

Secret Shopping As a Method to Understand User Experience: A Case Study

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Introduction

Various methods have been used to assess and evaluate how well library public services (e.g., access and reference services) meet users' needs.¹ While most research involving reference and information services has taken a quantitative approach, some studies employed a qualitative approach in an effort to obtain more nuanced and in-depth data.²

Secret shopping, also known as mystery shopping, is one qualitative method that has been employed in many library settings. This research method originated from the retail and hospitality industries and evaluates customer service by having trained people act as customers and rate their experience based on given criteria. In the library setting, a secret shopper poses as a patron and asks a library employee at a service point (e.g., circulation desk) a question based on a given scenario and then evaluates their experience with the service point.³ Prior work shows that the secret shopping method has been useful in gathering rich data that may complement quantitative data such as statistics collected at service points and may help identify areas for improvement. While the secret shopping method allows libraries to gather valuable data regarding their services, many studies have pointed out that this method tends to require a lot of time and effort because obtaining library employees' buy-in from the beginning of the process is critical to its success, and there is no standard for determining what aspects of service quality should be assessed and developing instruments accordingly.⁴

Tulane University Libraries (TUL), which includes the Howard-Tilton Memorial Library (H-TML), the main library, the Rudolph Matas Library of the Health Sciences (Matas), the Latin American Library, Tulane University Special Collections, the Alfred H. Clifford Mathematics Research Library, and Media Services serves approximately 14,000 undergraduate and graduate students. TUL operates several service points across the libraries, and for each service point, TUL has mainly been utilizing quantitative data (e.g., transaction statistics from LibAnswers) to assess usage of TUL's services.

In the spring 2019, in order to better understand how Tulane students experience library services at different service points, TUL conducted a user experience study employing the secret shopping method. Specifically, the study was intended to document students' experience with current library services, provide benchmark data, and provide inputs for refinement and/or development of training for library employees if necessary. Four service points (i.e., the H-TML Circulation Desk, the H-TML Research Help Desk, the H-TML Media Services Desk, and the Matas Information Services Desk) were included in this study. We decided to focus on these four service points rather than address all service points because these are most heavily used and we wanted to concentrate our efforts on these points in our initial secret shopping study.

At the time of the study, the Howard-Tilton Memorial Library Circulation Desk, Research Help Desk, and Media Services Desk) were staffed by either library staff or student workers, while the Information Services Desk at the Matas Library was staffed by a member of the library staff and a librarian during its regular hours, and by a student worker after hours. In planning for the study, we fully understood that it was critical to obtain buy-in from all library employees involved in running the four service points from the beginning, as prior work has pointed out. For this, we first reached out to the supervisors of each service point to share information about the study, including its goals, how it would be designed, how and

when it would be conducted, and how results would be utilized to help improve library services. We then asked the supervisors to share that information with relevant staff so that they were aware of the planned study.

The study was approved by the Tulane University Human Research Protection Office (Study Number: 2019-126). The following section describes in detail how the study was designed and conducted.

Methods

Instrument Development

In developing scenarios and an evaluation form for the study, the author first investigated previous work that employed the secret shopping method in the academic library setting. While most studies tended to provide limited information about the instruments used for their work, the author was able to find some studies that provided the full sets of questions and evaluation forms used.⁵ Furthermore, at the Library Assessment Conference in 2018, the author had a chance to speak with colleagues from Texas State University, Tricia Boucher and Jessica McClean, who had years of experience conducting secret shopper assessments at their institution. Thankfully, they were willing to share their experience and sample instruments. Based on information and sample instruments gathered from colleagues and previous work, scenarios and an evaluation form were developed for this study. As both H-TML and Matas had customer service guides that had been developed for their service points, these documents were also referred to when developing these instruments. These instruments were finalized after review by supervisors of the service points. The remaining of this subsection details how each instrument was developed.

First, an analysis of transaction data for the past three years (2016–2018) obtained from Ref Analytics in LibAnswers was carried out to understand interaction modes and topics of questions commonly asked by student users. This allowed us to identify main topics and interaction modes for each service point (see Table 1).

