what you observed in working with a librarian. Are there strategies or tools that the librarian used that you would want to try or use in the future?”

The third section of questions asked students to explain why they chose to specifically approach a librarian for help. Our follow-up question asked students to elaborate on the point they were at in the search process when they decided to go for help.

Our fourth segment (and last formal set of questions) asked the student to explain “any difficulties you may have encountered when asking a librarian for assistance.” We wanted to know what barriers, if any, they experienced while seeking help. And finally, we concluded the interview by asking if they had anything else to add that we had not asked about.

We know reference questions have increased; these semi-structured in-depth interviews allowed us to explore students’ thought processes and motivations that could explain “Why” reference questions have increased.

**Data Analysis**

We used the technique of applied thematic analysis because it helps qualitative researchers find meaning from the results of interviews or focus groups by applying codes and identifying important themes. This was an ideal approach for organizing the data from our transcripts.

We used the transcribed interviews for our analysis. Each member of the research team read the transcripts and identified themes and recurring points or concepts; we made notes about our observations on paper index cards that we shared at meetings. Over the course of a few meetings we organized these 3x5 cards with our observations into groups representing larger categories relating to main research questions. These larger categories were subdivided into specific categories relating to the larger concepts—our piles of index cards became detailed brackets which we recorded on a whiteboard (see Appendix 2). These brackets helped identify our future codes, which we formally rendered into themes. The purpose of this process was to create a codebook that would be used to tag sections of our transcripts. The codes would identify sections of the transcripts to analyze for trends, patterns, and answers.

Once we had identified our codes, we were prepared to create a codebook; each member of the research team was responsible for writing definitions for the codes. This process required assigning a shorthand name, defining the code, and providing examples of when and when not to use the codes (see Appendix 3). We met to review each other’s definitions in order to amend and approve codes. Once we ratified the codebook, we were prepared to begin coding the transcripts. We used NVivo, a software program which helps organize coded text, retrieve relevant quotes, and identify code frequencies. One team member was designated the primary coder, and their work was passed to the other members who could ratify, question, or amend coding decisions. Finally, the primary coder finalized the coding with updates and changes. This collaborative process allowed us to reach complete intercoder agreement.

What did all these codes tell us? NVivo allowed us to see all the sections tagged with the same codes across all the interviews. For example, the WRKWLIB (working with librarian) code was applied to sections of the transcripts in which students discussed “skills students learned from working with librarians.” NVivo allowed us to look at all the quotes relating to a particular code; this made it easy to see trends by identifying key points that repeated throughout interviews.

Using codes to analyze semi-structured interviews revealed information we could not have gleaned from a survey. For example, we were interested in knowing if students experienced difficulty contacting librarians—perhaps we were unapproachable or our contact information was difficult to find. To uncover real or perceived barriers, we asked the students toward the end of the interview, “Can you talk about any difficulties you may have encountered when asking a librarian for assistance?” While none of the students identified difficulties, our code “Assume”—which we applied to places in the transcripts where students have made assumptions about library services—allowed us to tag a research hurdle for students. Earlier in the interview process, when we asked students to tell us about their experience seeking a librarian’s help, some students discussed self-imposed restrictions they placed on utilizing help from librarians. A few students felt there were
limits to how many questions they could ask, and some decided they would “save” reference questions for upcoming assignments the way a football coach strategically saves time-outs to be used at the most opportune point in the game. We coded examples of preventing students from utilizing librarians as “Assume.” Our analysis was able to uncover self-imposed barriers based on personal perceptions; these “question quotas” would have been missed by survey questions because we could not have anticipated a way to craft a question that would give us answers we did not even know existed.

Our codebook contained 33 codes that we applied to all of the transcripts. When we began working on the codebook, we identified some broad categories; however, after coding all of the interviews we had a much better idea of the themes we should use to make sense of our findings. We identified six themes that made it much easier to organize our findings and discuss the data:
1. How students research
2. Perceptions of their research skills
3. Assumptions held, both about the library and the process of searching for information
4. Motivation for asking for help
5. Path to the librarian
6. Experience working with a librarian

Takeaways
Our study revealed a lot about our students’ research habits and help-seeking behavior. A few key discoveries include:
• Library instruction was a strong motivation for students to ask librarians for help. In the interviews, students mentioned that the librarian encouraged them to ask for help if they needed assistance.
• Referrals from professors were also a strong motivation for students to ask librarians for help. Students who visited a librarian because of a professor’s referral did so for a few reasons:
  - Some understood from assignment instructions that the professor’s expectation was that they take questions to the librarian, so they followed these instructions.
  - Others had a rapport and respect for professors that motivated them to follow faculty recommendations to seek help from librarians.
• As previously discussed, many students have a self-imposed rule about how much help they can seek from librarians.
• All 10 students expressed a strong preference for a “do-it-yourself” (DIY) approach to research.
  - This desire stemmed from a preference to take ownership of their research and not wanting to appear lazy.
  - Some students indicated that they would need to research on their own after graduating, and they needed to hone their skills independently.
  - Despite this DIY preference, students were willing to seek help when they encountered a challenging research question that took what they considered to be an unreasonable amount of time. Students mentioned spending from 30 minutes to several weeks conducting research independently, with a couple of hours being the average before seeking help.
  - In addition to devoting considerable time on difficult research questions, students also expressed negative emotions such as stress or frustration prior to asking a librarian for help. Students were particularly frustrated when they were searching for information that they knew existed, but were unable to locate.
• Students preferred the ease of typing keywords into Google, but they struggled to effectively search library databases. Librarians were instrumental in helping students select effective search terms, use the advanced search features, and narrow down their topics.
• Students understood the importance of locating credible sources, but they experienced trouble locating them. These limitations with the students’ research skills required the assistance of librarians.
• Every student was satisfied with the help they received and indicated they would ask librarians for help with future assignments. Students showed an interest in learning more about the strategies the librarian employed during their session in order to utilize those skills with future assignments.

