

## Lab 2 – Scenarios and Contextual Inquiry/Questions

Submit by Wednesday Feb. 7 11:59pm

|                    |   |
|--------------------|---|
| Project Team Name: | Group B – Find My Way                             |
| Present Members:   | Vishesh Patel, Princess Kachhadiya, Kruti Panchal |
| Interviewer:       | Vishesh Patel                                     |
| Note taker:        | Kruti Panchal                                     |
| Participant:       | P1  |

**Theme 1:** Landmark Identification and Markings

**Scenario:** You are organizing a campus event and need to provide directions to various venues and facilities for attendees.

**Questions:**

- 1) **Can you describe a time when you organized or attended a campus event where providing directions to various venues and facilities was important?**

**Answer:** I was a volunteer in an academic workshop last year. We had many sessions in different buildings, and the campus is huge. Some buildings look similar. We tried our best with maps and signs, but it was a challenging.

- a. **What were some of the challenges you faced in ensuring attendees could easily navigate the event?**

**Answer:** For outside navigation the maps did their job. But in inside navigation people were constantly asking for directions. It was especially tough for the new people, who had never been to our campus before.

- 2) **Can you share any feedback or experiences from event attendees regarding the effectiveness of the directions provided and their overall navigation experience during the event?**

**Answer:** Yeah, so the attendees did like the maps and signs, but they said how tough it was to navigate indoors. Some suggested we should've had more detailed indoor maps.

- a. **Were there any common pain points or areas for improvement identified based on attendee feedback?**

**Answer:** Indoor navigation was the biggest pain point. They hoped for better indoor navigation.

\*If the user mentions using app for navigation

- 3) **If you were to have a navigation app in this kind of situation, how would you direct the attendees to their venues or how will you share this information/app/map?**

**Answer:** If we had a navigation app, that would've been easier. I would've put the whole event schedule in it, with locations and everything.

**a. How would you make sure that the attendees know that they are at the right place?**

**Answer:** A 'you've arrived' feature in the app would've been great. Like, you reach the venue, scan a QR code attached at the entrance and the notification would pop-up.

**Theme 2:** Indoor Navigation

**Scenario 1:** Imagine you're a new student at a university with a sprawling campus. Today, you have classes in multiple buildings you're not familiar with. You need to locate lecture halls, the library, and other key facilities inside these buildings.

**Questions:**

- **When navigating inside university buildings, how do you typically find specific locations like lecture halls or libraries?**

**Answer:** So, when I'm trying to find places inside university buildings, there are boards at the entrances and some signs I try to follow. If there are no boards or signs, I ask people around.

**a. What challenges do you encounter in this process?**

**Answer:** The biggest challenge is the time it takes. Especially in big buildings, It is really difficult when no proper signs are navigation is provided.

- **Have you used any indoor navigation apps for this purpose? If yes, how was your experience?**

**Answer:** No, I have never used any application. Always rely on signs or people.

**a. What features did you find most useful or lacking?**

**Answer:** Never used application

- **If you haven't used an indoor navigation app, what has prevented you from doing so?**

**Answer:** Never found any reliable app. Following signs and asking people for way always worked for me. Yes, but it was time consuming.

**a. What features would encourage you to use such an app?**

**Answer:** It should be easy to use and provide path to the provided destination. Also

**if it provides the shortest path. It would be the best option.**

- **How would you prefer to receive directions in the app - through visual maps, audio instructions, or a combination of both?**

**Answer:** I think visual maps would be best. So, i can see in the screen and follow. If the place is noisy then audio instruction might not be helpful.

- a. **Follow-up: Why do you prefer this method?**

**Answer:** With visual maps, I can see the map and the path both. So, it will be easier to understand the layout.

**Scenario 2:** Imagine you're a BVI individual visiting a large public library for the first time. You need to locate specific sections, the help desk, and accessible reading areas.

**Questions:**

- **As a BVI individual, what techniques or tools do you use for indoor navigation in unfamiliar environments like a library?**

**Answer:** I normally ask people around. But sometimes I use apps made for people like me.

- a. **Can you describe a recent experience where you had to navigate a new indoor environment?**

**Answer:** Yes, had to find a way in a mall.

- **Have you used specialized indoor navigation apps?**

**Answer:** No, I have not used any app

- a. **What was your experience in terms of ease of use and accuracy?**

**Answer:** Not applied

- **What specific features do you look for in an indoor navigation app designed for BVI users?**

**Answer:** The application who can properly listen to my voice, understands it and properly provide instructions can be helpful.

a. How do these features assist you compared to standard navigation methods?

Answer: The app which gives proper instruction by talking can be helpful.

- How important is the integration of voice assistants or tactile feedback in an indoor navigation app for you?

Answer: They're super important. They tell me things I can't see

a. Can you give an example of how voice or tactile feedback has helped you in navigation?

Answer: Once, a talking app helped me get out of a busy mall. It was helpful.

- Would you prefer an app that allows customization based on the level of visual impairment?

Answer: Yes, It is really a good idea.

a. How would such customization improve your navigation experience?

