

Research Report



University of Maryland,
College of Information
UMD IC25058

Understanding the Challenge

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

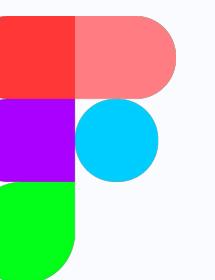
Key concerns:

- 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

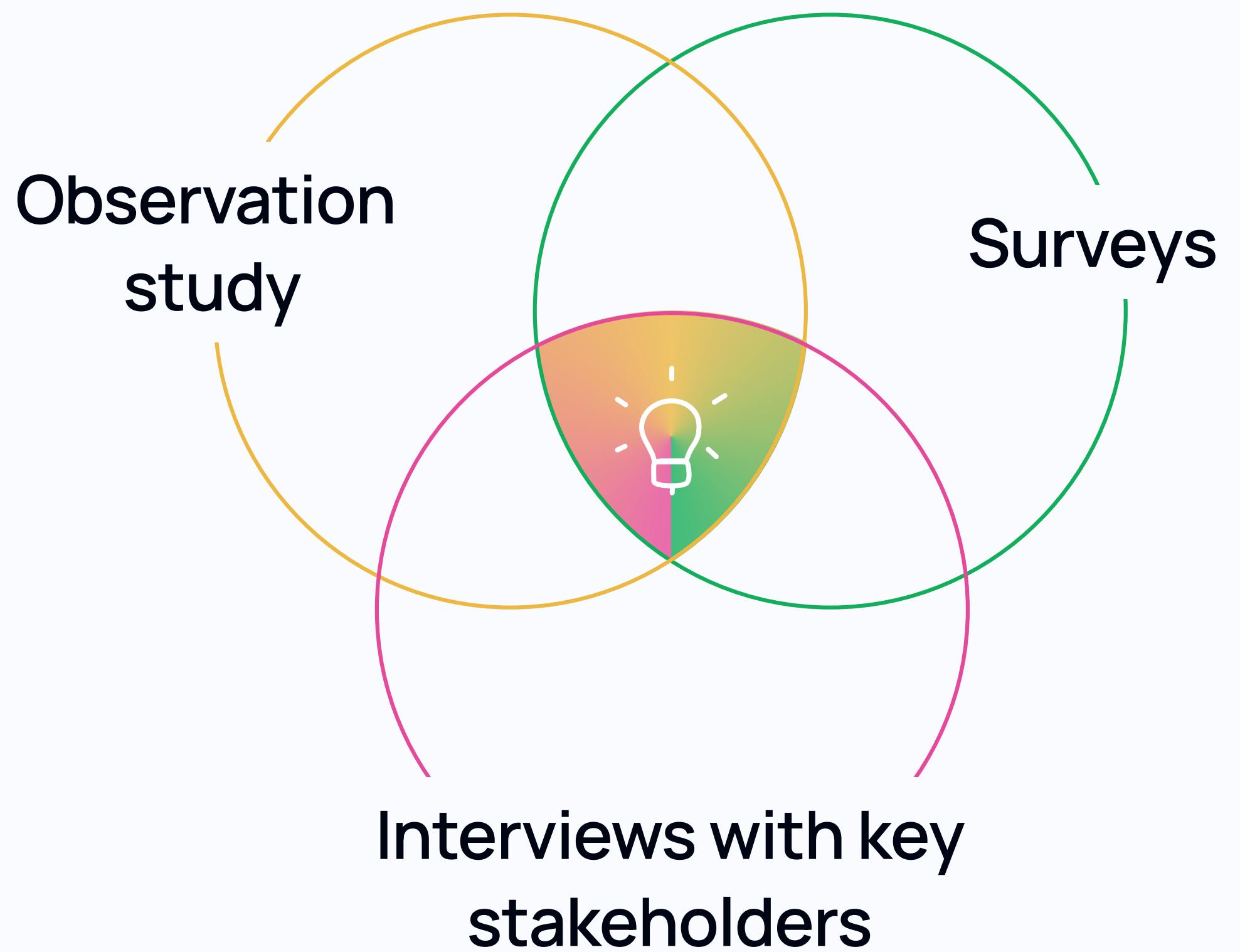
(campus navigation, class interactions)

