

Prince George's County Parks and Recreation Department **Senior ID Access Card Report**

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About the Client

The Prince George's County Parks and Recreation Department was is part of the Maryland-National Capital Park and Planning Commission, which serves Prince George's County and Montgomery County with parks, recreation, and planning.

The Prince George's County Parks and Recreation Department is famous for its unprecedented six national gold medals for excellence in parks and recreation management. While providing quality recreation programs, facilities, and services for residents and visitors, the Department also operates and maintains more than 27,000 acres of parkland throughout the county, including land developed for parks, picnic areas, athletic fields, historic sites, community centers, and recreation facilities.

Background

The Department's mission for Senior Services is to provide access to a variety of programs, courses, and activities that enrich the lives of the county's diverse aging population. Senior Services requires participants to sign up for Senior ID cards to gain access to different activities.

Currently, there are between 100,000 and 125,000 residents eligible for the Senior ID, however only 15,000 to 17,000 residents are card holders. The Department of Parks and Recreation hopes to increase participants in the ID card program by understanding senior residents' experiences with the ID card and event sign-up processes and by improving their experiences with ID card use and event participation.

This project team aims to gather insights from current Senior ID card holders and then to develop designs for improving the sign-up rate for Senior ID cards.

Research Study Focus

Our Goal

The goal of this project is to gain insight into why the Prince George's County Parks and Recreation Department has faced a lack of

participation in Senior activities by those with ID Cards. The Department has noted a lack of participation by eligible seniors in surrounding areas. We want to create solutions that will increase the ID card sign-up rate and activity engagement.

Furthermore, participation has been made more difficult by the COVID-19 pandemic; a majority of activities have moved online and will likely continue to be held online for the foreseeable future. Therefore, we want to examine seniors' needs in the context of virtual events and align those needs with the Department's planned programs.

Our research questions are:

1. What barriers prevent Senior ID cardholders from signing up for and attending activities?
2. Did cardholders face any difficulties when signing up for their card?
3. How has the COVID-19 pandemic affected the participation of ID cardholders?

Main Findings

We found:

1. Seniors want access to a wide variety of classes offered at times that work with their schedules (evenings, weekends).
2. They want live instruction from teachers who care about their subject matter.
3. The event sign-up process involves too many steps and is not automated enough.
4. Information about event schedules is hard to locate, outdated, and inaccurate in many email communications.
5. Seniors enjoy events where they can socialize with friends, such as Club 300 (walking club) and line dancing.
6. They are generally satisfied with the types of classes that are offered.

Study Design

Research Method

We used the contextual inquiry process to gather research data. The goal of this process is to gain insight into the users' everyday experiences. We completed four contextual interviews and held an interpretation session after

each interview to analyze our findings. We then created several experience models to help us better understand that data and create design solutions.

Target Users

Our four interviewees were all cardholders, so we were able to ask them about their experiences with signing up for the ID Card and for activities, as well as their participation. Users must be over sixty years old to sign up for a card; all of our participants met this requirement.

Participant Recruitment

We did not participate in the recruitment process. Instead, our participants were assigned to us. We reached out via email to six participants and received four responses, so we went through the interview process with those four.

The table below is an overview of the demographic information of our participants.

User Number	Age	Gender	Location	Cardholder
U1	81	F	District Heights	Yes
U2	67	F	College Park	Yes
U3	70	M	Upper Marlboro	Yes
U4	69	F	Lanham	Yes

Table 1. Participant Recruitment

Contextual Inquiry

Interviews

Three users were interviewed over the phone and one user was interviewed using Zoom. Our interviews took place between November 10 and 13, 2020, and were approximately 30-60 minutes long. Our goal was to discover insights about our users' lived

experiences with Senior Services and to understand the context surrounding their day-to-day interactions. To do this, we primarily inquired about their experiences with the Senior ID card and event sign-up processes, online and in-person events, and the Department's outreach and communication policies.

Interview Structure

We began each interview with a brief introduction to explain who we are, what we are studying, and the purpose of our project. We then asked participants for their verbal permission to continue with the interview before proceeding with the questions.

We asked several questions about a variety of topics. Some of our questions were about the card sign-up process (e.g., "Why did you decide to sign up for the Senior Center initially?," "When and how did you sign up?," and "Were there any barriers that made it difficult for you to sign up?").

