Evaluating Customer Experience through Customer Journey Mapping and Service Blueprinting at Edmonton Public Library: An Exploratory Study

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Keywords

customer journey mapping; public libraries; customer experience; customer evaluation; service blueprinting; ethnography

Abstract

This paper presents an overview of the design, implementation, and findings of an exploratory project to evaluate customer experience at Edmonton Public Library (EPL). The EPL Intern Librarian Project had three objectives: to establish the current state of customer experience at EPL, identify pain points, and develop recommendations for improvement. The study used the ethnographic methods of Customer Journey Mapping and Service Blueprinting to directly engage with customers and staff to produce visual documents reflecting respondents' customer experience at EPL. In order to gather data for Customer Journey Maps, participants were simultaneously observed and interviewed as they completed different activities in the library. During the creation of the Journey Maps, pain points were identified. Interactive focus groups and interviews with EPL staff members unpacked pain points and informed the creation of corresponding Service Blueprints. Based on the findings, a number of recommendations were proposed to improve the customer experience including enhanced digital wayfinding,

clearly identifiable catalogue stations, and revised website FAQs. Suggestions for applying these methods include the use of multiple techniques for participant recruitment, focusing on specific library activities, and actively promoting the project internally.

Introduction

In order to provide effective customer experience in libraries, it is beneficial to engage directly with customers for feedback. Customer experience is the sum of all the interactions that a customer will have with an organization. When a customer enters a digital or physical space, their experience is made up of multiple points of interaction that can be positive or painful. A point of interaction can range from a tweet on Twitter to using the library catalogue to locate a physical book (Datig, 2015). Research can focus on digital or physical points or a combination of both mediums.

Library organizations use a variety of terms to refer to the people who use their services and different connotations are linked to specific terms. We use "customer" in this article since that is the term used in EPL's documentation and organizational culture.

Librarians need real-time information about what customers like, dislike, and desire across different interaction points (Smith & Milligan, 2015). While surveys are relatively easy to implement and have the potential to collect many responses, they are inadequate in evaluating the emotions and thought processes of customers (Ippoliti, Nykolaiszyn, & German, 2017). Libraries also gather and report statistics about their collections, funds, and staff, but this quantitative data is predominantly focused on finances and workloads rather than a holistic understanding of library services (Hernon, Altman, & Dugan, 2015). As such, these metrics do not always represent a library's performance from the customer's perspective (Hernon, Altman, & Dugan, 2015). Many aspects of information delivery are intangible and must be evaluated in more direct ways (Hernon & Altman, 2010). Customer experience, like service quality, cannot always be counted precisely or summarized as a quote, percentage, or ratio.

Across North America, public libraries face significant challenges in redesigning collections, programs, and services to align with diverse customer expectations and needs. Located in Edmonton, Alberta, EPL serves a dynamic community of over 1,321,426 individuals (Statistics Canada, 2019) from 17 branches throughout the city. In May 2017, we were hired as the Customer Experience Intern Librarians to conduct a 12-month study to address three objectives:

1. Establish the current state of customer experience at EPL
2. Identify pain points that occur during different digital and physical library activities
3. Develop actionable recommendations for service improvement

Although EPL evaluates customer satisfaction quantitatively and qualitatively through semi-annual customer satisfaction surveys, secret shoppers, and the regular collection of customer comment forms, the actual experiences, mental processes, and emotions of EPL customers had not been studied. For this project it was important to work directly

with customers to understand their experiences using different library collections, services, and programs. Incorporating staff perspectives was also essential to understand their view of the customer experience. This information was gathered using Customer Journey Mapping (CJM) and Service Blueprinting (SB). The use of CJM and SB are relatively recent within libraries. This paper aims to demonstrate how these methods can be effectively applied within a public library system by presenting findings from the EPL Intern Librarian Project. The project's reports, *Looking at Customer Experience from the Outside-In* and *Looking at the Customer Experience from the Inside-Out,* are available from the EPL website under News and Publications (Mucz & Gareau-Brennan, 2018a, 2018b).

Literature Review

We conducted a review of available research and examples of CJM and SB in order to better understand how to apply these methods and to create standardized templates to illustrate participant customers' experiences.

Ethnography

Ethnographic research methods encompass a broad range of techniques drawn from anthropology and sociology that involve customers being studied or included in the design process (Ippoliti, Nykolaiszyn, & German, 2017). Ethnographic methods have been used in a variety of fields including psychology, business, and health sciences (Goodman, 2011). Ethnography can be applied to investigate specific research questions with the goal of creating beneficial changes (Wilson, 2015). The application of an ethnographic approach in library environments is relatively recent but growing, predominantly in academic library settings (Goodman, 2011; Hursh & Avenarius, 2013; Wilson, 2015). The data collection methods used by Goodman, Hursh, Avenarius, and Wilson included focus groups, individual interviews, observations, and fieldwork. Interviews are often semi-structured with a set of questions to allow for flexibility (Datig, 2015). Ethnographic observation involves watching customers in their natural environment rather than creating an artificial space (Datig, 2015). Data from observations supplements the interviews. Khoo, Rozaklis, and Hall provided the most comprehensive survey of the use of ethnographic methods in libraries. Completed in 2012, the survey has established an increase in the use of ethnographic methods in libraries and the effective use of this emerging approach to inform organizational planning (Khoo, Rozaklis, & Hall, 2012).

The value of ethnographic research is its ability to provide rich data about individual customer interactions. Ethnography is conducive to exploratory research as it may reveal unknown issues and insights into customer behaviours (Wilson, 2015). Libraries and information systems are ideal environments for this approach (Goodman, 2011). Through a combination of observations and interviews, researchers can establish an understanding of how customers work and the challenges they face. Customer Journey Mapping and Service Blueprinting are two distinct ethnographic techniques that can be used collectively to evaluate customer experience.

Customer Journey Mapping

CJM is a tool to understand customer behaviours and motivations that originated within market research during the 1960s and 1970s (Crosier & Handford, 2012). Organizations in healthcare, business, and technology have used Journey Mapping for product development and service design (Connaway & Radford, 2016). CJM involves plotting out the different steps a customer takes when trying to complete an activity (Datig, 2015). Developing and analyzing CJMs provides librarians with insights into how customers accomplish goals and how the library is helping or detracting from the process (Datig, 2015). The technique directly engages customers by interviewing them about how they felt and observing what happened at each stage of the journey.