Surveys (n=6)

(experiences with parking, digital tools, navigation)

Interviews with key stakeholders

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



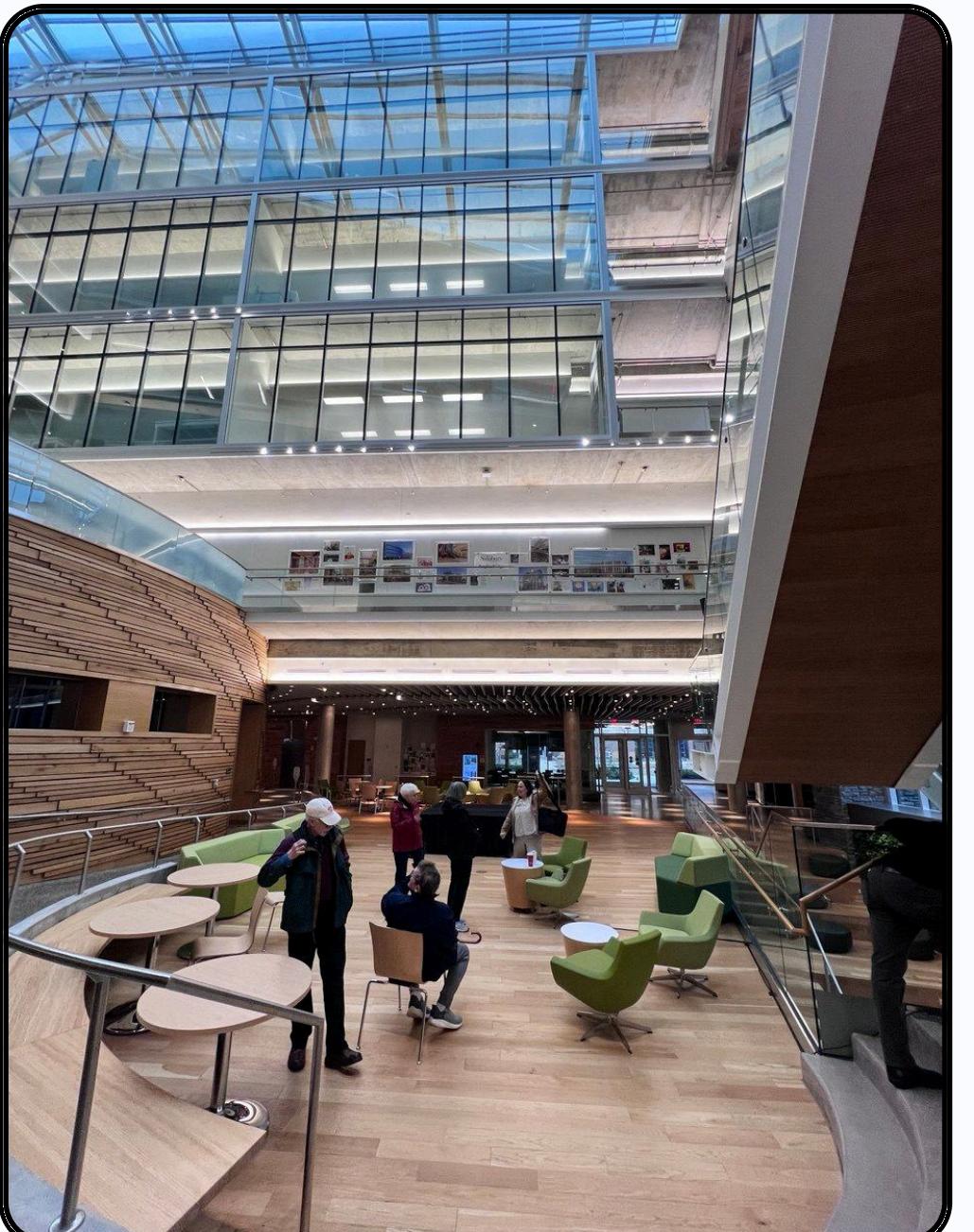
Observational Study

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