Some questions were about event participation (e.g., "How often do you participate in events?," "How do you usually hear about the upcoming events?," and "Are there barriers that prevent you from attending more often, such as transportation or technology accessibility?").

Some were about event scheduling (e.g., "How are you currently viewing the schedule of events?" and "What would your preferred method of viewing the event schedule be and why?").

Some were about event preferences (e.g., "What are your favorite and least favorite events and why?" and "Are there any events that you wish were available that aren't?").

Other questions were specific to COVID-19 (e.g., "Are there any events that you attended prior to COVID that you don't attend now? Why or why not?" and "How comfortable are you with engaging with in-person events during COVID?") and to technology use ("How do you feel about the online events so far and would you make any changes?," "Do you use a computer or tablet?," "What is your most preferred device to use and why?," and "How comfortable are you with the technologies used for online events? Why are you more or less comfortable? Is there any technology in particular that you feel uncomfortable using?").

Contextual Analysis

Processes

Interpretation Session

The interpretation session was an opportunity for the team to discuss each interview in detail. Since only two of the five team members were able to attend each of the interviews, the interpretation session was crucial to fully immerse ourselves in the data and understand the perspectives of the interviewees. During the hour-long session, the interviewer shared what they heard and any notes they took. One team member was responsible for taking notes for each interview in an Excel spreadsheet. These notes would later become our Affinity Notes, which we used to create our Affinity Diagram.

The other team members asked questions about the data. If there was anything we didn't understand or thought was interesting, we delved into those ideas further. One team member was responsible for thinking about how this data could be interpreted into the various models and which model would work best.

For each interview, we were able to create a shared understanding of each interviewee, which prepared us to synthesize the data. The Excel spreadsheet notes included insights we thought was important to the data. This allowed us to come up with the key themes we later used in our models. By the end of the interpretation session, we generated between 40 to 80 Affinity Notes per participant, which we used to create our Affinity Diagram.

Affinity Diagram

Affinity Diagrams are an essential step in the contextual analysis process. Diagramming allows large amounts of data to be examined for underlying and reoccurring themes. It also represents findings graphically for stakeholders and designers. This is especially useful in managing a a large amount of data (such as the amount that we accumulated during our four interviews). Synthesizing the data as a group allowed us to create a shared understanding of the problem.

We began diagramming by moving the affinity notes from the interpretation sessions to yellow sticky notes. Each sticky note included which interview the information came from and where the note could be located on the Excel spreadsheet. We then delegated large sections of sticky notes to each team member and sorted the notes into clusters of similar themes. Once each team member was finished with their section, we

looked for discrepancies, differences, and similarities in our clusters.

After that, we further grouped similar sticky note clusters together under common themes marked with blue sticky notes. We placed about 4 to 6 yellow sticky notes under each blue note. Further grouping was marked with pink notes to group common blue note themes and finally, green labels to group pink notes. At the end of this process, we had three green labels that organized our information into broad themes that accurately represented the data. Once the themes were completely formulated, we arranged the green areas to illustrate a story reading from left to right.

Identity Model

Throughout the interviews and interpretation sessions, we found that the same events and processes appealed to some seniors while dissatisfying others. As a result, we realized that satisfaction depends on personalities and values. Based on our data, we created an Identity Model to capture seniors' core values and self-expressions relevant to the offered activities. These identities stood out to us among the patterns we observed in the Affinity Diagram.

This model is divided into three categories – “I care about,” “I am,” and “I enjoy.” Each identity includes a “Give Me” list that specifies resources and services that senior centers should provide to accommodate a particular identity. To bring these identities to life, we used “quotes” that a senior with each identity might say.

Relationship Model

During our interviews and interpretation sessions, we noticed that users frequently mentioned other people when describing their experiences at the Senior Center. Because of this, we built a Relationship Model to learn how users' relationships impact their decision-making about signing up for the Senior ID card and attending events or classes.

After the interpretation sessions, we reviewed our notes, color coded the relationship data, and wrote down people who are important to our users in both Senior Center activities and in life. After that, we categorized these people into three groups based on the influence they have on our users' participation in Senior Center activities. At the top of the model are people who have the most influence on their activities; at the bottom are those with the least influence. The middle group falls somewhere between those two levels of influence.