Table 1. Results of Transaction Data Analysis (2016–2018)

	H-TML Circulation	H-TML Research Help	H-TML Media Services	Matas Information Services
Main Topics	Book retrieval	Directional Reference	Directional Reference Technical help	Resources Technology Literature search
Main Interaction Modes	In-person visit Phone	In-person visit Chat Email/Phone	In-person visit Phone	In-person visit Email Phone/Chat

Based on this analysis, 45 scenarios were developed for this study. These scenarios included various combinations of question formats (i.e., in-person visit, phone call, chat, and email) and question topics (i.e., checkout, directional, literature search, reference including research help, resource, technology help, and miscellaneous) depending on the service point (see Table 2).

Table 2. Summary of Scenarios Developed

	H-TML Circulation	H-TML Research Help	H-TML Media Services	Matas Information Services	Total
In-person visit	8 (5 Checkout, 2 Directional, 1 Miscellaneous)	11 (8 Directional, 3 Reference)	6 (2 Directional, 2 Tech help, 2 Reference)	5 (3 Resource, 1 Tech help, 1 Literature search)	30
Phone	2 (1 Checkout, 1 Miscellaneous)	2 (1 Directional, 1 Reference)	2 (1 Directional, 1 Reference)	1 (1 Directional)	8
Chat		3 (1 Directional, 2 Reference)		1 (1 Resource)	4
Email		2 (2 Reference)		2 (1 Resource, 1 Literature search)	3
Total	10	18	8	9	45

Each scenario included the following information (see Appendix 1 for an example):

1. The service point that a participant would visit/contact, including its hours
2. The interaction mode (i.e., in-person visit, phone call, chat, and email)
3. The question topic (i.e., checkout, directional, literature search, reference including research help, resource, technology help, and miscellaneous)
4. The details which a participant could reveal as the library employee requested more information.

Then, an online evaluation form was developed using Qualtrics to capture participants' experience at the service point they visited/contacted for each scenario assigned to them. The evaluation form included questions about when and how a participant asked the question, how satisfied a participant was with the answer received, how a participant perceived the library employee's responses and attitudes, such as approachability and attentiveness, and observations a participant wanted to share (see Appendix 2 for questions).

Recruitment

Because students are the largest user group of TUL, this study focused on student users. To participate, students needed to meet the following four criteria:

1. Be at least 18 years old.
2. Be currently enrolled as an undergraduate or graduate student.
3. Be a first-time participant in research studies conducted by TUL in the spring 2019.

4. Be currently not employed as a student worker at TUL.

Recruitment was conducted through an invitation sent via email and flyers posted around the campus with the help of the Undergraduate Student Government, a library student worker, and Scholarly Engagement librarians. We recruited 25 undergraduate and graduate students. Among them, 21 participants completed the study.

Procedure

First, participants attended an introductory session. The introductory session was intended to provide a brief overview of the study and explain what participants were expected to do and how to fill out an online evaluation form to ensure that all participants had a common understanding of the study procedure.

Seven sessions were held, each with a range of two to five participants, and each session took approximately 30–40 minutes. After providing the information, we gave three randomly assigned scenarios to each participant. Lastly, participants were asked to fill out an online background questionnaire. The questionnaire included items about participants' demographic information such as gender, race, their school year and affiliation, and their previous experience with TUL.

Participants were given two weeks to complete their assigned scenarios. They could visit or contact the service point at any time on any day of the week that would work for them within the service point's hours. Once they completed the scenario, participants submitted an online evaluation form to provide information about how they perceived the customer service at the service point they visited/contacted based on their interaction with the library employee. Participants who completed all tasks involved received a \$25 Amazon.com gift card for their participation.

Results

Participants' Demographics

Of the 21 participants, six (29%) were male and 15 (71%) were female. Participants included five freshmen (24%), four sophomores (19%), six juniors (29%), two seniors (10%), two graduate students (10%), and two medical professional students (10%). They came from various schools, including Business, Liberal Arts, Public Health & Tropical Medicine, Science & Engineering, and Medicine, and they ranged in age from 19 to 30 (mean age = 22). Thirty-eight percent of the participants were white, 38% were Asian, 5% were Hispanic or Latino/Latina, and 19% reported themselves to be of mixed race.