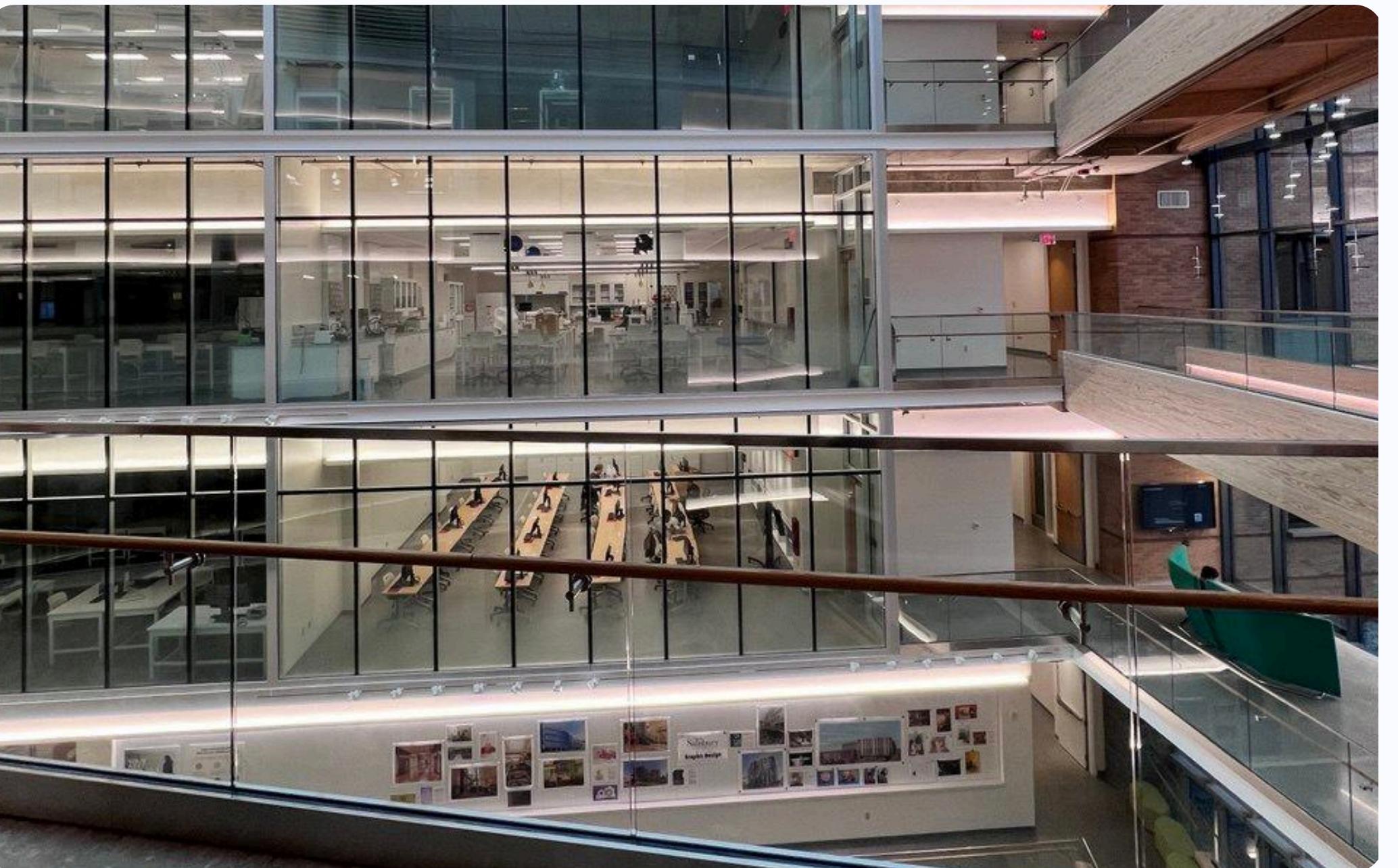
- Arriving on campus and obtaining a parking pass
- Navigating from the parking lot to the classroom
- Observing way finding challenges (signage, elevators, stairs)
- Identifying accessibility barriers in pathways and entry points