The Relationship Model's top level is the inner circle, which consists of our users' closest friends and classmates who may share their interests and are of a similar age. The second level is the support groups, which includes other social groups and communities that seniors are involved in, their class instructors, and Senior Center staff. The last level includes users' families and perhaps coworkers, but who have less influence on their decision to participate in Senior Center activities.

Model Key Findings

Affinity Diagram

Creating the Affinity Diagram revealed insights and patterns, first that levels of technological savvy and exposure varied greatly among interviewees. Some found the online marketing and sign-up processes manageable, while others avoided the online experience entirely because they found it difficult to navigate. These differences in opinions and abilities generated discussion about best solutions given the variance in technological preferences and skill levels.

However, interviewees who were concerned about their inability to use technological platforms expressed a desire to learn technical skills so that more opportunities would be available to them during the pandemic. Furthermore, interviewees with some technological experience either wanted to learn more advanced skills (e.g., social media) or wanted to help less experienced peers.

The diagram also revealed a need for activities and events that accommodate a greater variety of schedules and preferences. For online classes, participants preferred easy-to-use, flexible communication platforms, such as Zoom. Furthermore, users were more inclined to attend activities with simplified class structures customized for their age group; they prefer activities that reflect their interests and are presented at a suitable pace. We also found a need for events to be held at times that accommodate seniors with busy schedules. Some interviewees are still working and are unable to attend daytime events. Lastly, users indicated that they prefer activities that allow for independence and socialization within their peer group. Some seniors enjoy activities they can complete on their own within the safety of their own space (due to COVID); others want to participate in activities where they can socialize with friends. Additionally, users said activities that can be completed in groups or individually is a great way to incorporate both of these preferences. For example, they enjoy the walking club

because it allows for group or independent walking. We also found that users love goal-based events with incentives, such as the ability to win different prizes upon completion.

Given that the interviewees belong to a high-risk age group, our participants stated that they choose events that implement safe COVID-19 practices and guidelines, but also stated that they do not necessarily enjoy online events. These users desire to maintain relationships with their peers and participate in in-person events while also staying safe.

Identity Model

Through the Identity Model, we inferred that seniors care about their mental and physical health and that of their friends. We also confirmed the importance of event engagement; learning new skills and travel/exploration seems to be an effective way to stay active. Furthermore, many seniors have desire to expand their horizons through more diverse classes and traveling.

The Department should adopt solutions that serve seniors who prefer technology as well as those who prefer more traditional methods of communication and engagement. It's important to note that some seniors still have jobs and need classes that fit their work schedules.

The "I Care About" section reflects three identities: "The Outreacher," "The Pro-Masker," and "The Social Butterfly." Outreachers care a lot about their friends' physical and mental well-being and are seek ways to help their friends. Pro-Maskers place a strong emphasis on their health and the health of others, especially during the pandemic. They desire online events or more strict guidelines at in-person events. Social Butterflies care a lot about personal connections and social interactions and desire more collaborative events.

The "I Enjoy" section reflects three identities: "The Traveler," "The Scholar," and "The Health Enthusiast." The Traveler enjoys travel (as opposed to indoor activities) as well as new cultural experiences; they crave unique day trips when it's safe to do so. The Scholars enjoy opportunities to master new skills and want to take a variety of classes, from history to cooking, without intense course requirements. Health Enthusiasts enjoy exercising and hope to see as many fitness classes as possible.

The "I Am" section also reflects three identities: "The Traditionalist," "The Techie," and "The Worker Bee." Traditionalists are not interested in learning technology and prefer paper communications. In contrast, Techies are technology enthusiasts and prefer online communications and sign-up processes. Worker Bees are seniors who have jobs and hope to access more asynchronous classes or classes scheduled outside the workday (i.e. avoid daytime on weekdays).

Relationship Model

The Relationship Model reveals that users' close friends and classmates have the most influence on their decisions to sign up for the Senior ID card and for classes. We found that seniors enjoy activities with other seniors and are more motivated to go to events or classes if their friends are going. Furthermore, seniors like helping each other with the sign-up process, which is especially valuable during the pandemic, because some don't have a home computer and those that do might not know how to log into their account or sign up online for activities.

We also found that seniors' class instructors and other social groups, as well as Senior Services staff, have less influence on users' decisions to participate in certain activities, even though they still have a fair amount of influence. For instance, we found that some seniors would compare Prince George's County activities to similar ones from their social groups in surrounding counties and then decide which ones to attend. Furthermore, seniors would attend certain classes over and over again if they liked the instructor or received helpful information from the Senior Services staff.

