

Improving engagement and accessibility for older adults at shady grove



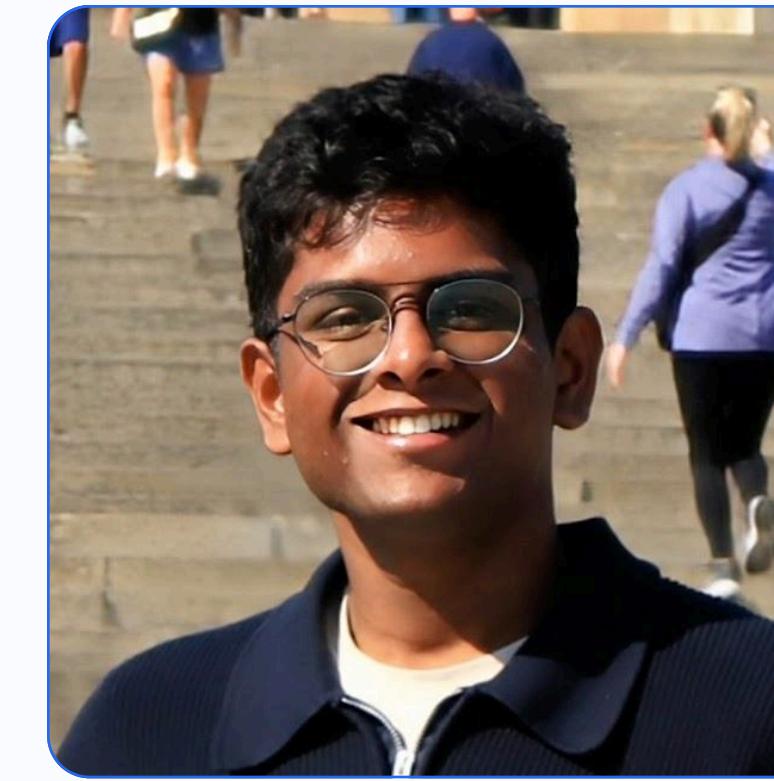
University of Maryland,
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Meet the Team



Ming Rui

HCIM 2nd year



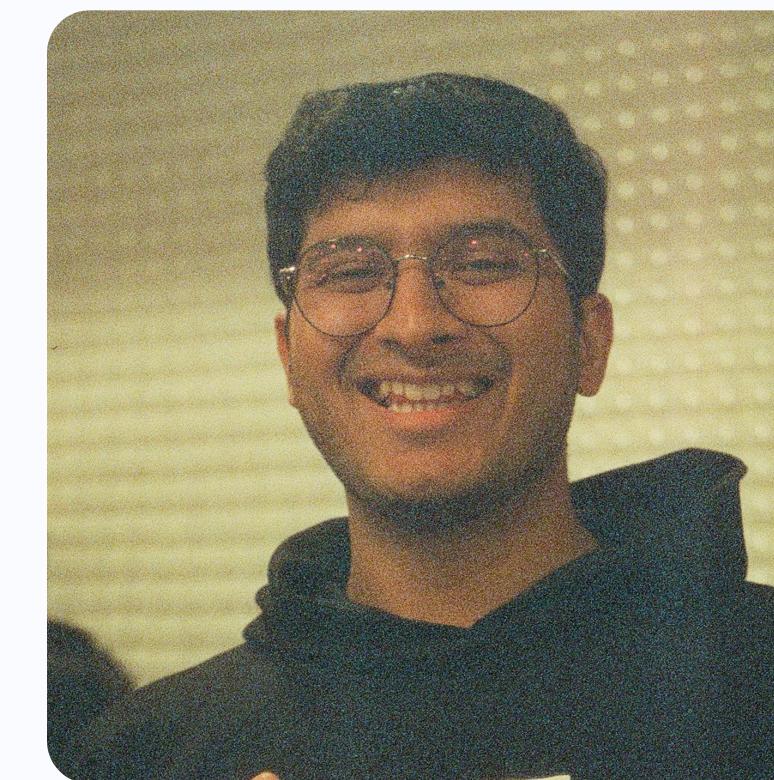
Rahul Gannamaneni

HCIM 2nd year



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HCIM 2nd year



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Agenda

1 Challenge

2 Research

3 Analysis

4 Solution

Understanding the Challenge

"Addressing digital and physical accessibility challenges for older adult volunteers engaging with students at Shady Grove."

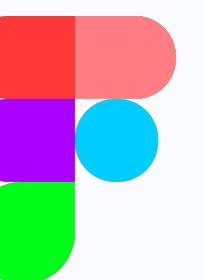
Key concerns:

- Difficulty navigating campus (signage, parking, building layout)
- Barriers in digital tool usage (Figma, Discord, Google Docs)
- Communication gaps between students and older adult volunteers

Research Methodology

What We Set Out to Explore

- Discover how volunteers **navigate** campus and the **physical barriers** they face
- Identify the **digital tools** utilized by volunteers in class and assess their **comfort levels** with each
- **Role and motivation** of volunteers in this initiative
- **Opportunities to improve** the volunteers' experience in this initiative