Observational Study

What We Observed

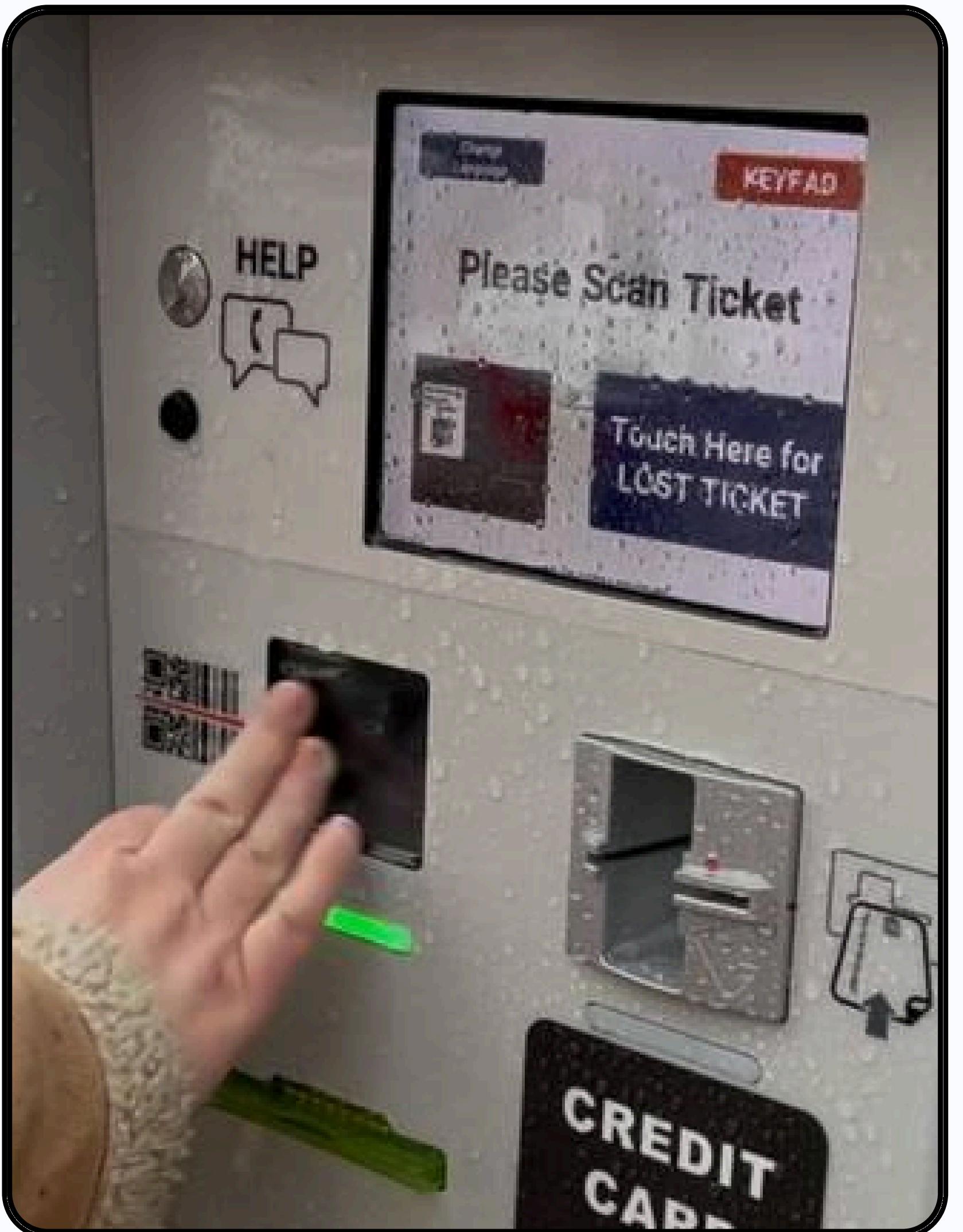
- **Mix modality of tools** used to facilitate communication and collaboration used by volunteers in class
- **Different levels of engagement** volunteers had with students, from playing the role of the **observer** to conversation **initiators**
- Reliance on **physical guidance** (students, coordinators)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



Interview Insights

What We Learned from Interviews

- Seniors express a **strong desire to engage** but face technological barriers
- Students acknowledge **challenges in communication and collaboration**
- Faculty insights on the need for **structured onboarding and training**
- Suggestions for improving **accessibility resources**

Learning curve on both end - how Vs prefer communication, how UGs prefer communication

Supplementary Research

General Findings

Survey Insights

What We Learned from Our Survey

- Internet access on campus expires every hour, causing disruption
- Seniors prefer email, printed materials, and personal meetings
- "Personal meetings are great for understanding tasks better."
- "Working with the students and seeing them excited about projects has been rewarding."