While secret shoppers and focus groups can be effective tools for gathering information about customers' experiences and emotional responses, neither approach specifically addresses how customers respond to products and services at different stages of their journey (Crosier & Handford, 2012). CJMs can illustrate areas where improvements can be made, demonstrate the complexity of a library ecosystem, and highlight the integration of various library departments (Marquez, Downey, & Clement, 2015). While CJM techniques have been used sparingly within public library settings, the literature review demonstrates that they represent an effective tool for unpacking the experience of library customers.

The design of this study was heavily influenced by CJM research completed within library environments. Instead of developing and applying different customer personas, these studies focused on observing and engaging participants as they complete different library activities (Andrews & Eade, 2013; Brahme, Gabriel, & Stenis, 2016; Datig, 2015; Marquez, Downey, & Clement, 2015; Samson, Granath, & Alger, 2017). Though small in number, they reveal interesting insights about how CJM can be applied without the use of personas. As the focus of this project was to identify pain points, activity-based CJMs were chosen. These CJMs were strategically designed to visually demonstrate where pain points occurred in the customer experience and to inform discussions about potential improvements.

Service Blueprints

SB originated from the business sector in 1984 and is a customer-centered process for analyzing and improving services (Pretlow & Sobel, 2015). It has continued to evolve as an approach for addressing challenges in service design, particularly in relation to customer experience (Bitner, Ostrom, & Morgan, 2008). The process is popular in other industries, with numerous articles emerging from the business and nonprofit sectors (Pretlow & Sobel, 2015). A SB is a detailed diagram of internal service processes, allowing for an analysis of the customer experience and staff influence at each stage of service delivery (Baranova, Morrison, & Mutton, 2011). The Blueprints are more than a visual representation of a service: their main purpose is to create a solid foundation for potential improvements (Baranova, Morrison, & Mutton, 2011).

Blueprinting is frequently presented as a component of larger customer service improvement strategies (Pretlow & Sobel, 2015). In contrast to other process-oriented design techniques, SBs are customer-focused, allowing the visualization of the service process, points of customer contact, and the physical evidence associated with services from the customer's perspective (Bitner, Ostrom, & Morgan, 2008). Few studies focus directly on library environments, but they demonstrate how Blueprinting can be effectively applied within different contexts (Maharana & Chandra Panda, 2001; Radnor, Osborne, Kinder, & Mutton, 2014). A SB provides employees with an overview of the entire service process so they can see how their roles fit into the integrated whole. Blueprinting establishes a common point of discussion for service development or improvement (Bitner, Ostrom, & Morgan, 2008). The process of Blueprinting and the visual documents generate insights into various roles, policies, and interdependencies throughout the whole organization.

Methods

The project was structured into two distinct stages: Mapping and Blueprinting. The Journey Mapping stage took place from August to November 2017 and addressed the first two project objectives. Service Blueprinting was conducted between November 2017 and February 2018 and was used to unpack pain points to establish dominant concepts. Recommendations were developed in March and April of 2018.

Customer Journey Mapping

Participant Recruitment

We determined that 40 participants was appropriate for the Journey Mapping stage of the project based on project time constraints, the scale of EPL's services, and the number of participants from other Mapping studies. To facilitate direct recruitment, we surveyed customers at five branches. We approached customers to inform them about the customer experience study and asked if they had three minutes to answer the following questions:

- What brings you to the library today?
- What else do you do at the library?
- What is one thing you would change about the library?

If customers were responsive to the survey they were invited to participate in a data collection session called a Customer Experience Safari. EPL does not have a research ethics review process for internal research involving the use of human participants. However, we are aware of ethical considerations related to this research and tried to protect and inform participants through an information letter and consent form. Each participant received an information letter and signed a consent form prior to the start of each Customer Experience Safari. The information letter established that they could stop the Customer Experience Safari at any time and that their responses would remain confidential and anonymous. A copy of the information letter and consent form is

included in Appendix A. In total, 75 surveys were collected with 12 participants recruited for the Customer Experience Safaris.

To recruit additional participants a social media campaign was created, including posts on Twitter and Facebook, and promotional content was distributed internally through the EPL Volunteer newsletter and staff website. We also drew on personal, professional, and academic networks to recruit. Due to the use of this sampling approach, the results may be biased towards positive attitudes regarding EPL. The recruitment process was completed at the end of September 2017 with 45 participants. The participants completed 41 Customer Experience Safaris across 12 different branches of EPL. Nine Customer Experience Safaris had more than one participant (i.e., families with children).

Data Collection

Customer Experience Safaris were the primary method of data collection for the CJM stage of this study. Customer Experience Safaris involved individuals or groups and ranged from 30 minutes to two hours. A copy of the data collection form is included in Appendix B. Each Customer Experience Safari consisted of three parts: a library tour led by participants, the completion of different digital and physical library activities, and a short debrief to conclude the Safari. Every Customer Experience Safari began with an overview of the project before participants took us on a tour of the physical library environment. During the tour participants were encouraged to highlight what was important to them in the library, including services, collections, and areas in the physical space. While the focus of the conversation was gently guided, it remained flexible to allow customers to express their opinions and ideas. These tours provided a wealth of supplemental qualitative data as participants referred to numerous library experiences and interactions. Data from the tours were incorporated into the CJM as supplemental data. The tour also served to build rapport with the participants and allowed them to get comfortable being interviewed and observed in the library.

After the tour concluded, participants were asked to complete common library activities while we recorded the interactions and took observational notes on what they said and did. Participants were encouraged to voice their feelings while narrating their actions. We clarified participants' responses by asking follow-up questions. Activities were assigned based on the needs and goals expressed by each participant at the start of the Customer Experience Safari. The checklist used to structure each Customer Experience Safari is included in Appendix C. The Customer Experience Safari ended with a short debrief to allow the participant to ask questions about the project. Both of us were present during each Customer Experience Safari to ensure consistency in the data collection. Library branch staff were briefed before the Customer Experience Safaris to ignore us and interact with participants as they would normally. During customer-staff interactions we left the recording device with participants and moved away to allow for a more natural interaction.

During the Customer Experience Safaris, participants were asked to complete one or more activities (Table 1). A combination of digital and physical activities were identified in discussion with the project supervisor in order to encompass a broad range that

included interactions with staff, services, and the physical/digital collection. The difference in the number of times each activity was completed was a result of time constraints and the expressed preferences of participants.