Research Methodology

Data Collection Strategies

Observation study at USG

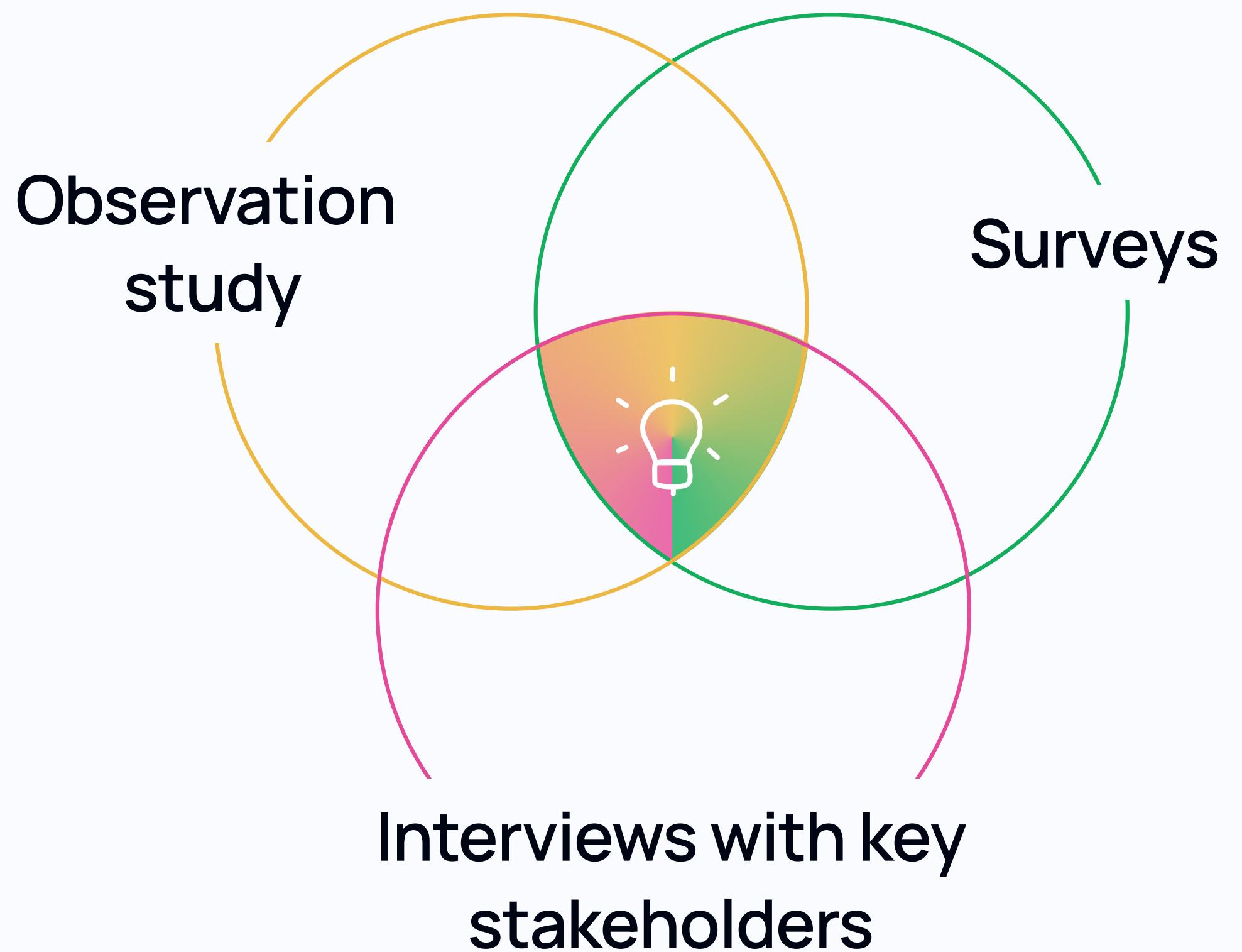
(campus navigation, class interactions)

Surveys (n=6)

(experiences with parking, digital tools, navigation)

Interviews with key stakeholders

(Dr. Galina Reitz, volunteers, students, coordinator from Empower the Ages)