Survey Insights



Navigation difficulties
due to lack of signage



Struggled with real-time
collaborative tools



Interacting with students and
brainstorming was valuable

Research Synthesis

What Problem Are We Solving?

- Enhancing digital tool accessibility for seniors
- Strengthening communication between students and seniors
- Improving wayfinding and signage for easier campus navigation
- Establishing structured onboarding and tech support for seniors

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**.

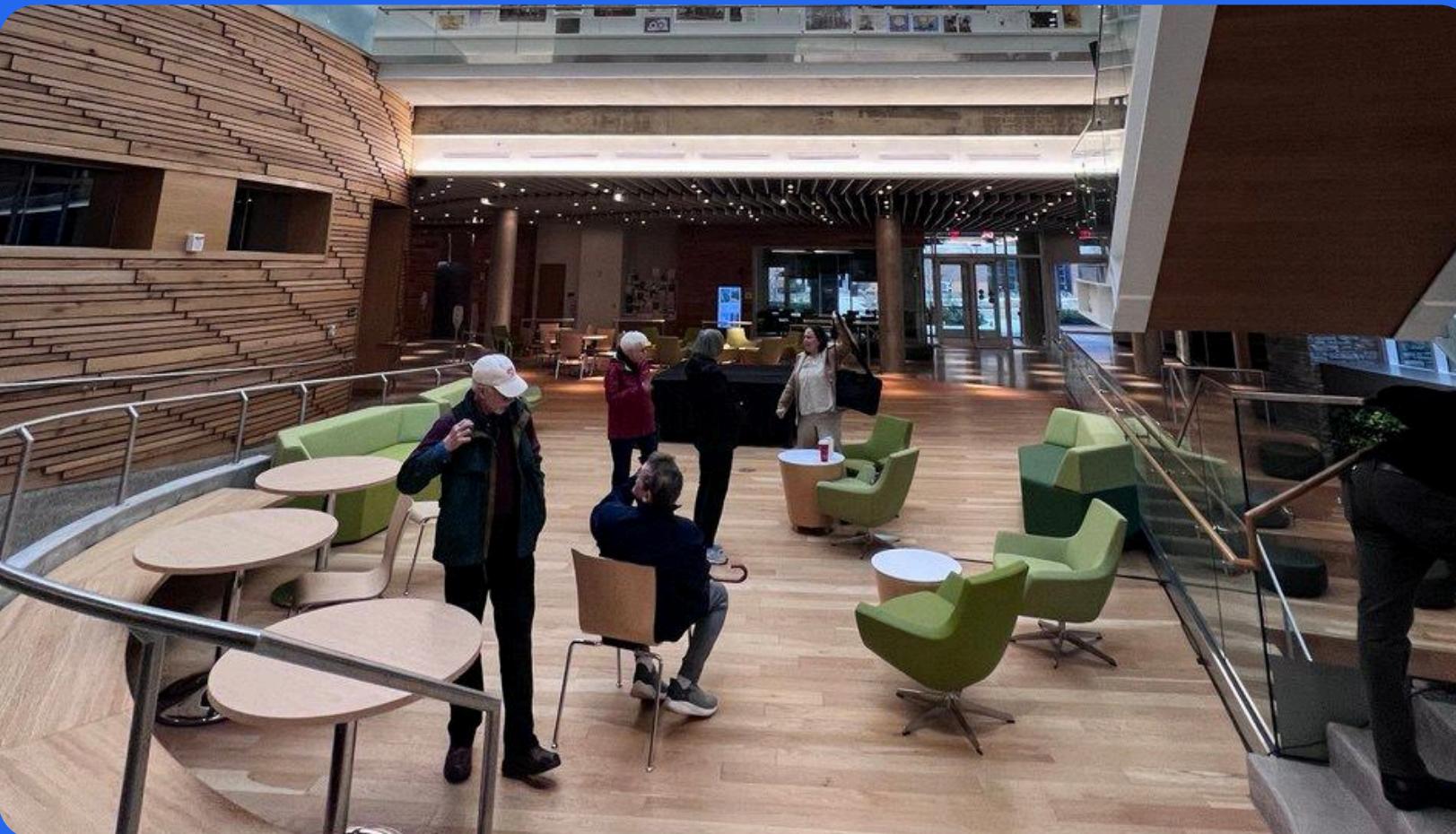
- Mixture in tools being used by volunteers (majority are using pen & paper, minority using phones or laptop while conversing with students)
- Noticed a volunteer opening a document on Microsoft Word and taking notes on a notepad while the students are using Google Docs