Despite the fact that users are closer emotionally with their children and grandchildren and see their coworkers and employees more often than some of their friends and social groups, these people have the least influence on users' decisions to sign up for the Senior ID card or go to particular activities. Even though users may ask their children for technical help, they tend to ask Senior Services staff or a friend for help. Additionally, being able to communicate with their grandchildren more effectively is a big motivator for seniors to enroll in the Department's technology classes, but their grandchildren don't influence their decisions to sign up for certain activities as much as close friends and classmates who will also be attending. Lastly, some users learned about the Senior ID card from coworkers or employees, but a most were invited to apply for it by friends or other social groups.

Ideation

Issues List and Hot Ideas

Creating an Issues List

Process

We created a list of issues based on the patterns and themes observed in the Affinity Diagram, which was built on insights gathered from current cardholder feedback. After examining the diagram information, we wrote notes on what could be fixed or improved in the sign-up and event engagement processes.

An issue was listed if a significant number of participants had discussed it. We also included notes on information that surprised us and on processes or systems that seemed broken. Overall, this question from our textbook guided the list: “If this is the world of the user what must we address, support, solve to add value and improve their world?” (Holtzblatt, K, & Beyer, H.(2016) Contextual Design: Design for Life, 2nd ed.Morgan Kaufmannoken).

Later, we categorized the issues list into different topics to organize the information and highlight main themes.

Issues

Sign-Up Process

- The event sign-up process is complicated.
- The sign-up website interface is difficult to navigate.

Hardware

- A lot of seniors don't have access to computers and tablets at home.
- Some seniors lack internet access at home.

Software

- Some seniors are dissatisfied with the unnecessary features on Zoom and Microsoft Teams.
- It's hard to find and reference emails that contain event schedules.
- Some seniors miss information because they don't check their emails often.

- Emails include broken links and outdated information.
- Some seniors haven't received any marketing emails during the pandemic.
- Some seniors aren't aware of information on social media because they don't use it.

Insufficient Instruction

- Some seniors find hard copies inefficient and costly.
- The quantity of technology classes and the variety of topics covered are lacking.
- Some seniors are hesitant to take a technology class; it might be too difficult.

COVID Concerns

- In-person events raise health concerns due to COVID-19.
- Some seniors don't feel like getting presentable for an online event since they stay home most of the time during COVID.
- Non-ID holders are less motivated to sign up for membership now that in-person events are cancelled.
- Current activity schedules don't align with the time availability of seniors with jobs.
- Some seniors don't like activities where they sit at a screen for a long time.
- It's frustrating when class time is changed at the last minute or when a class is cut short.

Feedback Reception

- Some seniors feel like their feedback isn't being heard.

Creating a Hot Ideas List

Process

Our ideation phase began with a "wall walk" where each member of our team individually brainstormed ideas based on the models (Affinity Diagram, Identity Model, and Relationship Model). We formed each idea on a sticky note and placed it next to the models that inspired the idea. Then we created a list of hot (design) ideas from those sticky notes. Sticky note content that didn't qualify as a hot idea was categorized as "parking lot" items.

Hot Ideas

QR Code

- Place a QR code on the back of a sign-up card.
- Allow users to view all activities on the website.
- Provide a scannable code that links users' profiles with sign-up.
- Make all features available on users' sign-up cards.
- Allow users to scan their driver's license to verify age.

Smartphone App

- Include features to:
 - check schedules
 - sign up for activities
 - check activity capacity
 - record activity information
 - network with friends.
- Allow users to enter Zoom classes directly from the app
 - Now need to log in or find the email
- Allow users to link their selections on the app with their calendar system.
- Create a function to store all the digital marketing materials
 - Similar to a wallet function that allows users to add/view/delete cards, coupons, and tickets
- Show the list of signed-up participants (or only show the user's friends) on the sign-up page.