Table 1

Customer Experience Safari activities

Activity	Description	Number of Times Completed
Borrowing a Digital Item	The participant found and checked out or streamed a digital item of their choosing from the library's website on their choice of device.	7
Borrowing a Physical Item	The participant located and checked out a physical item of their choosing from an EPL branch.	29
Acquiring a Membership	The participant was completely new to EPL and signed up for an EPL membership.	9
Public Computer Use	The participant used a public computer to access the internet or documents, to print, or to play games.	14
Attending an Early Literacy Program	The participants and their children took part in a Sing, Sign, Laugh & Learn program at EPL. For this activity we followed families throughout their entire journey attending the program.	3
Family Visit to the Library	Participant groups consisting of parents and their children visited the library. They were observed using the library space and collections.	5
Library Chat	Participants asked a question to the library chat service through a public computer.	7
Website Use (on Public Computer, Phone, or Tablet)	Participants used the EPL website from a public EPL computer or in an internet browser app on their phone or tablet.	17

Analysis

Following the Customer Experience Safaris the observational notes were transcribed and aggregated using NVivo, a qualitative data analysis software. Two rounds of coding were completed for each transcript. The first round was to determine the stage of the customer journey. This framework was based on categories in Nicholas J. Webb's book

What Customers Crave: How to Create Relevant and Memorable Experiences at Every Touchpoint (2017)*.* They were defined as:

- Pre-Touch: Interactions that happen before directly starting the journey with the library.
- First Touch: Initial interactions that participants have with the library.
- Core Touch: Interactions that take place throughout the journey.
- Last Touch: Final interactions with the library before the end of the journey.
- In-Touch: Interactions that take place after the journey has ended.

A final round of coding was undertaken using open and descriptive codes to establish general themes and identify points of interaction. After one of us completed two rounds of coding, the other person coded random transcripts to ensure coding consistency. The coding was extremely similar, with only subtle differences in the choice of vocabulary. We had follow-up discussions to develop consistent terminology.

To create the CJMs we developed a template (Figure 1) using fields that were perceived to be most relevant to the Customer Experience Safari data (Table 2).
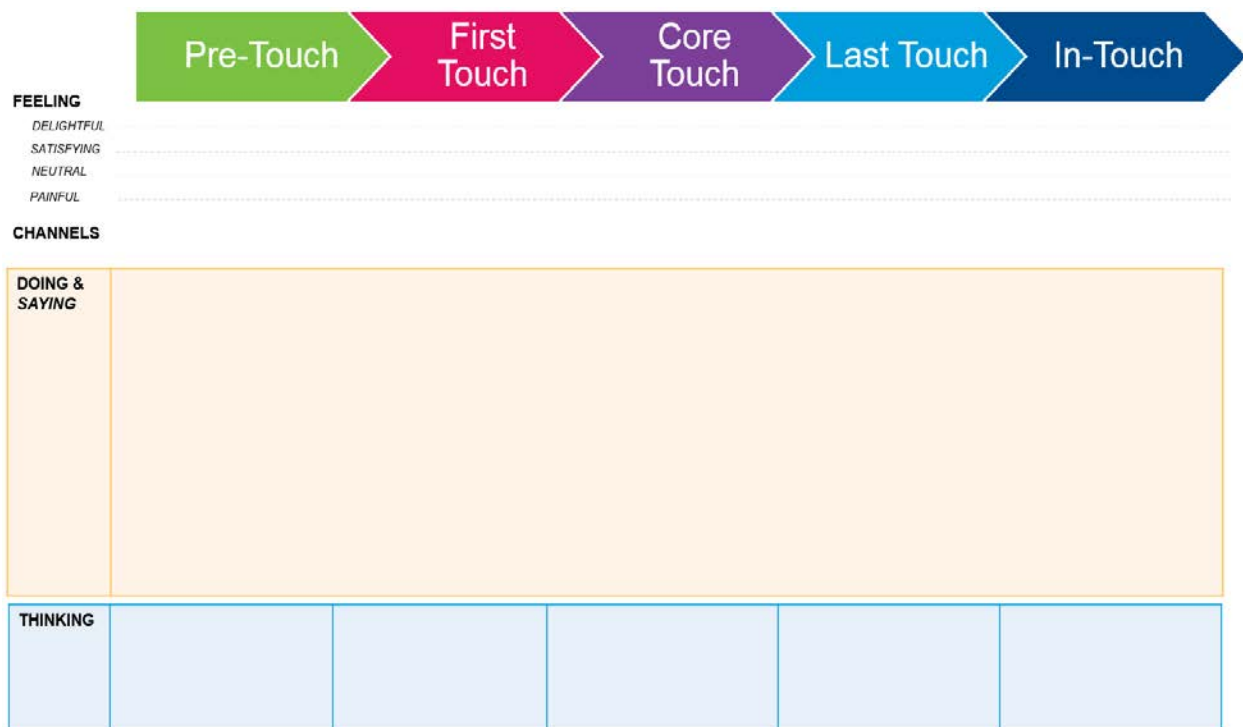

Figure 1. Customer Journey Map template

Table 2

Customer Journey Map components

Component	Description
The steps on the journey	Pre-Touch, First Touch, Core Touch, Last Touch, and In-Touch
What the customer is feeling in response to the interaction point, with delightful being the most ideal response and painful being the least ideal.	Delightful: This point surprises, delights, and makes a customer's day. These go above and beyond a customer's expectations. Satisfying: This point meets a customer's expectation and satisfies their desires or needs. Neutral: This point is neither good nor bad for the customer. Painful: The customer's expectations are not met.
Channels	Visualizes the different channels customers use or come across at each stage of the journey. A channel is the medium of interaction between a customer and the organization. Possible channels include the library website, branch signage, library catalogue, or a staff member.
Doing and Saying	A description of what customers are doing or quotes from customers that sum up their experience on each stage.
Thinking	A description of what a customer is expecting from this stage of the journey.

Service Blueprints

While the creation of the CJMs successfully identified pain points, additional research through Service Blueprinting was necessary. SBs act as a cross-section of the customer experience, serving as comprehensive lists of what impacts every CJM point of interaction (Bitner, Ostrom, & Morgan, 2008). We wanted to engage with staff to unpack pain points and develop recommendations to improve the customer experience at EPL.