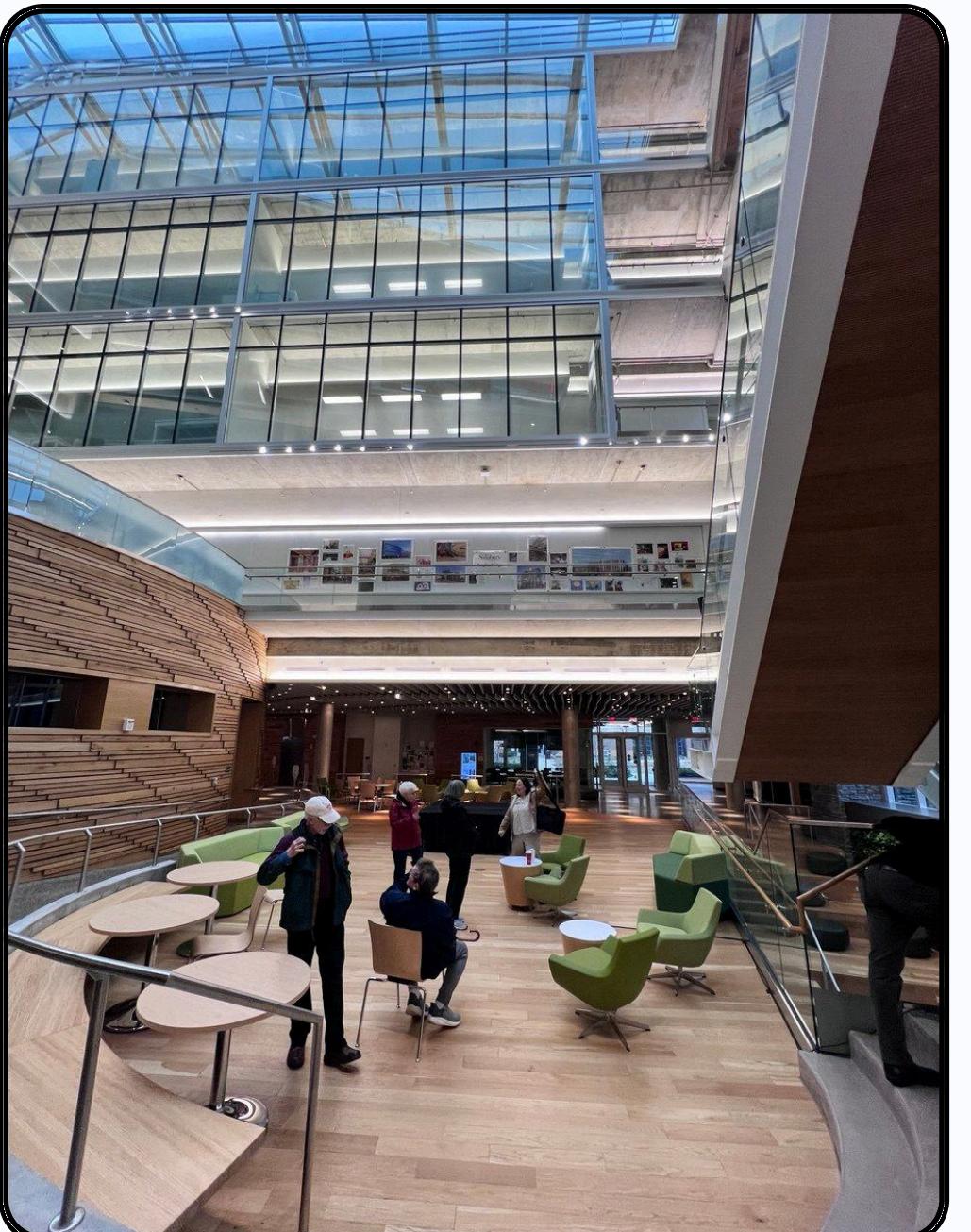
Observational Study

Experiencing Shady Grove as a Volunteer

A physical accessibility audit was conducted of the campus areas that would be most frequented by the volunteers. This was mapped out from the parking to the class venue.

Identified checkpoints

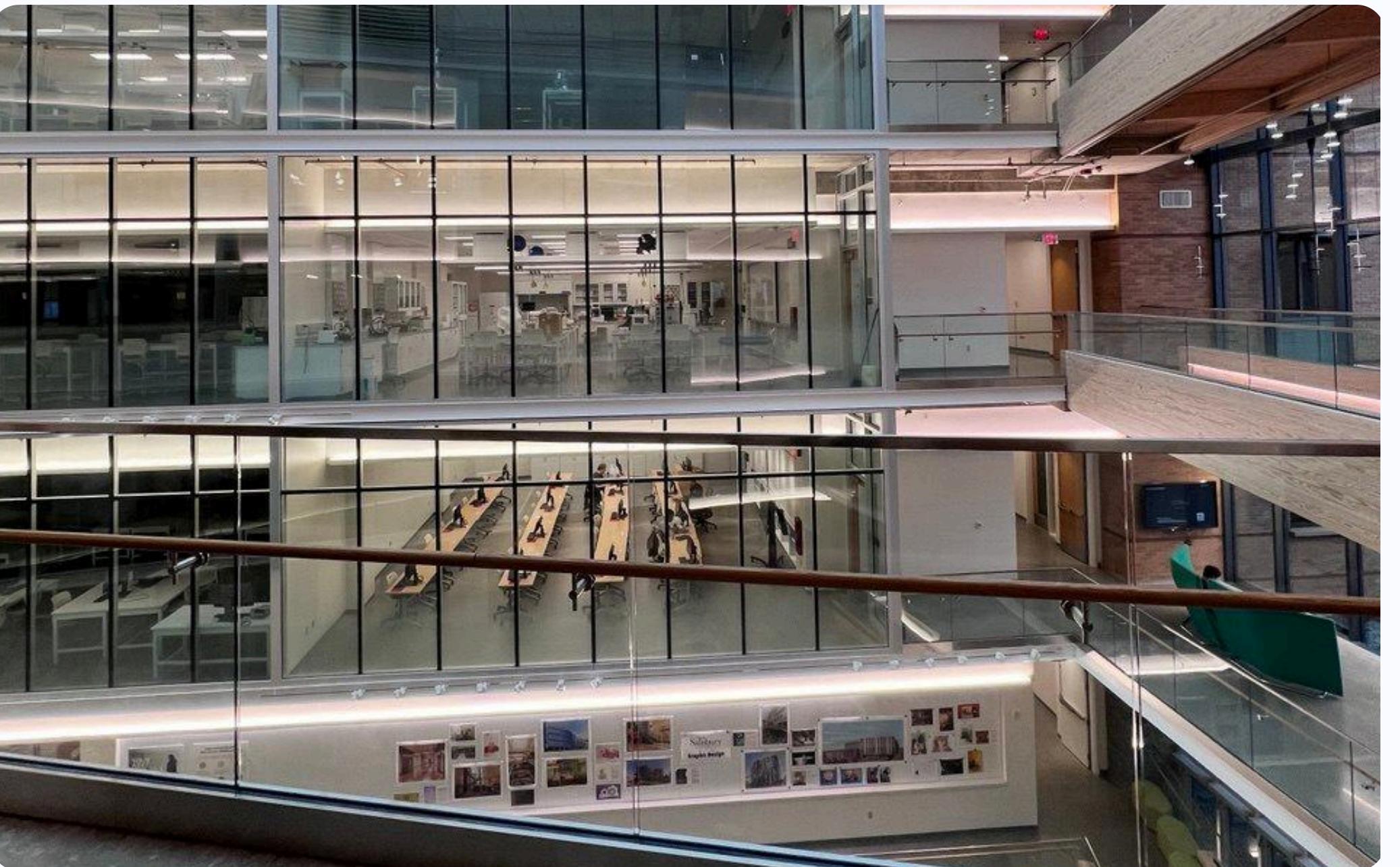
- Arriving on campus and obtaining a parking pass
- Navigating from the parking lot to the classroom
- Observing way finding challenges (signage, elevators, stairs)
- Identifying accessibility barriers in pathways and entry points