Scenario Assignment

Participants submitted 62 evaluation forms in total. One participant (P14) was able to complete only two out of three given scenarios due to special circumstances. Of the 45 scenarios, four scenarios were not assigned thanks to the random assignment (see Table 3 for details). As each participant received three scenarios, 21 scenarios were assigned to two different participants among 41 scenarios assigned.

Table 3. Summary of Scenario Assignments

	H-TML Circulation	H-TML Research Help	H-TML Media Services	Matas Information Services	Total
In-person visit	15	15	8	7	45
Phone	2	4	2	2	10
Chat		3			3
Email		2		2	4
Total	17	24	10	11	62

The analysis of the dates and times at which participants visited/contacted service points indicated that the questions that were asked by participants were distributed relatively evenly throughout the week, except that fewer were asked on Friday and Saturday, and that the majority of questions (52%) were asked during the afternoon (noon–5:00 p.m.) (see Figure 1 and Figure 2).

Figure 1. Days of the Week Questions Were Asked

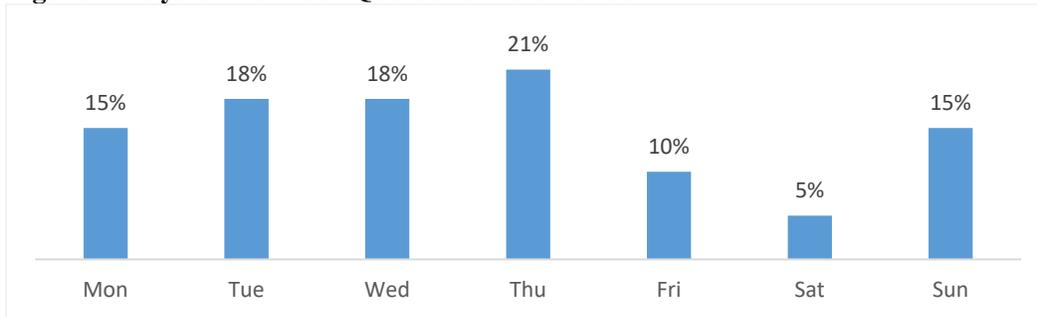
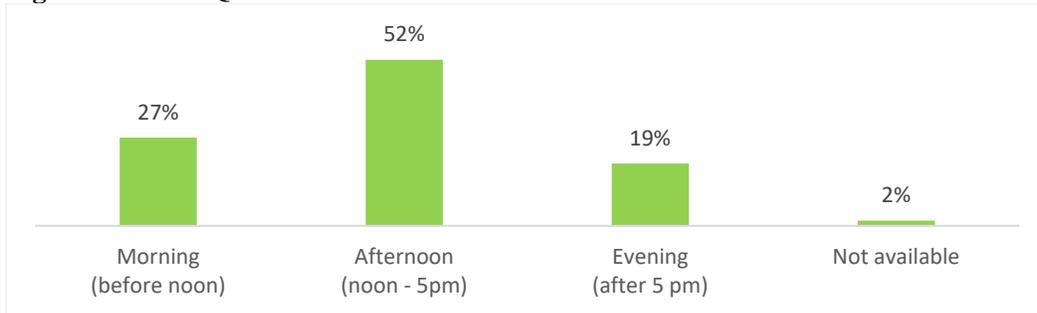