Participant recruitment

Staff were recruited to participate in focus groups through the internal EPL website and staff newsletter. To limit the scope of focus groups, recruitment was directed at branch level staff and branch managers. This target population constituted EPL staff who work directly with customers or who supervise branch staff and play a key role in the day-to-day operations of EPL. Verbal consent to participate was solicited from the participants at the start of each focus group and interview. Participants were informed that they could stop at any time if they became uncomfortable. In total, 43 staff participated in the focus groups.

For the semi-structured interviews staff within different departments of EPL were contacted directly through email based on specific pain points that related to their area of expertise. Staff from Learning and Development, IT, Web Services, Fund Development, Marketing and Communication, Collection Management and Access, Digital Literacy Initiatives, and the Makerspace participated. We held 17 interviews with 27 library staff in conjunction with the focus groups from December 2017 to February 2018. Half of the interviews were one-on-one, and the other half had multiple department members participate.

Data collection

We collected data for the SBs using a variety of techniques including interactive staff focus groups, unstructured interviews with internal stakeholders, and referencing organizational documents, reports, and practices. The CJMs were used as a guide to conduct five 90-minute focus group sessions between December 2017 and January 2018. The main advantage of focus groups is the opportunity to observe multiple discussions on a topic in a limited time period (Connaway & Radford, 2016). Unlike other methods, focus groups benefit from interactions between participants, which produces rich data that provides a detailed understanding of participants' experiences (Connaway & Radford, 2016). One week before, focus group participants were sent an introductory email with meeting materials. For an example of the agenda, see Appendix D. Each session began with an introduction to the select CJMs and an explanation of how to read them. The participants analyzed the CJMs in pairs or groups of three and then shared their observations with the rest of the participants.

We collected observational notes and audio recorded the sharing sessions. The audio recordings were transcribed and the notes consolidated. In addition, participants were asked to complete an anonymous survey the day after their focus group session via QuestionPro. The survey included the following questions: 1) What was the most important pain point to fix and why? 2) After the focus groups, what new ideas did you have in terms of addressing pain points? 3) Do you have any additional ideas or suggestions to share? The survey received 26 responses, which was a 61% completion rate. These were consolidated into an Excel document, coded based on what pain points were referenced, and incorporated into the SB dataset.

Data was also collected for the SBs through unstructured interviews. Interviews are effective when there is a need to gather perceptions, opinions, and accounts of experience from specific individuals (Connaway & Radford, 2016). These were done to gain a better understanding of relevant projects being undertaken within the organization, recommendations for pain points, and potential organizational limitations. Before each interview, we created and sent out meeting materials consisting of an agenda, how to read the CJMs, CJMs relevant to the interviewees' area of expertise, and a breakdown of corresponding pain points. We used the CJMs as a way to initiate a conversation with the staff, focusing on pain points and any ideas they had for improvement. To record the data from these unstructured interviews we each took notes, which were consolidated and referred to while creating the SBs.

In order to understand what influenced EPL's existing customer experience practices, we also reviewed and made note of supporting EPL documents and previous EPL research. These documents included library practices, procedures, and reports relevant to specific pain points. Previous intern reports and the most recent Customer Satisfaction Survey were also reviewed.

The data collection period was kept relatively short in order to gather as much information as possible while ensuring that project deadlines were maintained. While rich data was collected, the participant group was too limited in size to provide generalizable results reflecting the broader EPL community. Characteristics and perceptions of staff participants may not reflect all staff. Despite this, the techniques were effective in unpacking pain points that occur at EPL and identifying potential solutions that could be explored further.

Analysis

The first step in creating the SBs was developing a template that would clearly illustrate the deconstruction of each pain point. While a typical SB may include all steps of the journey, a concept SB depicts only the basic steps of the entire activity (Bitner, Ostrom, & Morgan, 2008). We modified the structure of the concept SBs to focus on pain points and ignore the positive aspects of the journey. As a result, the components for the SB template include only those that contribute to a negative customer experience. The SB template (Figure 2) includes five components (Table 3). Each SB has as many columns as pain points. Some paint points were aggregated if they were deemed similar. A SB was created for each activity listed in Table 1.
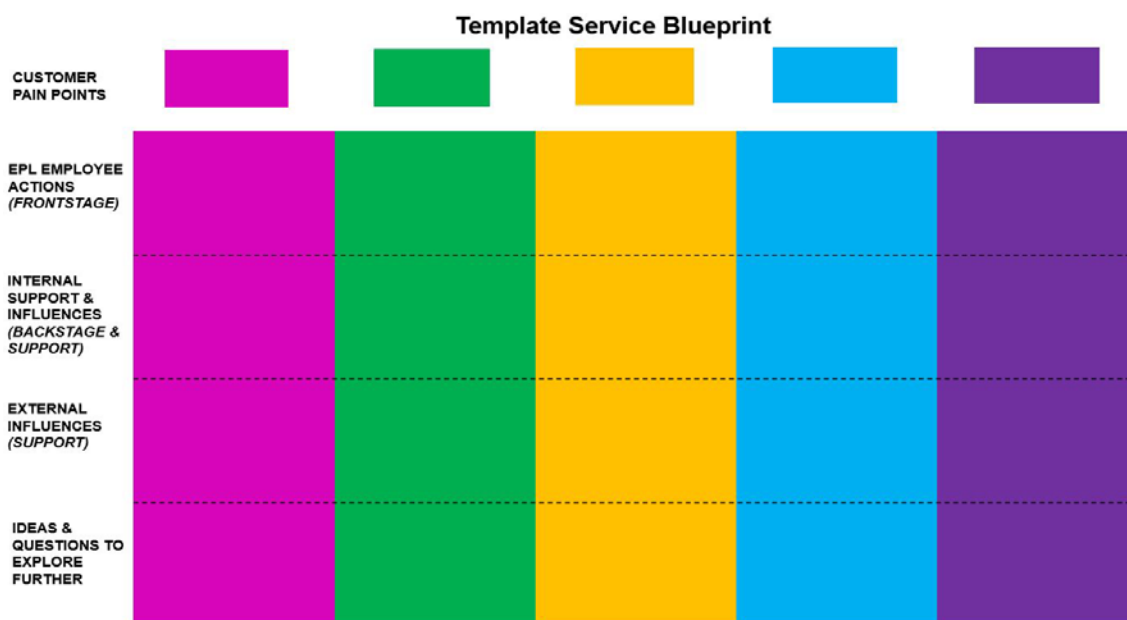

Figure 2. Service Blueprint template

Table 3

Service Blueprint Components

Component	Description
Customer Pain Points	The pain points from a specific CJM were consolidated into a manageable number of pain points per SB based on their content.
Employee Actions (Front Stage)	This section consists of the employee actions that the customers can observe directly and that contribute to the pain point.
Internal Support and Influences	This section consists of specific EPL practices, procedures, projects, and workflows that influence the employee actions and contribute to the pain point.
External Influences (Outside the Organization)	This section consists of external influences on EPL or/and their customers that contribute to the pain point. Many of the external influences are conditions that EPL does not have control over including BiblioCommons' management of the catalogue interface and customer expectations related to website content and search functionality.
Ideas and Questions to Explore Further	This section consolidates ideas and questions presented in the focus groups and interviews. These comments were used as a starting point to explore potential recommendations.