Observational Study

What We Observed

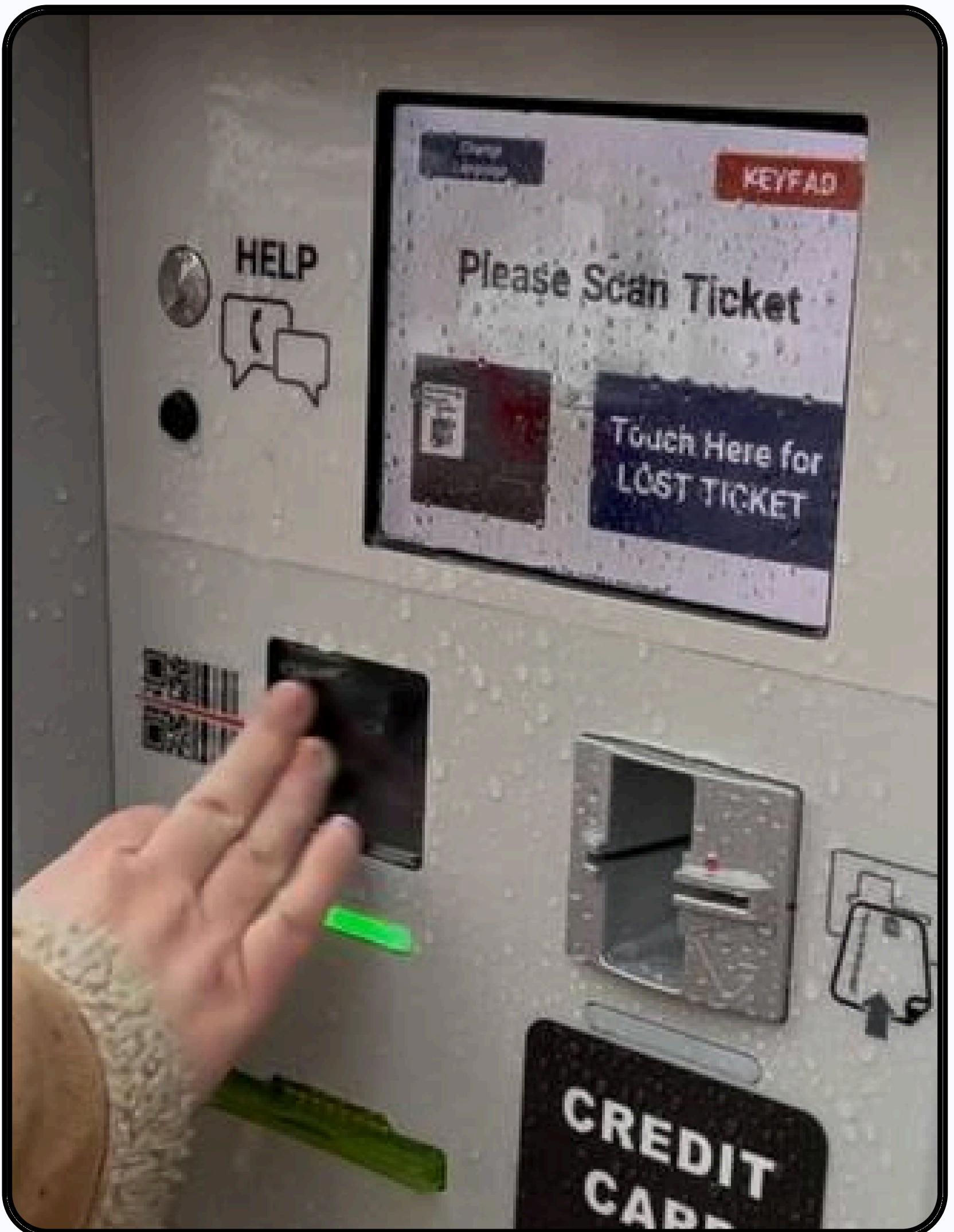
- **Mix modality of tools** used to facilitate communication and collaboration used by volunteers in class
- **Different levels of engagement** volunteers had with students, from playing the role of the **observer** to conversation **initiators**
- Reliance on **physical guidance** (students, coordinators) to way-find on campus



Observational Study

What We Observed

- Volunteers needed to **hunt discussion spots** with students, which is challenging for volunteers with **mobility issues**.
- Accessible parking kiosks are not sheltered
- Accessibility barriers in **seating, classroom layouts**



Survey Insights



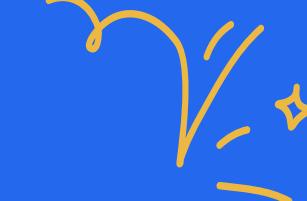
Navigation difficulties
due to lack of signage



Struggled with real-time
collaborative tools



Interacting with students and
brainstorming was valuable



Who are these
Volunteers?

Meet Ellie Carter



Ellie Carter, 78
Retired Social Worker

Background

- Ellie has dedicated her life towards the social sector, where she worked for over 30 years with families from underserved communities to assist them in accessing education. She was recently widowed, and now lives with her son's family in Maryland.
- In 2024, she joined the Empower the Ages mentorship program at USG to stay connected with younger generations.
- Her son drives her to campus for the 6 planned sessions per semester.

Tools and impairments

- Uses a cane while walking.
- She has some hand tremors while writing, using her phone or holding handouts.
- Her eyesight is not sharp.

Pain Points

- Difficulty using new online platforms for collaboration like Google Docs, often missing updates or messages.
- Feels disconnected when student conversations move to digital channels.
- Campus navigation is difficult due to mobility constraints and lack of clear signage.
- The parking voucher and parking tickets look alike and confuse her when leaving campus.
- Has to squint while reading from a student's laptop.