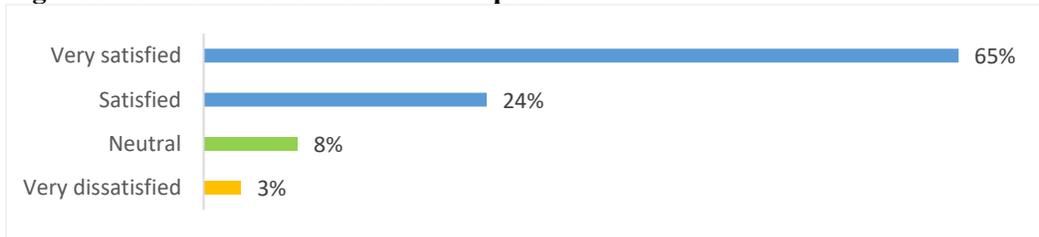
Figure 2. Times Questions Were Asked



Participants’ Experience at Service Points

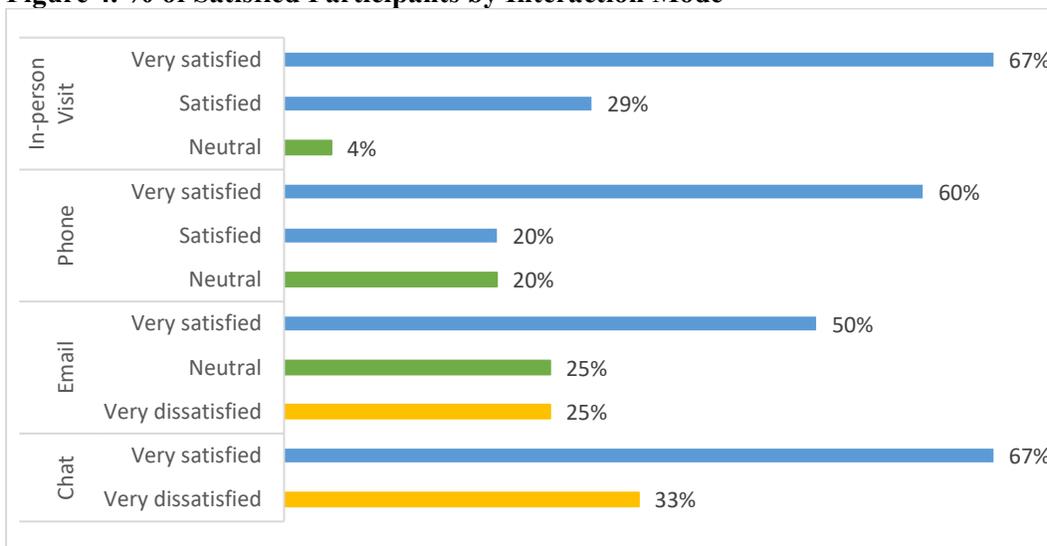
For each scenario, participants were asked to rate their satisfaction with the answer provided to them on a scale of 1–5 (1 = very dissatisfied, 5 = very satisfied). Overall, the average satisfaction rating was 4.5 out of 5, with 65% giving the rating of 5 (i.e., being very satisfied with the answer provided) regardless of the mode of interaction and location of service point (see Figure 3 for details).

Figure 3. Overall % of Satisfied Participants



When considering the modes of interaction, the average satisfaction rating was 4.6 out of 5 for the in-person visit, 4.4 for the phone call, 3.5 for the email, and 3.7 for the chat. The percentage of those who said that they were very satisfied with the answer provided was 67% in case of the in-person visit, 60% for the phone call, 50% for the email, and 67% for the chat (see Figure 4 for details).

Figure 4. % of Satisfied Participants by Interaction Mode



When considering the locations of the service points, the average satisfaction rating was 4.6 out of 5 for the H-TML Circulation Desk, 4.5 for the H-TML Research Help Desk, 4.2 for the H-TML Media Services Desk, and 4.5 for the Matas Information Services Desk. The percentage of those who stated that they were very satisfied with the answer provided was 73% in the case of the Matas Information Services Desk, 40% for the H-TML Media Services Desk, 63% for the H-TML Research Help Desk, and 76% for the H-TML Circulation Desk (see Figure 5 for details).