In total, eight SBs were created based on the Customer Experience Safari activities.

Findings

The findings are structured into three sections focusing on the painful and positive points identified through the creation of Journey Maps, dominant concepts identified from the SBs, and subsequent recommendations.

Customer Journey Maps

By looking at each Journey Map we gained key insights into how customer participants utilize the services, collections, and programs offered by EPL and where pain points occur. The Membership CJM in Figure 3 serves as an example of how a CJM is laid out.
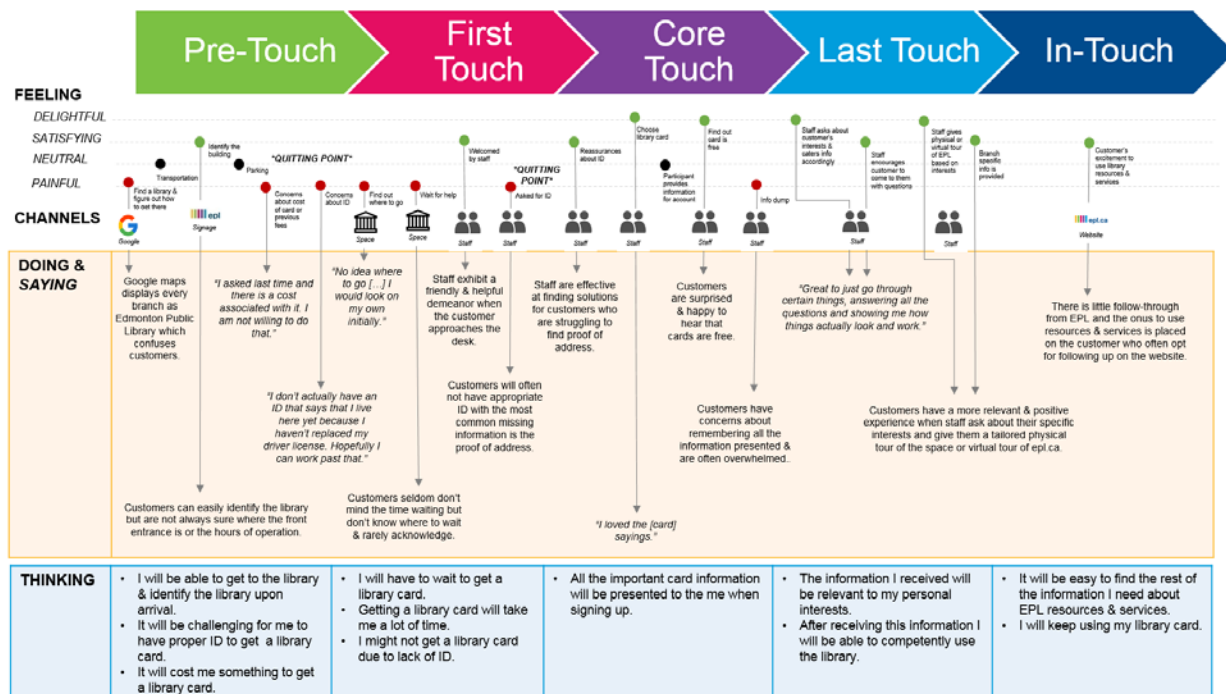
Figure 3. Membership Customer Journey Map

Aggregated data from nine participants who received an EPL membership during their Customer Experience Safari informed the development of the Membership CJM. By analyzing the completed Membership Journey Map we identified seven pain points (red dots) and ten positive ones (green dots). Points of pain centered on:

- Concerns about having proper ID with proof of address. This is a quitting point, especially if a participant has made multiple attempts.
- Locating a library branch and knowing where to go upon entering. Google Maps can be problematic because the branch name does not appear; it is listed as EPL.
- The length of the membership interaction, which can be complicated by the excessive information provided by staff. Participants desire information that is relevant to them and their needs rather than an overview of everything EPL provides.

In contrast, the positive points focused on:

- Staff effectively finding solutions to proper ID. The ability to mail a postcard with the participant's address stood out.
- Choosing a library card colour, the card being free, and personalized information provided by staff.
- Branch specific information as this allows participants to become familiar with the physical space.

Figure 4 provides a breakdown of the feelings participants expressed towards each library activity.
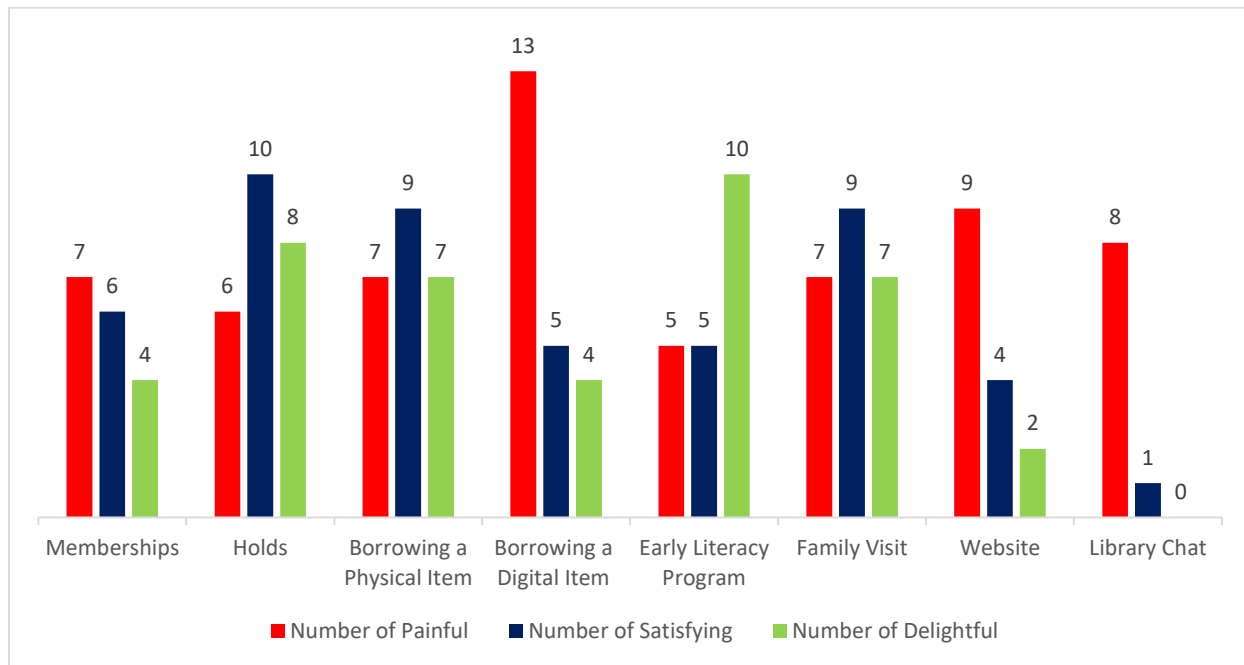