Behaviour / Habits

- Prefers in-person discussions over emails or messages
- Asks students for help with technology, sometimes feeling embarrassed about it
- Enjoys storytelling and giving real-life examples to help students
- Relies on printed materials rather than digital resources

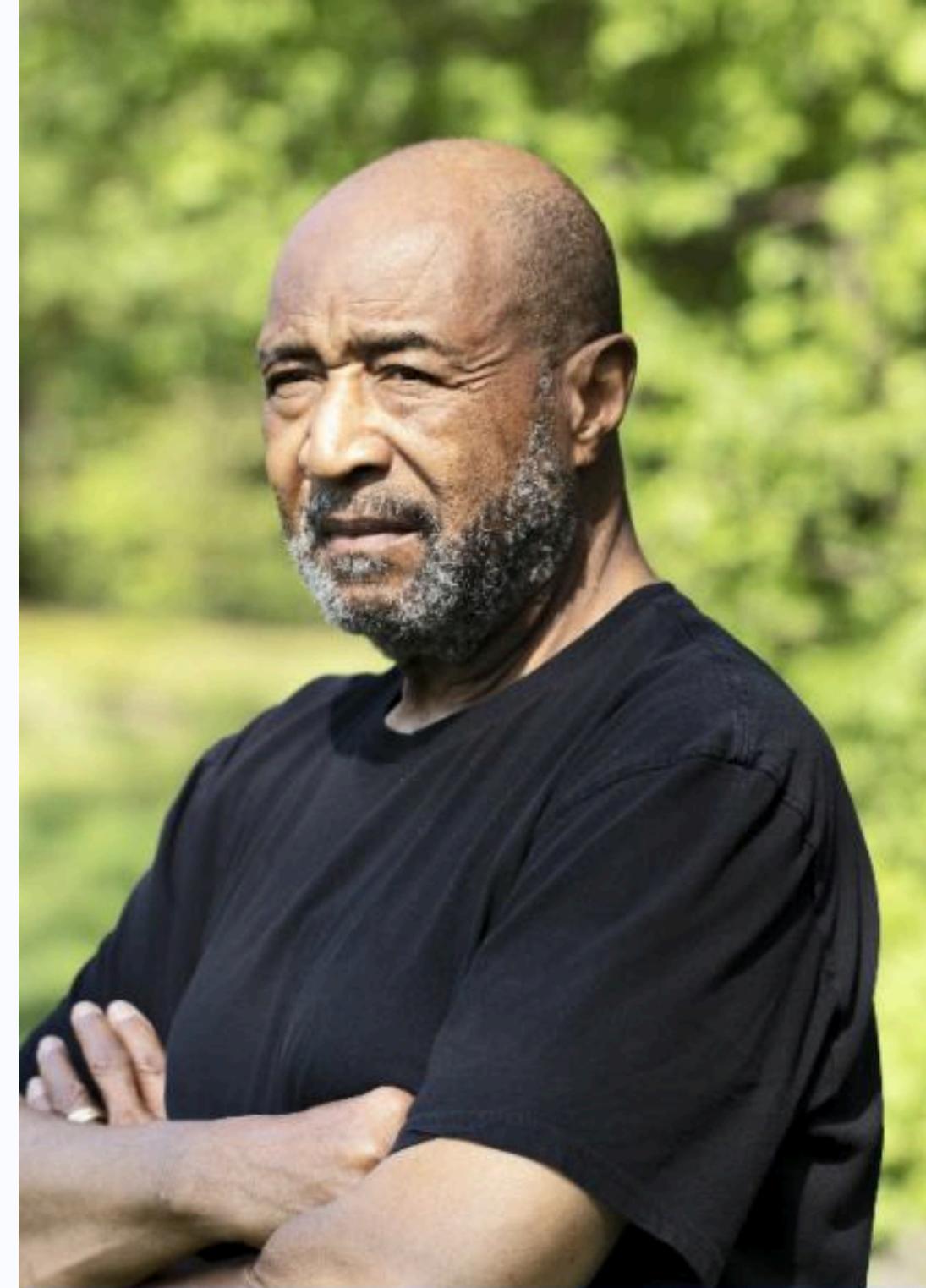
Quotes

"I want to spend more time with these students, because I feel I still have a lot to give back."

Goals

- To share life experience and wisdom with younger generations.
- To form meaningful connections with students without relying on technology.
- To overcome the challenges of navigating campus and participating fully in discussions.

Meet James Grayson



James Grayson, 70
Retired Entrepreneur

Background

- James is a retired construction-manager in the D.C. - Baltimore area for 30 years. Then, he joined forces with a friend to build a company that offers tech solutions for construction developers. He recently retired, but still has a fiery passion to contribute something meaningful.
- He wants to pass on his knowledge through the Empowering the Ages program, and this will also allow him to learn more about technology.
- He lives with his wife, and drives himself wherever he needs to be.

Tools and impairments

- Uses a hearing aid.
- Often experience joint pains.
- Uses his phone to magnify text on the handouts.

Pain Points

- Students speak using jargon and slang when discussing projects making it hard to follow.
- He finds it confusing when multiple applications (on laptop) are needed at the same time.
- Parking is a pain, especially when he has to remember what level he parked on, and if it's far from his destination.

Behaviour / Habits

- Stays in touch with technology.
- Stays back on campus after meetings for social interaction.
- Grabs lunch at the USG cafeteria.
- Uses voice dictation while writing lengthy messages or emails.

Quotes

"I remember college... the passion and excitement can create something amazing. I want to understand how I can help these young adults find their path."

Goals

- Enjoys engaging with students who show curiosity and initiative.
- Likes to have conversations about current technologies, and understand how students use them.
- Wants to help students build confidence in their ideas by mentoring them.
- Wants to maintain his independence while adapting to physical limitations

Challenges & Opportunities

Identifying and addressing barriers faced by volunteers



The **disparity in tools** employed by **volunteers and students** during class may lead to **communication** and **collaboration challenges**.