Fitness Tracker App

- Allow users to keep track of classes attended
- Allow users to log exercises on their own
- Encourage monthly fitness goals that seniors can complete on their own
- Create a customized weekly or monthly goal and progress tracker
 - can be a feature inside an app
 - tracks user's personal goal completion and sends reminders
- Host healthy club partner/group competitions
 - Set an exercise goal
 - Create teams
 - Provide opportunities to win prizes
- Reward and/or ranking system
 - can be a feature inside an app

- record user's activities (how often they attend an activity)
- offer rewards (T-Shirt, meal, book, event ticket, etc.) at different levels
- bring Prince George's to life—activities for a cause or to raise money

Technology Education

- Create technology classes or prerecorded tutorial videos
 - how to use a computer, cellphone, popular software, social media
- Provide different levels of classes
 - what can be done with certain technologies to how to use it to complete a task
- Plan technology classes based on specific needs and devices available at home
- Create online classes for everyday needs and how-to's (back to basics)
- Provide activities don't require a computer
 - telephone meetings and podcasts on different topics
 - step-by-step recipes
 - book discussions

Promote Interaction

- Offer more crafting, interactive events during COVID
 - online and/or in-person outdoors
- Deliver/pick up (monthly) "craft boxes"
 - include the required materials (paper, art supplies, etc.)
- Create more project/goal-oriented classes that can be completed individually
 - examples: book club, knitting classes
- Attach digital materials in the emails before class starts

Survey Users

- Find out what the users' preferred video conferencing tool
- Find the classes seniors want to take and get suggestions for new classes and processes
- Make it easy for users to share feedback on classes, technologies, and senior services (e.g. send out bi-monthly surveys, ask for comments at the end of the event, etc.) and make sure their feedback is heard.
- Distribute a survey to ask for general suggestions
 - stay on Zoom after event
 - call the participants (ask them to indicate phone number)
 - offer rewards—earn points toward a prize

Buddy System

- Senior-to-senior
 - can be a volunteering opportunity
- Senior-to-children tech collab workshops
 - recruit volunteers from local schools (can be counted as community service hours)
 - recruit own children (provide with syllabus or reminders)

Flexible Class Schedule

- Offer classes of different durations: long and engaging and short, fun (or informational) activities
- Offer classes at different times: early morning and evening classes
- Post recorded video of in-person classes to view later
- Host asynchronous, small-group meet-ups for those with common interests
- Offer synchronous events or classes in the phone call format (Zoom audio only or telephone conference)
- Hire substitute instructors to be on standby in case of scheduling inconsistencies

Covid Care

- Enforce daily health screenings and temperature checks for people who want to attend in-person events
- Offer options to for in-person class (with strict social distancing guidelines) or watch live stream at user's preferred location during COVID
- Offer COVID care kits for pickup and delivery (masks, alcohol wipes, hand sanitizers, greeting cards, etc.)
- Include detailed social-distancing guidelines for in-person events on the event page and in the email
 - enforce strict mask rules during the events (if and when they resume)

General

- Send monthly/weekly mail newsletters for senior events or incorporate a senior section in general newsletters
- Research neighboring county resources and simulate if appropriate
- Make the app suitable for laptops and cell phones and make it easy to switch log in status across devices (cross-platform/device)
- Provide step-by-step tutorial video or interactive visual feedback for the sign-up process (for ID card and activities) on the website (and/or in the app) and include video links in email sent to users

- Use Zoom for online classes; a lot of seniors already use it and it can be downloaded to iPad/iPhone for those without computers
- Give users option to receive activity notifications/calendar via text message, email, or mail
- Make sure event schedules are updated and the links are working
- Provide an online chat service (website and/or app) for people who prefer online help services
 - help desk access for technology question

Generating Design Ideas and Sketches

We summarized the general application and technology features that are critical based on the Hot Ideas list. In addition, we listed the pluses and minuses associated with the ideas. After discussing the requirements and desires gathered from the list of issues and hot ideas, we generated eight design ideas. The team voted on their top four choices, each of which was envisioned using sketches and prototyping tools.

Product Concepts

Conceptual Design 1: Video Tutorials

Design

This video tutorial walks seniors through the online sign-up process step-by-step. Users can access the videos in two ways. First, the video would pop-up when the user logs into the main event page. Second, every user would receive an email containing all the video links.

On the tutorial page, a progress bar shows the percentage of tutorial topics completed. The checklist beneath the progress bar indicates whether each video topic is completed already. Clicking on the phone icon at the bottom of the page yields a phone number for staff support. Next to it, the chat icon offers support in a live chat window. The question mark icon leads to a FAQ page. The event sign-up page on the website incorporates a visual feedback feature.

Alert icons and error messages explain the exact reason(s) why the sign-up process might fail. For instance, it would notify the user of full capacity for a class or time conflicts for another activity placed in the cart. The phone and chat icons are available for users to seek live assistance at any point.