Figure 4. Feelings of participants at each Journey Map Point

The following paragraphs provide brief summaries for each activity with a focus on pain points and aspects of the experience that worked effectively.

Acquiring a Membership

When acquiring a membership new customers did not always understand the scope of what the library offered and how this related to their own information needs. In response to staff probing about the participants' actual goals, it became clear that participants desired more targeted information that addressed what they wanted to achieve rather than a broad overview of everything. The more targeted the information that was provided, the more positive the customer journey.

Placing a Hold

The hold activity generally met the expectations of participants. They expected a service that was timely, accessible and relevant to their information needs. The hold service is an opportunity to acquire library resources from across the system without having to travel to other branches. The experience started and ended with positive points, denoting the ease at which participants discovered resources and managed their holds.

Borrowing a Physical Item

The majority of points involved when borrowing a physical item were either Satisfying or Delightful, making it a positive activity for participants overall. Participant expectations

14

for this activity were influenced by their previous library experiences. A positive outcome was based on the participant locating and checking out a desired item. The experience of searching is highly dependent on effective search skills. Participants unfamiliar with the library catalogue and classification system had greater difficulty than those with more experience.

Borrowing a Digital Item

The decision to borrow digital material was generally the second choice for participants as they preferred the attributes of physical items. Digital content represents an effective solution for participants who lack mobility and strength for physical items and for those who desire immediate access. Once participants engaged with the digital content, they expressed excitement at the diversity of material. This positivity diminished, however, once they tried to access their desired content. Acquiring an item digitally has almost doubled (13) the number of pain points than a physical item acquisition (7). This can be attributed to the number of steps to access specific digital content and the need to create multiple user names and passwords for each vendor platform.

Attending an Early Literacy Program and Visiting the Library as a Family

The majority of the points for the Early Literacy Program were either Delightful or Satisfying, with half of all points being Delightful. Early Literacy Programs provide entertainment and value in a comfortable and community-oriented setting. Outside of the program parents have concerns over technology use and its value for their children. Family visits represent the first exposure to the library for many individuals and positive experiences have a significant impact on their long-term library use. Crossover existed between the Family Visit and Early Literacy Program CJM, but it was necessary to create a separate map to present additional data. Overall, parents felt comfortable and safe in the library with their children.

Using the Library Website

Participants use the website for a variety of reasons, including information seeking, item searching, troubleshooting, and reviewing upcoming events. The most significant pain points for the website concerned effective searching: participants consistently struggled to format and structure searches that retrieved relevant information. Frequent use and attention to detail resulted in more productive searches. Participants expressed a preference for a more intuitive website design that would limit the need for staff assistance.

Library Chat

With over 80% of the points defined as painful, the Library Chat did not meet the needs and expectations of participants. The initial points demonstrated that it was difficult to locate and identify the chat service. Once participants engaged the chat service they quickly became frustrated with the lack of immediate and timely responses. Additional questions from staff only increased the length of time before the information need was addressed. While these may be unavoidable as staff attempt to clarify the customer's

information need, observations from Customer Experience Safaris suggest that personalized questions have the potential to lead to more effective interactions.

Service Blueprints

The pain points of each Journey Map were aggregated by activity to inform the creation of eight corresponding SBs. The SBs provided a different perspective and allowed us to better understand how each pain point was occurring and why. An example of a complete SB is shown in Figure 5.

Figure 5. Membership Service Blueprint

Though the sample size was small, five dominant concepts were identified that negatively influence the customer experience at EPL.

Lack of Service Personalization

Personalization can be defined as the way in which information, resources and services are designed to match the unique needs of a specific customer or community (Ferran, Mor, & Minguillon, 2005). Effective personalization creates more tailored, customer-oriented interactions that help and enhance the process of accessing EPL programs, collections, and services. A lack of personalization can overwhelm a customer and limit their self-sufficiency. Examples at EPL include the presentation of digital content such as ebooks or the amount of information discussed during the membership process. Customers are used to a higher standard of personalization based on experiences with other industries. Examples from retail include targeted digital and physical content, account customization, and the emphasis of particular services, programs, and collections based on the actions of the customer.

Limited Use of Technology for Accessibility and Wayfinding in Physical Spaces

Ensuring effective accessibility of content and wayfinding of digital and physical space is important for any public library. Simplified directional signage and easily identifiable catalogue stations support intuitive and independent customer use (Warren & Epp, 2016). The lack of technology used in wayfinding makes it difficult to locate specific items in the stacks. Catalogue stations are not clearly differentiated from standard computer workstations. Technological solutions are available through the use of Bluetooth wireless capabilities, interactive sign displays, and integrated physical connectivity with the EPL app. Examples of potential options include electronic ticketing, digital maps, integrated app, and website.