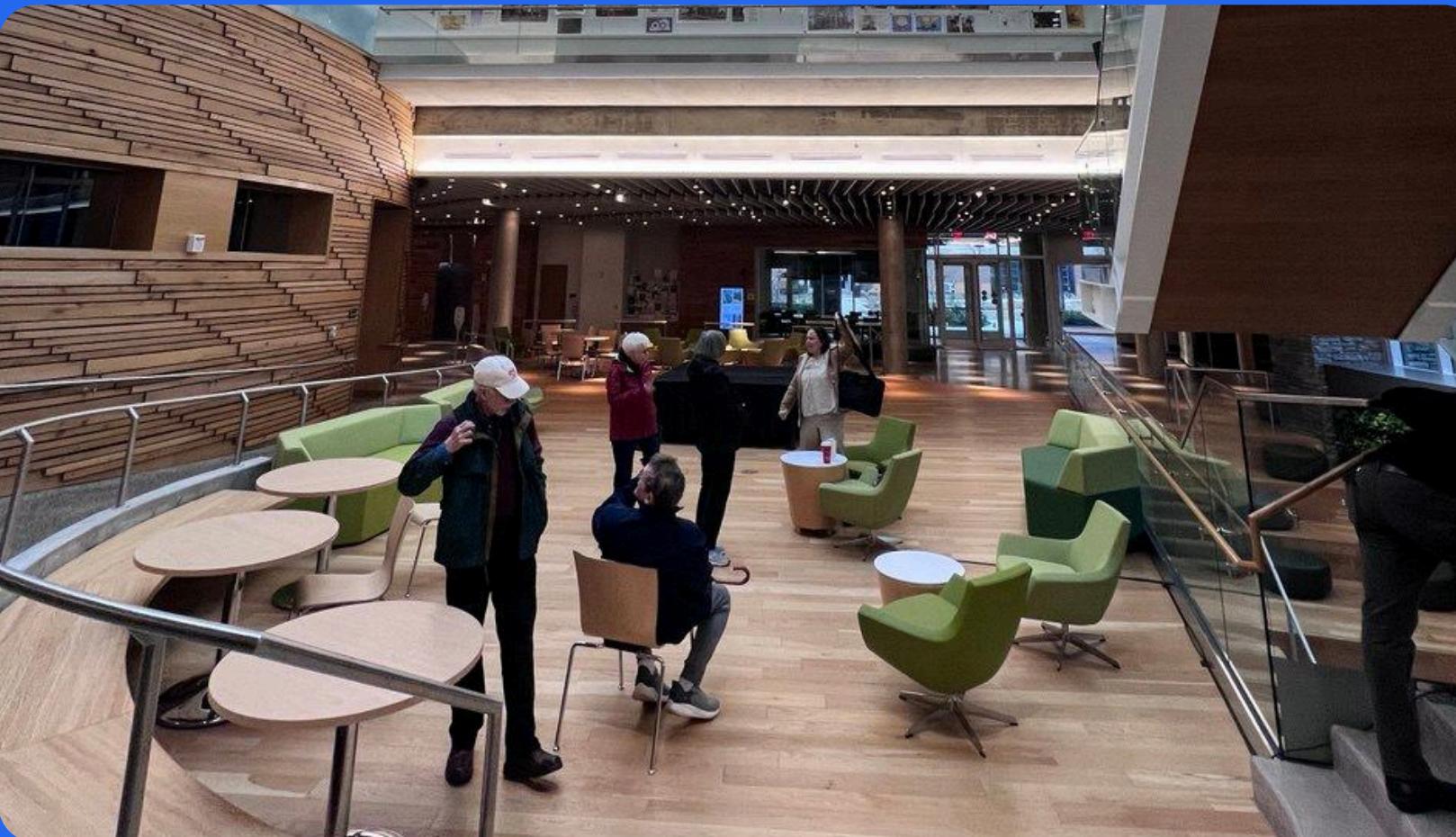
- Mixture in tools being used by volunteers (majority are using pen & paper, minority using phones or laptop while conversing with students)
- Noticed a volunteer opening a document on Microsoft Word and taking notes on a notepad while the students are using Google Docs

Opportunity

- Onboarding guides for volunteers when interacting with unfamiliar tools.
- Third party app-onboarding tools like Guidde for AI video tutorials.