Relation to Findings

We found that many seniors avoid online events because they are intimidated by the complexity of the online sign-up process, especially since they can't sign up for events in-person due to the pandemic. They often ask friends who are more technology savvy or more familiar with the website to sign-up for them or to walk them through the process. Sometimes, they call the Senior Services staff for help.

However, some seniors worry that they might be overwhelming staff with phone calls and distracting them from their main jobs. In fact, many seniors expressed that any type of class or tutorial would make their lives easier. This design aims to help seniors who find the event sign-up process too complicated and require assistance in navigating the website.

Benefits

The video tutorials and visual feedback feature can help seniors become more self-sufficient in the sign-up process regardless of their technology background and familiarity with the website. It would still provide them with staff assistance when necessary. The reminders for video tutorials and alert messages raise awareness.

The tutorials and visual feedback may decrease the likelihood of the staff getting overwhelmed by phone calls, because basic information and live assistance will be covered by tutorials and alert messages. This design will benefit the seniors' experience by removing technology barriers while ensuring that seniors feel heard.

Conceptual Design 2: QR Code System

Design

QR codes on the back of their ID cards will allow for easy sign-up and sharing of particular activities. The QR code's main uses are evident in this model. First, the ability to scan and automatically be signed in to view and add activities. Second, a personalized QR allows easy access to the site or app without having to input any credentials. Scanning the QR code automatically signs-in the user and takes them to the activity page where they can make their choices. The third feature allows users to add

notifications for selected upcoming activities.

They can also share the activity with others in two ways. First by sending it via phone or email. The second method is via the phone using the QR code. The user pulls up the QR code for the selected event and have the person they're with scan it with their phone. Once a user swipes to get into the event via QR code, the system automatically initiates reward tracking. More participation earns more and different rewards, such as dinner or clothing.

Relation to Findings

This conceptual design is based on the users' preference for a simplified navigation process that allows for easy sign-in. There is variation in the amount of tech expertise among seniors, so a simplified process benefits everyone. This solution also offers a physical component that some users desire.

By improving upon an existing system, it creates a sense of familiarity for the seniors. The simplified sign-in process would entice seniors to sign up for events. QR codes are also becoming more popular due to the pandemic, which reinforces their use. For instance, restaurants are replacing physical menus with QR codes. This design also incorporates incentivized activities to increase participation, which was mentioned in the models.

Benefits

One benefit of this design is that it simplifies the process. It doesn't have to completely replace the original sign-in and activity sign-up process but can be used as an added method. This design also helps reach the goal of increasing activity sign-up and participation. Another benefit is that this single solution allows for multiple uses. Seniors can rely on the card and phone to do different tasks with minimal effort. Lastly, incentivizing seniors through gamification may help increase participation and lead to more consistent participation in activities.

Conceptual Design 3: Senior Activity App

Design

This conceptual design is a Senior Services mobile app. Users can log-in with a username and password, or scan the code on their Senior ID card. After users log in, short, swipe-through tutorials on how to use the app are provided. Users can skip a screen or the entire tutorial. The app has four tabs: Activities, Rewards, Payment, and Settings.

On the “Activities” screen, users can find activities and sign-up for them. A “share” button next to each activity allows users can share the activity via text messages, emails, and social media. When users are looking up a particular activity, they can see a list of people who’ve already signed up. Users can also “like” an activity to save it under their “favorite” activities and refer to it later.

Users will receive notifications when an activity is shared with them and when a registered activity is happening soon. When an activity is over, the “feedback” screen will pop up automatically and ask users to rate the event and provide additional feedback.

The app should feature a reward program for the Senior ID card. Users will get points by participating in activities, completing personal monthly goals, volunteering at the senior center, etc. On the “Rewards” screen, users can track their points and view available rewards.

Relation to Findings

According to our research, many users think the process of signing up online for an activity is complicated, has too many steps, and requires them to remember a password. Considering those comments, this option allows users to scan a QR code on their ID card to sign in. Another user concern is that it’s hard to find activities and relevant information the website. Users also find it difficult to monitor their emails, which causes them to miss news about schedules and activities that are shared by their friends. These problems inspired our idea to use “Activities” as the app’s main screen and include three sub-tabs

(“Upcoming”, “Registered,” and “Favorite”) that show upcoming activities, as well as activities users have registered for and liked, inside this screen.