Customer's Dependence on Staff for Navigating and Accessing Digital Content

EPL customers have a broad range of digital literacy skills, and those with lower proficiency depend on staff to assist them with accessing and becoming familiar with digital resources. As a result, this can limit the attention paid to other customers. Opportunities exist to provide instruction through other methods to allow self-directed learning and exploration such as online tutorials, interactive FAQs, and a proactive library chat. Vendor websites are also difficult for customers to navigate due to different logins, interfaces, and search functions such as hoopla vs Overdrive vs Recorded Books. Organizational practices and vendor constraints also restrict how digital content is displayed. The current format at EPL can lead to information overload for customers.

Front-Line Staff's Perceptions of Workload

Front-line staff can become overwhelmed when large queues of customers form or when an interaction demands dedicated attention. While this perception of being overwhelmed does not always reflect reality, it can detract from service quality and lead to more rushed customer interactions that may lack context.

Limited Engagement of Front-Line Staff with Customers

Front-line staff are not consistently accessible when customers need them. Examples include not always being available to help parents in the children's section, a lack of roving, and not anticipating customer needs in the stacks. Ideally, all staff would have up-to-date knowledge of the latest collection, service, technology, and program information at EPL in order to engage and provide the highest quality customer experience. The best form of customer engagement feels authentic for each individual while avoiding a one-size-fits-all format (Cook, 2015).

Discussion

On a broad level, CJMs allowed us to gain a better understanding of the complexity of the EPL ecosystem through a visually engaging format. More precisely, each map identifies where pain points occurred for participants. SB subsequently informed the development of recommendations for improvement. While the findings were produced

from a small sample size with a recruitment bias, the study was intended to be exploratory. By incorporating the emotions and thought processes of actual customers we were able to move beyond common quantitative library data. The job of customer experience research is never complete and there are always improvements to be made in some aspect of the experience. Customer behaviours and expectations will continue to change as new tools and technologies are developed by libraries and related organizations. Effectively applying customer experience research involves finding a balance between the library's goals and the opinions of its staff and customers.

A combination of CJM and SB establishes and reinforces a customer-centered focus and helps all levels of library staff understand the need to adapt in order to respond to ever-changing behaviours and information needs of customers. Collecting data from customers directly addresses a common issue of library staff basing policies, services, and collection development on their own expectations of what customers need (Samson, Granath, & Alger, 2017). Even an ideal library status quo leaves room for enhancement and fine-tuning.

Front-line staff and branch managers interact with customers daily and have anecdotal data of their wants and needs. However, by creating CJMs, evidence can be structured into visually engaging documents. This allows for concise and holistic communication to all staff members. CJMs also allow for the organization and presentation of customers' experiences to senior management who are more removed from the everyday library branch context. By using a highly visual medium, complex customer experience situations were clearly communicated in a way that staff could quickly absorb the entire customer experience picture.

After conducting this study we received comments from staff regarding how these visual documents allowed for meaningful conversations between staff and supervisors about effective customer experience. This included discussions about using the CJMs to examine past customer incidents, and to preemptively think of ways of decreasing pain points. For new employee orientation, the Journey Maps help provide a snapshot of different customer journeys at EPL, allowing for improved empathy and understanding of customers' perspectives. These conversations highlight the practical potential that Journey Mapping and Service Blueprinting have beyond serving as an effective a research method.

Recommendations to Improve the Customer Experience

After identifying the five dominant concepts that negatively influence the customer experience at EPL, we created a plan to develop recommendations to improve the customer experience. Eighteen proposed recommendations were identified and refined. While the findings were derived from a small sample size with a recruitment bias and were not generalizable, both minor and more involved recommendations were proposed to improve different pain points. The recommendations included changes in relation to staff onboarding and training to emphasize customer experience, increased educational opportunities for children and their parents to learn about the value of technology, making catalogue stations more identifiable, redesigning website FAQs and library chat

to improve accessibility, and the use of CJMs for staff training. For more complicated pain points such as those related to vendor-controlled content or those with significant logistical constraints such as the number of holds on an item and topic catalogue searching, the findings provide a starting point for future evaluation or discussion.

These recommendations represent a foundation for the improvement of collections, programs, and services at EPL. They serve as inspiration for more significant changes, incorporating branch considerations, and broader community needs including those of newcomers, families, and those experiencing homelessness. Customer experience expectations can be reinforced through monthly departmental and staff meetings to ensure that all front-line staff understand their responsibilities. Not all staff have strong people skills and opportunities exist to improve training to ensure all staff provide an effective customer experience. Staffing and front-line practices should allow for different levels of customer engagement to ensure that each individual receives appropriate service regardless of the number of customers. No recommendation stands out in terms of dramatically changing existing services, collections, and organizational policies. However, this possibly reflects the relatively effective customer experience currently provided by EPL.

Limitations

Creating CJMs is a flexible method for evaluating a library activity but, like any qualitative technique, limitations exist. Concerns related to validity and reliability are common with this methodology. Participants were not always able to concisely articulate their emotions and thought processes during the Customer Experience Safaris. As a result, CJM cannot produce replicable results. Our presence in the library setting may have influenced customer responses and staff interactions. Important considerations were given to identifying and managing the impact of personal biases on observations and data interpretations but these may still exist.

Limitations related to participant recruitment are evident in this study, especially in relation to customer participants. However, it is not unusual to have limited participation by library customers in more elaborate studies (Connaway & Radford, 2016). Due to the nature of the 12-month internship program, a two-month recruitment period of August and September was established in order to recruit as many participants as possible within the timeline. As a result, certain demographic groups were not captured in this study. Of the 45 research participants, 19 were friends and family of EPL staff. Data from the Customer Experience Safaris may not be generalizable to the EPL customer base due to this data bias and the small sample size. Select customer demographics were also not comprehensively captured. Vulnerable populations including those experiencing homelessness and individuals with physical and mental disabilities were difficult to recruit.

SB can be a silo-breaking tool, allowing staff to gain a better understanding of the entire process impacting an activity or specific point. There is always a danger with this approach of not representing subtleties, outliers, and changing customer expectations and preferences.

Areas for Future Study

This study establishes many opportunities for future research through the application of a combination of CJM and SB methods. Within the organization, additional research could be done around specific EPL customer demographics to better understand the experience of different groups, such as Indigenous customers, those experiencing homelessness, newcomers, families, or young adults. Targeted recruitment would be necessary to develop a strong participant group of the desired demographic. Focus could also be placed on specific activities, services, and programs, including the library website, app, chat, or select branches. Internal customer experience research could be conducted to map how effective EPL is in meeting the customer needs of internal staff.