Challenges & Opportunities

Identifying and addressing barriers faced by volunteers



Reliance on coordinator for **guidance** and **instructions**

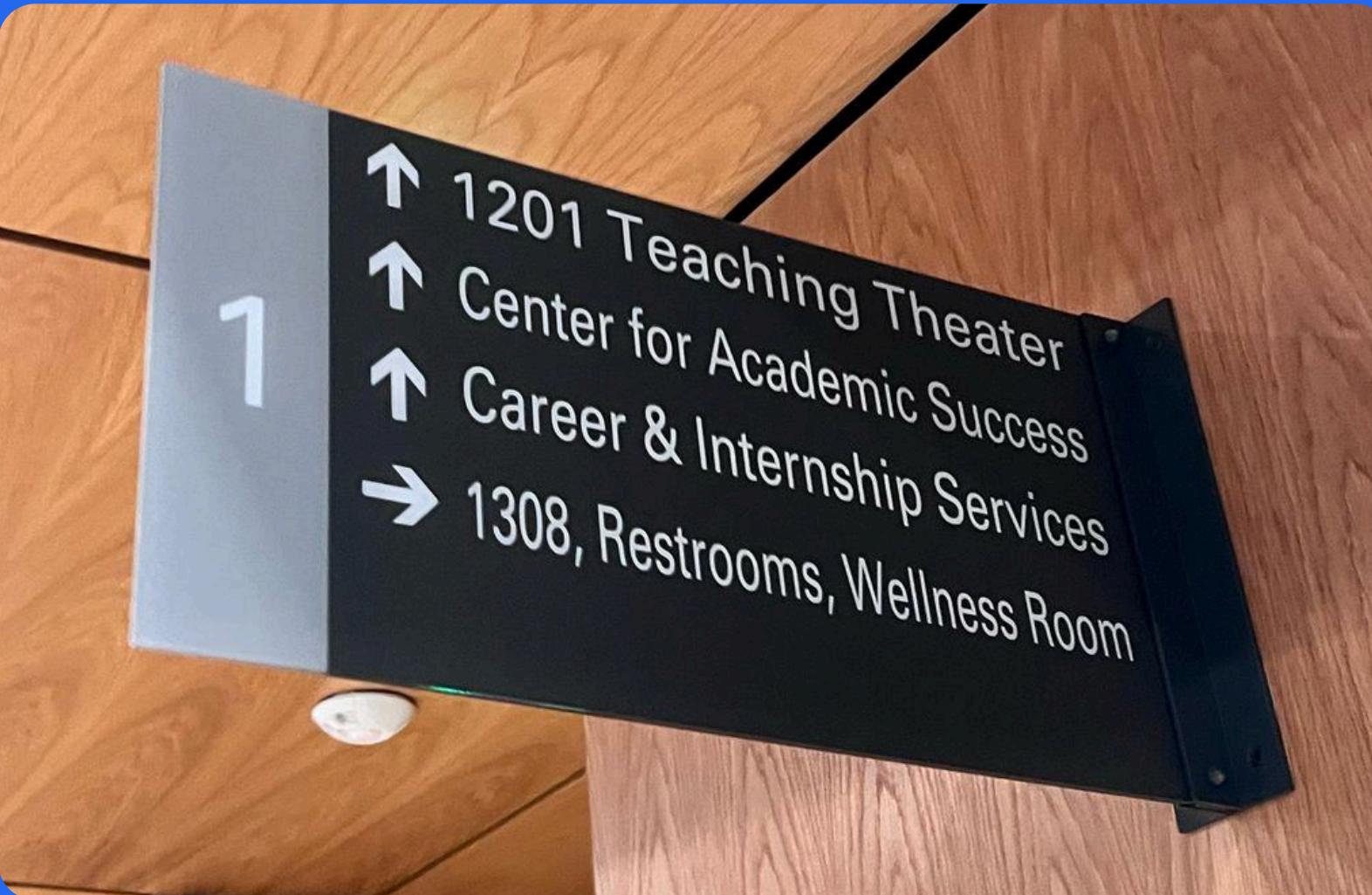
- Noticed coordinator repeating instructions to redeem free parking multiple times.
- Coordinator giving out instruction sheets in class to volunteers.

Opportunity

- Volunteers can access parking instructions and class agendas before coming for the class visit, reducing reliance on the coordinator.

Challenges & Opportunities

Identifying and addressing barriers faced by volunteers



Insufficient signages to guide volunteers around the campus and within buildings

- Upon arrival, the coordinator escorted volunteers to the classroom; however, a **first-time volunteer became lost returning to the lobby alone**
- Insufficient signage upon exiting the elevator leaves individuals **uncertain about which direction to take**

Opportunity

- Video tours of the path from building entrance to classroom.
- Clearly visible signs within the volunteer's eyeline.

Challenges & Opportunities

Identifying and addressing barriers faced by volunteers



Campus infrastructure presents several **challenges** for senior volunteers, impacting their volunteering experience

- **Outdoor Parking Ticket Scanners:** Malfunction during rain, causing delays and frustration.
- **Wi-Fi Access:** Requires hourly logins, leading to frequent disconnections and hindering communication.

Opportunity

- Encourage students to use the elevator when they are with volunteers
- Extend session duration for campus guest Wi-Fi
- Ensure that parking ticket scanners are weather-resilient

What did we
create?

Volunteer Handbook



volunteer handbook

A guide for your time at Shady Grove.



Map of Campus



Via Shady Grove Rd

- ↑ Turn left onto Gudelsky Way
- In 499 ft
- ↑ Turn left onto Gudelsky Dr
- In 381 ft
- ↑ Turn left to stay on Gudelsky Dr
- In 0.1 mi
- ↑ Turn right: Building 4 will be on the right

Via Darnestown Rd

- ↑ Turn right onto Traville Gateway Dr
- In 0.2 mi
- Take the 3rd exit onto Gudelsky Dr
- In 295 ft
- ↑ Continue straight
- In 213 ft
- ↑ Building 4 will be on the right

3

Digital Tool Guide

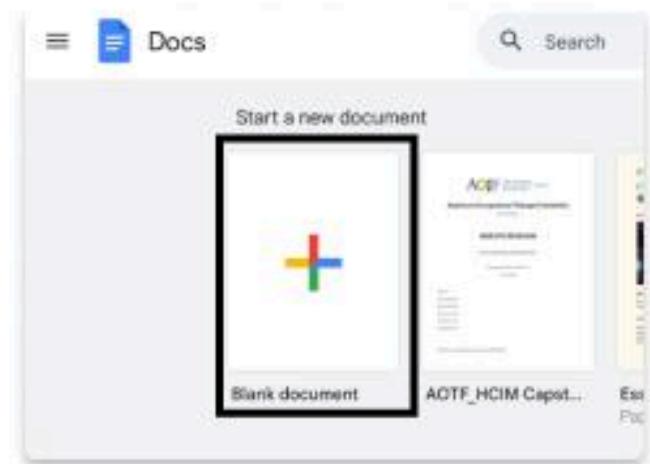
Google Docs on Desktop

To access Google Docs:

1. Open a web browser and type in "docs.google.com" at the address bar
2. Log in with your Google account.

Creating a new document:

- Click the "blank document" option.
- Give your document a descriptive title.