Figure 5. % of Satisfied Participants by Location

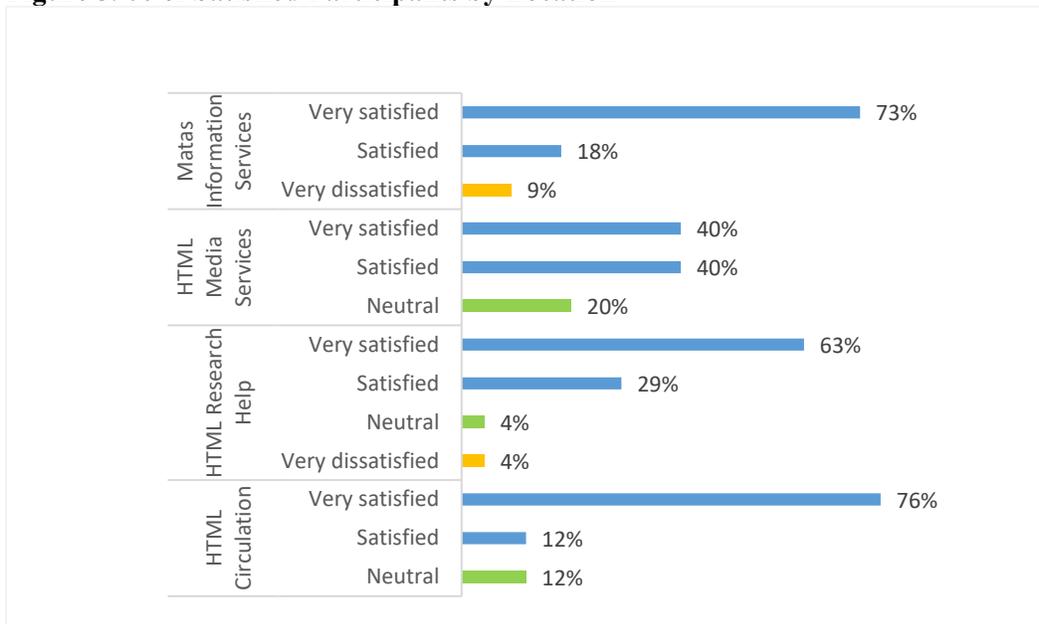
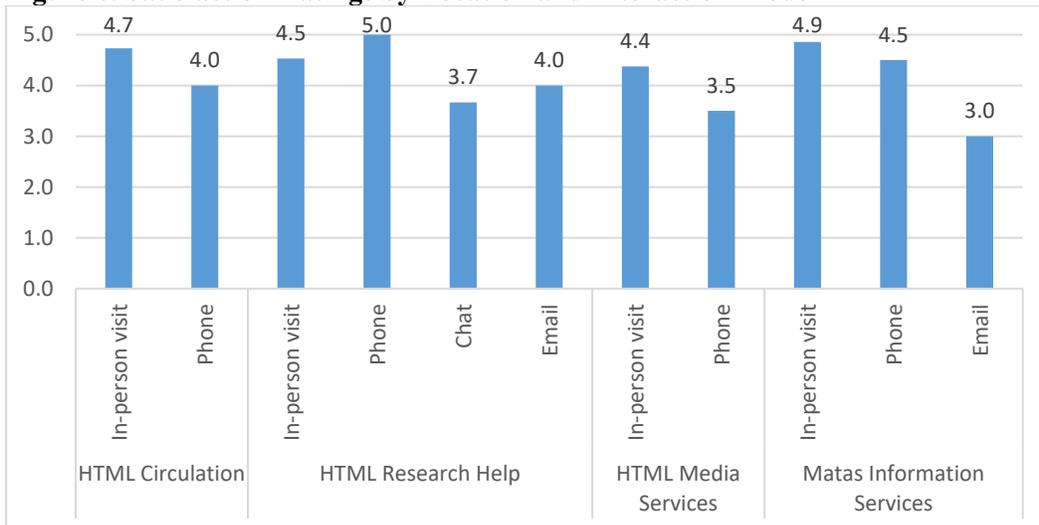


Figure 6 below shows the average satisfaction ratings by location and interaction mode.

Figure 6. Satisfaction Ratings by Location and Interaction Mode



Participants stated several reasons for satisfaction with the answer provided, including the individual who helped them being friendly, polite, prompt, helpful, and informative. Some participants also mentioned that the library employees “went above and beyond” by providing extra and additional information that was not necessarily requested by them. Illustrative quotes are included below.

“She (and the other desk staff member) were super friendly and definitely went above and beyond to help answer my question, even though I wasn’t able to be super specific about what I was looking for.” [P15, Interaction Mode: In-person visit]

“The person who answered the phone was very helpful and gave so much extra information. In fact, she even made me want to visit the library right now!” [P26, Interaction Mode: Phone]

“The response was very prompt. I received an email back within 15 minutes. The response was appropriate and it answered all my questions. A direct link was given for confirmation.” [P12, Interaction Mode: Email]

While most participants expressed satisfaction with the answer provided, a few participants who interacted with the library employees via means other than the in-person visit expressed some level of dissatisfaction with the interactions by providing comments on their experience. Examples of their quotes are included below.