The methods used in this study can be applied to other organizations to evaluate how customers are using services, programs, and collections. By using the EPL study as a framework, other libraries can adopt and modify the techniques to scale their own research. This type of information would be valuable in addressing common pain points across multiple library systems and sharing potential recommendations. It is hoped that this article promotes this approach in a way that it is accessible for other libraries.

Conclusion

This exploratory study allowed us to interact with a range of EPL customers and staff. By engaging with these groups directly we were able to gain a better understanding of how customers complete different library activities and how staff influence and perceive each pain point. We were able to observe participants and ask them targeted questions about what they were thinking, feeling, and doing at each stage of their journey. The creation of CJM and SB had an added benefit of providing a visual representation that staff can review internally as a reminder about effective customer experience and where pain points occur. The result of this project was a series of recommendations for EPL structured around their 5-year strategic plan. These recommendations included restructuring physical library spaces, enhanced digital wayfinding, clearly identifiable catalogue stations, and revised website FAQs.

The recommendations demonstrate the effectiveness of combining CJM and SB to evaluate, analyze, and improve library service. Whether used in a stand-alone study or incorporated into ongoing evaluation practices they allow for a discussion about how customers actually use the library and the ways an organization influences the experience. While the research focused exclusively on EPL, the methods used contribute towards a larger understanding of how to effectively evaluate customer experience at a public library.

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Appendix A. Customer Experience Safari Information Letter and Consent Form

epl EDMONTON PUBLIC LIBRARY

Customer Experience Letter of Information

Dear Participant or Guardian,

Background
You are invited to participate in a customer experience research study. This study will assist EPL in improving the experience for customers.

Purpose
This study is being conducted to learn more about the EPL customer experience, what is working well and what could be better.

Study Procedures
If you agree to participate, you will be asked to complete a Customer Experience Safari that will take 1 to 2 hours to complete. As you complete the Safari, you will be asked to do activities in the library. One researcher will follow you and ask questions which will be audio recorded. A second researcher will observe you as you complete each activity and take notes.

Compensation and Risks
The researchers will not be providing any assistance completing the Safari unless it is an emergency. You will get a library water bottle and library bag to thank you for your participation. Participation is voluntary. You may decline to participate, refuse to answer any questions or withdraw from the project at any time with no effect on your future involvement with EPL. No risks are anticipated with participating in this research project. All participants will remain anonymous.

This project requires consent customer and/or guardian permission because of the audio and observational recording. A consent form is attached and will be collected prior to the Safari.

If you have any questions or concerns please contact either of the researchers:

Celine Gareau-Brennan
Email: cgareau-brennan@epl.ca

David Mucz
Email: dmucz@epl.ca

Intern Phone Number:
780.496.6822

Spread the words.

epl EDMONTON PUBLIC LIBRARY

Customer Experience Consent Form

First and Last Name:

Email: Best method to contact:

Phone: Postal code:

What is your first language?

Which of the following library branches
would you like to participate at?
☐ Clareview 3808 139 Avenue
☐ Highlands 6710 118 Avenue
☐ Jasper Place 9010 156 Street
☐ Mill Woods 2610 Hewes Way
☐ Strathcona 8331 104 Street

Is this the branch you visit the most?
☐ Yes
☐ No, if no which branch do you visit the
most?

Your age range:
☐ under 18
☐ 18-24
☐ 25-34
☐ 35-44
☐ 45-54
☐ 55-64
☐ Over 65

Do you have an (EPL) library card?
☐ Yes
☐ No

How long have you had an (EPL) library
card?
☐ Less than 1 year
☐ 1-3 years
☐ 3-5 years
☐ Over 5 years
☐ N/A

How often do you visit EPL?
☐ Daily
☐ About once a week
☐ About once a month
☐ About once a year
☐ Never or less than once a year

Customer consent:

I _____ have read the information letter and consent to participate in this study
and for this information to be shared with Edmonton Public Library staff as required.

I _____ have read the information letter and consent for my child,
_____ to participate in this study and for this information to be shared with
Edmonton Public Library Staff as required.

_____
Signature

_____
Date

Spread the words.

Appendix B. Customer Journey Map Data Collection Forms

Data Collection and Participant Information

Date:

Time:

Branch:

Specific Branch Info:

Participant Name:

Participant Contact Information - Phone: **Email:**

Participant Demographic Information:

Assigned Scenario:

Primary Researcher:

Secondary Researcher:

Observation Collection Form

Time	Where	Stage	Point	Doing	Thinking	Feeling	Observations

Appendix C. Customer Experience Safari Checklist

Customer Experience Safari Introduction Checklist

- ☐ Introduction to the researchers
- ☐ Thank you to the participant(s)
- ☐ Explanation of what is expected of them
    - o Today we are going to run through a few activities and we will discuss the schedule shortly
    - o Throughout these activities we are going to be observing what you do and ask you questions about what you are thinking and feeling. We encourage you to speak through your mental process out loud
    - o You will be the one leading this experience. Since we are observers we will not be answering any of your questions, unless it is an emergency. If you need help, you will need to ask other XXX staff
- ☐ We will be recording the audio from this Customer Experience Safari, taking note, and taking photos
- ☐ You can stop the experience at any time if necessary
- ☐ Schedule for the day
    - o This will take anywhere from 1-2 hours, after the time is up you are welcome to stay in the Library
    - o We will ask you to give us a quick 10-minute (for HIG, STR, CLV, JPL)/15-minute (for MLW) tour of the library, like we have never been here before
    - o We will ask you to complete a common library activity:
        - ▪ Get a Membership
        - ▪ Acquire material digitally or physically
        - ▪ Access the library website
        - ▪ Attend an early literacy program
    - o We will ask you to spend 10 minutes of "free" time
    - o We will do a short debrief at the end
- ☐ Questions from participant before we start

_____

Customer Experience Safari Debrief Checklist

- ☐ Thank you to the participant (give the thank you gift)
- ☐ Do you have any questions for us?
- ☐ Is there anything else that we should know about your experiences at the library?
- ☐ Is there anything we did not see at the library today that you think we should look at?
- ☐ We might need to contact you to clarify if we have any more questions; are you okay if we contact with you again?

Appendix D. Agenda Sent to Focus Group Participants

CUSTOMER EXPERIENCE FOCUS GROUP
Tuesday, December 5th, 2017

1. Introduction

2. Exploration of Specific Maps

3. Design Sprint

4. Sharing Session

5. Debrief