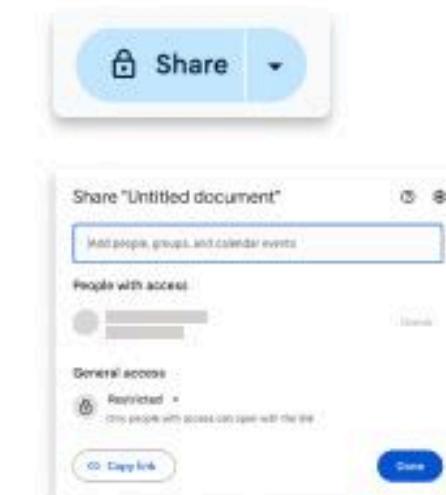


Saving and accessing documents:

- Google Docs automatically saves your document as you type.
- To find your saved documents, go to your Google Drive by typing in "drive.google.com" at the address bar

Sharing documents with others:

- Click on the "Share" button with a lock, on the top right hand corner of your screen
- Enter the email address of the person you want to share with in the "Add people, groups and calendar events".
- Choose the level of access (can view, can edit, etc.).



7



Guide for Students

Collaboration with Empower the Ages

Welcome to the new semester!

In this course, you will have the unique opportunity to collaborate with senior volunteers—experienced professionals who bring a wealth of knowledge, insights, and life experiences to your projects.

Working with senior volunteers is a rewarding experience, but it also requires thoughtful communication, patience, and adaptability. To ensure a smooth and productive partnership, this document provides key guidelines on effective communication, using digital tools, and accessibility considerations.

Who are the volunteers?

We have 14 volunteers joining us through the Empower the Ages initiative. They are seniors who are now retired, volunteering their time to engage in our team projects.

Guidelines for working with senior volunteers

1. Communication best practices

- a. **Be patient and clear** – Speak at a moderate pace, enunciate clearly, and avoid jargon or overly casual digital slang.
- b. **Prefer face-to-face or scheduled calls** – Ask your senior volunteers if they prefer in-person discussions or scheduled video/phone calls or online chats. Find the way that works best for your entire team, and make sure to help your volunteer navigate any difficulty in using a tool or app.
- c. **Be proactive in engagement** – Don't wait for the volunteer to reach out; keep them informed and included in discussions.

Guidelines for working with senior volunteers

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- c. **Be proactive in engagement** – Don't wait for the volunteer to reach out; keep them informed and included in discussions.

2. Tools and Technology

- a. **Choose simple, accessible tools** – Use platforms with easy interfaces (e.g., Zoom, Google Docs, email) and provide guidance if needed.
- b. **Assist with setup if necessary** – Offer help with logging in, screen-sharing, or navigating digital workspaces, should they need it.
- c. **Be mindful of response times** – Some volunteers may not check emails or messages frequently; establish preferred contact methods early on.
- d. **Google Docs** - We have provided the seniors with instructions on how to use Google Docs for collaboration, so you can work with them online and asynchronously through the semester. Make sure to include visuals and stick to the accessibility guidelines that follow.

3. Accessibility Considerations

- a. **Use readable materials** – Provide large font options and avoid overly complex visuals in presentations or shared documents.
- b. **Be flexible and accommodating** – Adapt to any specific needs, such as extra time for note-taking or alternatives to digital collaboration.

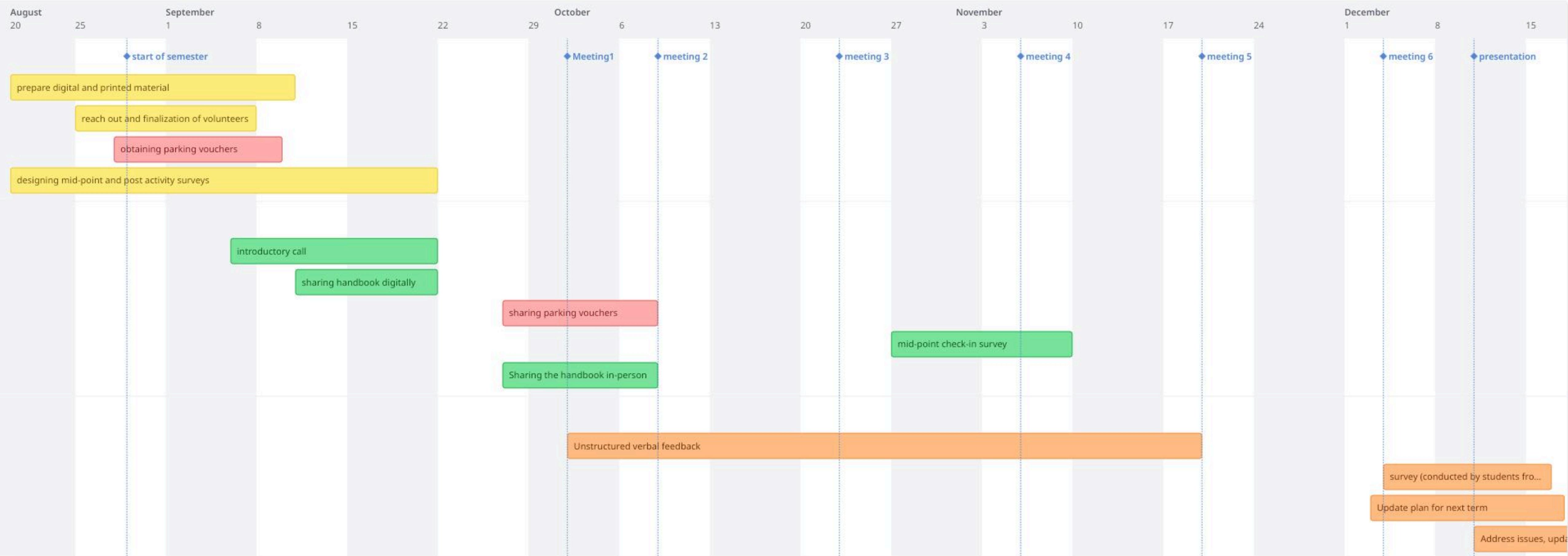
Implementation Plan

Plan

Feedback

Implement

Dependencies



Questions?

Recommendations for
Improvement

Open floor for any questions
or feedback

Thank You