“The person on the phone put me on hold for a few minutes and returned having forgotten what my question was. She then proceeded to answer my question, but it was unclear whether I was on hold because she needed to consult someone else.” [P09, Interaction Mode: Phone]

“I tried multiple times and would connect to the chat and no one would ever respond. I was unable to get help.” [P11, Interaction Mode: Chat]

When it comes to approachability of library employees, overall, participants reported that the library employee they interacted with was very approachable and attentive. For example, in case of the in-person visit, participants overwhelmingly (98%) stated that the employee made eye contact and greeted them. Please see Figures 7–9 below for details on approachability by interaction mode.

Figure 7. Approachability: In-person Visit

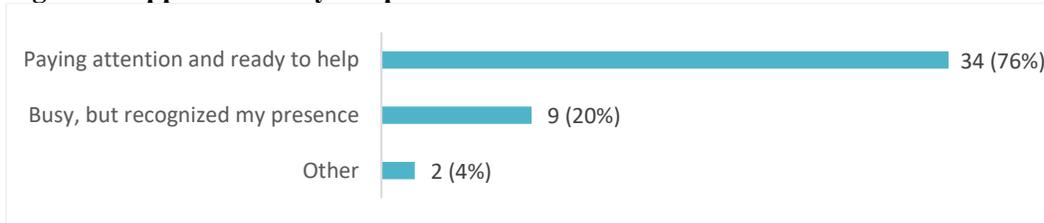


Figure 8. Approachability: Phone

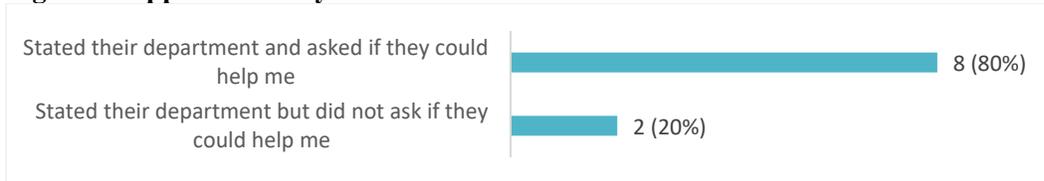
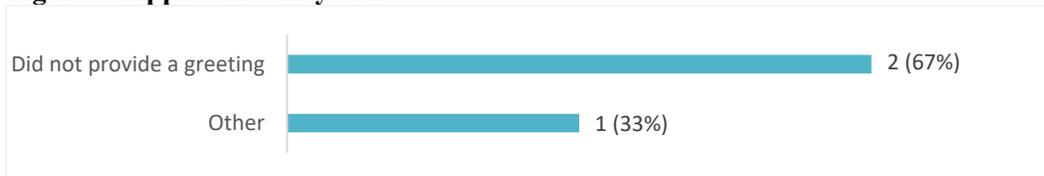


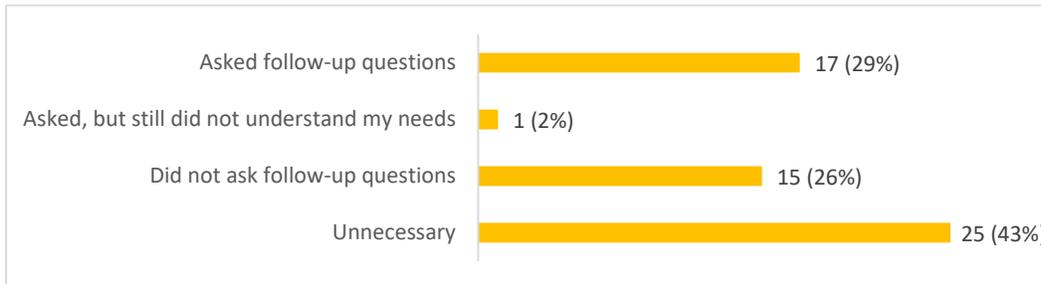
Figure 9. Approachability: Chat



All participants reported that the individuals who helped them waited for them to state their question and showed interest. Nearly all participants (98%) stated that they felt they were treated respectfully. When

asked whether they felt the employee listened to their question, most participants reported that the employees listened to their question fully and answered their question. It appears that whether the library employees asked follow-up questions depended on the type of question asked, with 43% reporting that it was unnecessary (see Figure 10).