Apart from technical difficulties, technology accessibility is a factor that prevents seniors from signing up for events online; some don't have a computer at home and don't want to use their phones to visit the website and complete the sign-up process. This mobile app's simple interface facilitates a good user experience, so seniors can find it easy to use.

Furthermore, knowing that seniors enjoy sharing and talking about activities with their friends, we need to ensure that activities can be easily shared in multiple ways. Specifically, the app includes the option to send text messages, because some seniors don't have a computer or rarely check their emails.

Our findings also indicate that users are more likely to sign up for an activity if friends or someone they know already signed up for the event. Thus, the app allows users to see who has signed up for an activity.

We also found that users are more motivated to participate in if they're offered incentives. To increase the sign-up rate for the Senior ID card and activities, and to encourage seniors to use Senior Services in general, the app accommodates a rewards program that allows users to track points and view possible rewards.

Benefits

First, users can log into their account easily and quickly on the app, by scanning a QR code (or barcode) on their physical Senior ID card. They can avoid the website and don't need to enter a username or password. A second benefit is the app's simple interface that allows users to find activity-related information on the “activities” screen, alongside sign-up, share, and cancel options. Most importantly, users may be motivated to participate by seeing a list of people already signed up and by using the rewards system.

Conceptual Design 4: Buddy System

Design

A mentorship program that pairs tech-savvy seniors with less experienced seniors would help the latter learn technical skills. If the

Department chooses to implement this program, it could email, call, and send a newsletter to current cardholders asking them to participate in the program as a mentor or mentee. Participants would be surveyed to determine their location, time preferences, experience levels, and general interests and be added to a database of mentors and mentees. Those who sign up via email would fill out a Google form, while those who sign up via a newsletter or telephone would give their information to a front desk staff member.

Relation to Findings

We found that several seniors know a lot about technology and would share their skills with their peers. We also found other seniors without technology experience and need help performing tasks that require more technological knowledge, such the sign-up process and online class attendance. A mentoring program would be an opportunity for seniors with technological experience to help others. We also found that many seniors enjoy socializing with friends from the senior center. In fact, we believe this program would give them the opportunity to spend more time with friends and help new members form new friendships.

Benefits

The mentors would benefit from this program because it would allow them to teach and interact with their peers. The mentees would benefit because they could learn new skills. Furthermore, both types of participants would benefit because the program would help them strengthen friendships formed from their participation at the center.

Product Concept Updates Based on Client Feedback

Following the client presentation, we updated Conceptual Design 1 (video tutorials). We changed the shopping cart metaphor on the visual feedback design to a calendar metaphor, because calendars are more fitting for event management systems. In addition, we added the Conceptual Design 4 (Buddy System) proposal to illustrate our plans to promote technology education and interaction among seniors.

Appendix

Interview Questions

(Please note that interviews were semi-structured, so this list of questions is not exhaustive.)

1. Why did you decide to sign up for the senior center initially?
2. When and how did you sign up?
3. Were there any barriers that made it difficult for you to sign up?
4. How often do you participate in the events (before vs. after COVID)?
5. How do you usually hear about the upcoming events (before vs. after COVID)?
6. How are you currently checking/viewing the schedule of events?
7. What would your preferred method of viewing the event schedule be? Why?
8. Are there barriers that prevent you from attending more often (such as transportation and technology accessibility)?
9. What are your favorite and least favorite events? Why?
10. Are there any events that you attended prior to COVID that you don't attend now? Why or why not?
11. How do you feel about the online events so far? Would you make any changes?
12. Are there any events that you wish were available that aren't?
13. Would you be willing to recommend those events to your friends? Why?
14. Do you use a computer or tablet?
15. If yes: What is your most preferred device to use? Why?
16. How comfortable are you with the technologies used for these events on a scale of 1 to 10 (10 being extremely comfortable, 1 being not comfortable at all)? Why are you more or less comfortable? Is there any technology in particular that you feel uncomfortable?
17. How comfortable are you with engaging with in-person events during COVID?
18. Have you been using Zoom for the online events?
19. If yes: How do you like using Zoom? How about Microsoft Teams?
20. What changes do you wish to see in the senior center? Why?
21. Thank you for participating. If you have any questions or concerns about what we've discussed, please feel free to text/call/email me.