Value to Other Librarians and Ideas for Further Exploration
Because of students’ DIY mentality, librarians must identify the most effective methods for promoting reference services. Our research highlights the importance of forging partnerships with faculty. Strong relationships with faculty will provide more opportunities for library classroom instruction and
referrals from professors. Classroom instruction is a great forum for librarians to dispel myths about library services such as “quotas” on the number of questions students can ask librarians. Moreover, librarians can let students know that they can save a lot of time with their research by scheduling consultations.

This qualitative study gave a glimpse into student’s minds so we could begin to understand why they do what they do. By mining the rich data from their own qualitative studies, librarians will be able to answer their own institutional questions.

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References


9. Ibid., 609–613.


12. Alison J. Head, Learning the Ropes: How Freshmen Conduct Course Research Once They Enter College (Project Information Literacy, December 5, 2013): 15.


Appendix 1. Interview Questions

1. I’d like you to think back to a time in the past semester when you needed help locating information after trying to find the answer on your own. Please talk about this experience.
   a. Was it for an assignment or something you were trying to learn more about on your own? What was it you were trying to find? How did you go about looking for the information? What did you try? Where did you look? Where were you (e.g., in your dorm, the cafe, the library)? How long did you keep trying to find information before thinking that you might need to ask someone else?
   b. Thank you for giving such a good context about the information you were trying to locate. I’d like you to talk now a bit about that moment when you realized you would need help.
      i. Can you compare how you felt to another time that you felt the same way?
   c. Thanks for talking about that. Now I’d like to learn more about your thought process when seeking out help from someone else. What made you seek out the person who helped you find your answer or think through your problem?

2. It’s been helpful for me to hear about the context in which you found yourself needing help locating information. We’re going to switch gears and focus now on a time when you utilized the help of a librarian. Please tell us about this experience.
   a. How did you know who to contact in the library? How did you know where to go to ask for help?
   b. Thanks. Can you describe for me what the librarian did when you asked for help?
   c. I’d like you to think about how you felt while being assisted. And now I would like you to tell me how you felt when you were finished.
   d. Is there a certain context in which you would find yourself asking for help from a librarian in the future?
   e. With hindsight, if you had it to do over again, tell us how you would look for information for this assignment/question?
   f. And now, let’s think back again to what you observed in working with a librarian. Are there strategies or tools that the librarian used that you would want to try or use in the future? If yes, please explain.

3. Thanks for talking about your experience with the librarian. I’d like you to think about why you contacted a librarian for help.
   a. What point in your search did you contact the librarian?

4. I appreciate all the thinking back to your experience with the librarian and the context for reaching out to a librarian. I have one final question about this interaction with the librarian. Can you talk about any difficulties you may have encountered when asking a librarian for assistance?
   a. Tell us how librarians can be more approachable.

5. You’ve been so helpful in talking with me today. I’d like to ask if there’s anything you would like to add.
Appendix 2. Collaborative Work on Coding Branches

Table 1: Self as researcher

<table>
<thead>
<tr>
<th>Library experience</th>
<th>Time to spend doing research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Library experience

<table>
<thead>
<tr>
<th>Code Name</th>
<th>TIME (CM) - AGREED on 05.11.16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief Definition</td>
<td>time spent doing research</td>
</tr>
<tr>
<td>Full Definition</td>
<td>describes quantity and/or the quality of the time period(s) allotted to doing research; time spent devoted that relates to doing research for a college assignment, including the time spent with a librarian</td>
</tr>
<tr>
<td>When to Use</td>
<td>whenever a student quantifies the amount of time (e.g., two weeks, three hours) whenever a student generalizes the amount of time (e.g., a long time) whenever the student describes productivity of the time (e.g., wasted my time)</td>
</tr>
<tr>
<td>When Not to Use</td>
<td>as it relates to hypothetical of what another student would or would not spend time doing for research “I don’t have the time to go in and sit down for an hour or whatever” [referencing the friend of the interviewee who discussed feelings about meeting with a librarian] [00:00 110915(2)]</td>
</tr>
<tr>
<td>Example/Quote</td>
<td>“I don’t know exactly how long, but I’d say... a couple of hours” [07:00 110915(1)] “I searched for a long time on my own and I just shouldn’t have wasted that time.” [25:00 110915(1)]</td>
</tr>
</tbody>
</table>

Appendix 3. Example of a code from our codebook