Figure 10. Follow-up Questions



Most participants reported that the employee understood what they were looking for because the employee was able to give them an answer immediately. Nearly all participants (97%) reported that the employee did not use jargon or technical language when answering their question and they were able to understand the answer provided. Twenty-three percent stated that they were referred to other appropriate sources because the employee was unable to fully assist them. Specifically, 36% were referred to another desk, 21% were referred to a website, and 7% were given a handout. Lastly, when asked whether the employee confirmed that they received the information they needed, 55% reported that the employee did, while 32% said the employee did not, and 13% said “not applicable.”

Takeaways

After the study was completed, a report was prepared and shared with the Tulane University Libraries (TUL) leadership as well as the TUL community. This allowed us to identify what we are doing well and what we need to improve. Specifically, the results showed that the majority of the participants reported that their experience with four service points at TUL was positive and pleasant and that they found the library employees approachable and helpful. This demonstrates our continuous commitment to providing users with high-quality service by ensuring all staff and student workers at service desks are aware of and follow customer service guidelines.

As for further improvement, reminding our users that they can turn to the libraries for any other additional help at the end of interaction appears to be a good way to promote the use of library services and resources by making users feel more welcomed. For example, some participants said:

“She told me to come back if I needed more help, thought this was very good.” [P11]

“When I had mentioned at the end of the encounter that I appreciate the direction that he gave me, to start with this research about Diabetes, he stated, no problem we are here to help you through this and will help you finish this research. That was a good feeling to know that the library was willing to help a student through a difficult task.” [P14]

Although the research sample is very small, the results showed that there is room for improvement in online interactions via chat and email. For instance, in case of the chat, a few participants reported difficulty in connecting to the chat service despite multiple trials. To ensure smooth connections, TUL may consider refining the way to indicate chat availability.

As for the email interaction, a few participants seemed to expect a more personalized experience. For example, P12 stated that *“it would have been nice to have the last statement added that said ‘do you have any other questions’ or ‘I hope that was helpful, please let me know if you have more questions’ or even a ‘thanks.’”* Given that communication via computer-mediated technologies such as email tends to provide fewer cues than face-to-face communication, TUL may consider paying more attention when interacting with users via email to make sure that users feel fully engaged and satisfied.

Lastly, there seems to be an unexpected benefit of conducting a user study in the library setting. Some participants mentioned that they became aware of services or resources that TUL is offering thanks to this study and would consider using them later for their actual work. For example, some participants stated:

“Had never consulted with a research librarian before, but definitely would consider returning here later on for future projects.” [P15]

“I can make an appointment about further researching help if I need. I didn't know that before this experience.” [P16]

“I don't think people know these resources (i.e., AV equipment checkout at the H-TML Media Services Desk) are available.” [P21]

These comments indicate that user studies conducted at libraries may serve as a way not only to improve library services and/or resources but also to promote awareness among library users.

Conclusion

The results from this study indicate that overall, participants found their experiences at the library service points pleasant and positive. Most participants reported that they were satisfied with the answer provided regardless of the mode of interaction and location of the service point. Participants felt that the library employee they interacted with treated them respectfully, was attentive and approachable, and answered their question in layperson's language. A small number of participants who interacted with the library employees via means other than face-to-face contact, however, reported some dissatisfaction with their experience, including a lack of contextual cues in a phone interaction, lack of personalization in an email response, and difficulty in connecting to the chat.

These findings allowed TUL to identify not only what we are doing well but also what we need to improve, providing those involved in running service points with some specific benchmarking data and insights for service enhancement. For instance, the Media Services Department at H-TML used the findings from this study to update training and inform them in setting direction. Moreover, rich and contextual data collected from the study can help TUL get a better sense of how our users experience and use library services by offering data that can complement the statistics we have been tracking. We hope we will be able to take more advantage of this approach in the near future by expanding this study to other service points when the COVID-19 pandemic is over and things return to some kind of new normal.

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Grace YoungJoo Jeon is the assessment and user experience librarian at Tulane University. With colleagues within the Tulane University Libraries and elsewhere, she conducts qualitative and quantitative studies that assess library services, resources, and spaces to improve library users' experience. She previously worked in the Department of Communication at Michigan State University (MSU) and in the School of Information at the University of Michigan (U-M). At Tulane, MSU, and U-M, she gained ample experience conducting interdisciplinary user research studies employing methods such as surveys, interviews, focus groups, and experiments. She holds a PhD in information science from the University of Michigan.