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**

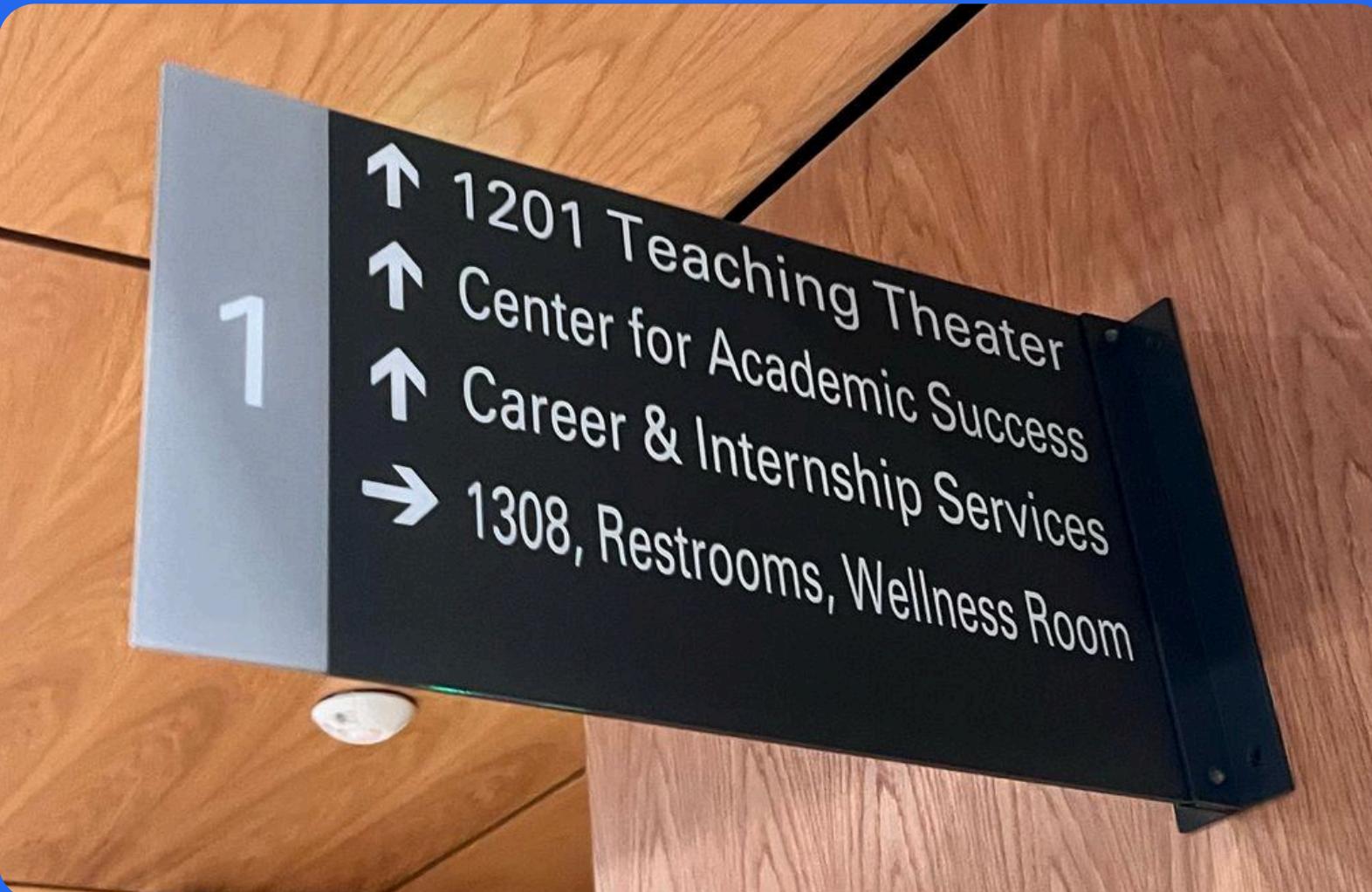
- Noticed coordinator repeating instructions to redeem free parking multiple times.
- Coordinator giving out instruction sheets in class to volunteers.