Answer: Customizing the app for my eyesight makes it work better for me, like it understands what I

need.

### Theme 3: Routing Preview

**Scenario:** Consider you as a freshman at a university with a huge campus, and who have back-to-back classes in different buildings. Navigating between them can be challenging, especially if one is unfamiliar with the campus layout. Today, you're running late for your next class and need to find the shortest route to get there on time.

#### Questions:

- 1) If you were in a situation where you couldn't use your phone or a navigation app due to lack of data, how would you navigate between buildings on campus to ensure you arrive on time for your classes?

Answer: I would ask people around for directions or look for campus maps on bulletin boards.

a. What alternative methods would you consider using in this scenario? Have you ever encountered a similar situation before?

Answer: I've used printed maps before and sometimes just followed the crowd to find my way.

- 2) Reflecting on your experiences navigating on campus, what strategies have you found most effective in finding the quickest route between buildings?

Answer: I remember landmarks and try to use the same paths that seemed shorter before.

- a. Have you noticed any patterns or shortcuts that tend to make navigation easier?

Answer: Yes, I always try to find short paths and for some cities try to understand pattern. It makes navigation easy.

- b. How do you balance speed with familiarity when choosing a route?

Answer: I use the regular path that I usually take, but when I get late I try to take shortcut.

- 3) In a high-pressure situation where you're running late for class, how do you prioritize between finding the quickest route and ensuring you don't get lost?

Answer: If I'm very late, I risk taking a quicker unknown route over a familiar longer one.

- a. Can you describe a specific instance when you had to make this decision? How did you manage the time pressure while navigating?

Answer: Once, I took a new shortcut to an lecture, focusing on signs and asking people along the way to make sure I was right.

- 4) Suppose you had access to a campus navigation app specifically designed to help freshmen navigate between buildings efficiently. What features or functionalities would you expect or hope to find in such an app?

Answer: I would want the app to show real-time shortest routes and integrate my class schedule. Also along with outside the inside navigation will also be useful. As sometimes it is really difficult to find a class in a building.

- a. How do you think this app could enhance your navigation experience compared to traditional methods? Would you prioritize certain features over others?

Answer: This app could save me time by giving direct routes and updates on any path changes, better than guessing or asking around.

**Answers:**

- 1) if I couldn't use my phone or an app because of no data, I'd probably go old school. You know, like asking people around – other students, staff, anyone really. I've done it before when my phone died.

It's hit or miss, but most times, people are helpful. Or I'd look for those big campus maps they sometimes have at building entrances.

A) Other methods? Well, I've sometimes followed the crowd, especially during class change times. If a bunch of people are heading in a direction, chances are they're going to a popular building or area. I remember once I had to get to the science building, and I just followed a group of students who looked like science majors. It actually worked!

2) To find the quickest route, I usually try to remember the paths I've taken before that seemed shorter. It's about noticing landmarks or unique features that make it easier to remember the way. Also, sometimes there are unofficial shortcuts, like a path through a park or an alley that's not on the official maps."

A) When I'm in a rush, I usually go with the route I know best, even if it might not be the shortest. I mean, it's better to be a bit late than totally lost, right? But if I'm really, really late, I might take a chance on a shortcut, especially if I've heard others talk about it or seen it on a campus forum or something."

3) I remember this one time, I was super late for a class. I had two options: the usual route I knew, which was longer, or a shortcut I wasn't sure about. I ended up taking the shortcut. It was stressful 'cause I wasn't 100% sure where I was going, but I kept an eye out for familiar landmarks and made it just in time. It was a risk, but I had to weigh it against how late I was going to be.

A) If there was an app specifically for freshmen to navigate the campus, I'd expect it to be really user-friendly. Like, it should have a simple interface and show the shortest routes clearly. Maybe it could also have a feature where you can input your class schedule, and it automatically suggests the best routes for the day. That would be super helpful.

4) I think such an app could make a huge difference. Like, compared to asking around or guessing, having a reliable digital guide would save so much time and stress. I'd prioritize features like real-time updates, especially if there's construction or a path is closed, and maybe even crowd-sourced info like 'hey, this hallway is super crowded right now.' That kind of real-time help would be a game-changer.

### General Questions:

- 1) What considerations should be taken into account when designing campus navigation systems for campuses with diverse layouts and geographical features?

Answer: As a visually impaired person, I need a navigation system with detailed audio descriptions for different things, like hills or steps. It's essential for the system to guide me through voice directions and inform about accessible paths clearly.

- 2) What are some common pain points or challenges that users typically encounter when navigating a large campus, and how can technology help address them?

Answer: I often get lost because of confusing signs and path closures. It would be great if the app informs me about construction and suggest different routes. And indoor maps would be a helpful for big buildings.

- 3) How can campus navigation systems support emergency preparedness and response efforts on campus?

Answer: In an emergency, I'd want the app to quickly show me where to go, like the nearest exit or a safe spot. Real-time alerts about what's happening and where to avoid would be crucial for safety.