Acknowledgements

The author wishes to thank Tricia Boucher and Jessica McClean at Texas State University for sharing their instruments and their experiences with secret shopping assessment.

Endnotes

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Appendix 1: Sample Scenario

Scenario 2: H-TML Circulation Desk – Check out

Background information and interaction mode:

In-person visit. The Circulation Desk is open Monday–Thursday 7:30 a.m.–1:00 a.m., Friday 7:30 a.m.–9:45 p.m., Saturday 9:00 a.m.–9:45 p.m., and Sunday 9:00 a.m.–1:00 a.m.

Question:

Ask if the library has the book, *Essentials of Negotiation*.

The details of which you can reveal as the employee requests more information:

You are looking for the book, *Essentials of Negotiation* by Roy Lewicki (2016). If the library has the book, you want to check it out. If the book is available for check out and you are going to check it out, you may also ask how long you can check out the book and if you can renew it, how to renew and for how long. The book is at the Business Library. The employee may show you how you can get to the Business Library.

If the employee sends you to another service desk or another employee, suggests you make a research consultation appointment, or directs you to another area, the interaction is over and you do not need to continue.

Appendix 2: Evaluation Form

1. Please enter your participant ID (e.g. P29):
2. Please enter the scenario number you are evaluating:
3. When did you ask this question? Please enter DATE and TIME you asked the question.
Date:
Time (e.g. 3:15 PM):
4. Please indicate your interaction mode:
In-person visit
Phone
Chat
Email
5. What was the answer that was provided to you? Give as much detail as possible.
6. How satisfied were you with the answer you received?
Very dissatisfied
Dissatisfied
Neutral
Satisfied
Very satisfied
7. Please comment on why you were or were not satisfied with the provided answer.
8. [In-person visit] As you approached the desk, the employee you asked your question of was...

Paying attention and ready to help
Busy, but recognized my presence
Not paying attention
Other (please specify)

[Phone] As you called the desk, the employee who answered your phone...
Stated their department and asked if they could help me
Stated their department but did not ask if they could help me
Did not state their department and did not ask if they could help me
Other (please specify)

[Chat] As you sent your question via Chat, the employee who responded to your question...
Provided a greeting
Did not provide a greeting
Other (please specify)

9. [In-person visit] Please comment on the employee's approachability.
10. [In-person visit] Did the employee make eye contact and greet you?
Yes
No
11. [In-person visit, Phone, Chat] Did the employee wait for you to state your question fully?
Yes
No
12. [In-person visit, Phone, Chat] Did you feel the employee listen to your question? Please add your comments.
13. [In-person visit, Phone, Chat] The employee you asked your question of...
Did not ask any follow-up questions.
Did ask follow-up questions but still didn't seem to understand what I need.
Did ask follow-up questions until they understood my inquiry.
Follow-up questions were unnecessary.
14. [In-person visit, Phone, Chat] Did you feel the employee understood your question? Please add your comments.
15. Did the employee use library jargon or technical language when they were helping you?
Yes
No
16. Please comment on what you did or did not understand.
17. [In-person visit] Did the employee show interest in the interaction? (e.g., giving you their complete attention, maintaining eye contact, and nodding in understanding)
Yes
No
18. Did you feel you were treated respectfully?

19. Yes, the employee treated me with respect.
20. No, the employee treated me with disrespect.
21. Please comment on how you were treated.
22. If the employee was unable to fully assist you, were you provided other options for meeting your needs or referred to the appropriate sources?
Yes
No
23. Not applicable (The employee was able to fully assist me.)
24. (If No or N/A to Q19) Did the employee confirm that you got the information you needed? (e.g., “Does that answer your question?” or “Is there anything else I can help you with?”)
Yes
No
25. Not applicable
26. (If Yes to Q19) Which of the following best describes the option you were given for meeting your needs?
Referred to a website
Given a handout
Shown a display or sign in the building
Referred to a desk
Referred to a person
Other (please specify)
27. Are there any additional observations about your experience that you would like to share?