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

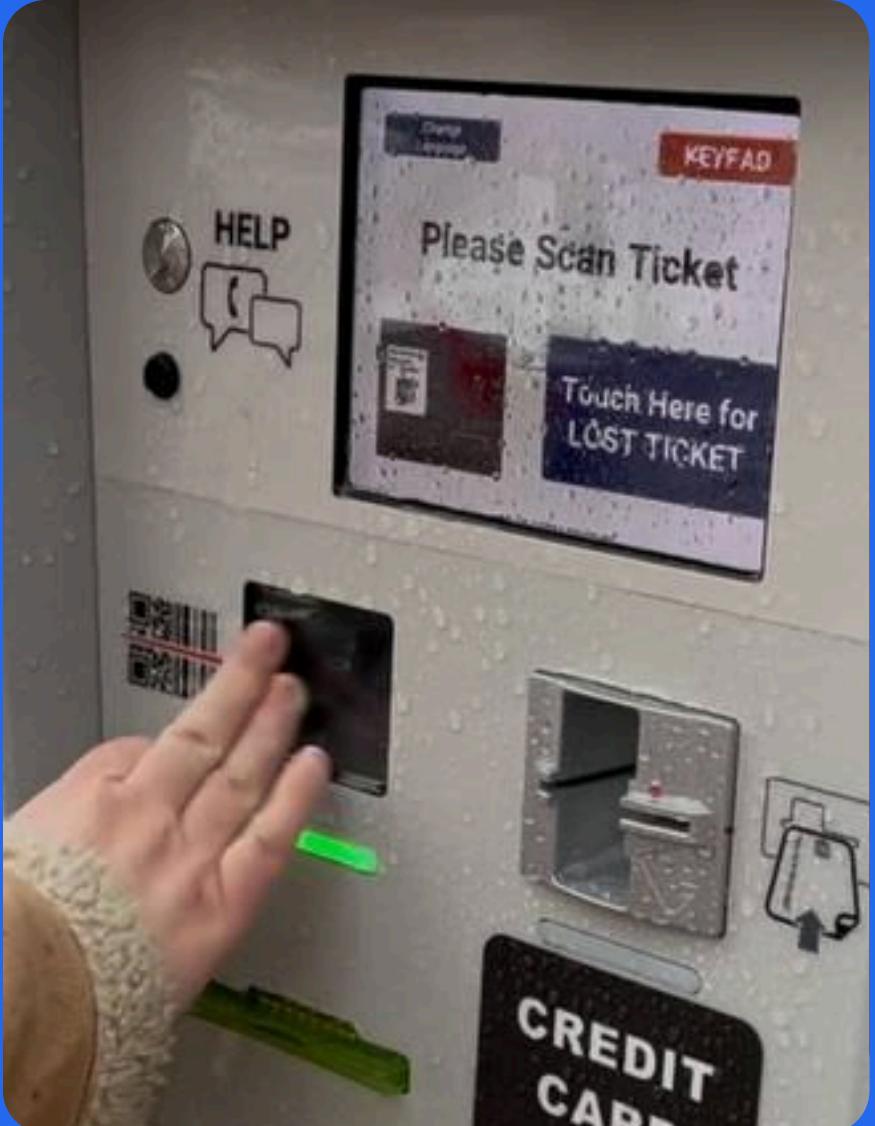
- Upon arrival, the coordinator escorted volunteers to the classroom; however, a **first-time volunteer became lost returning to the lobby alone**
- Insufficient signage upon exiting the elevator leaves individuals **uncertain about which direction to take**

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

Thank You

