Lab 2: Empathy Building and User Understanding

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Course: Design Thinking

Scenario: Public Transport Issues

Context

Urban bus users in **Bengaluru (Bangalore)** often face difficulties at bus stops due to the absence of clear information such as bus routes, arrival timings, destination details, and service updates. Studies on public transport service quality in Indian cities show that lack of information and uncertainty during waiting time significantly affects passenger satisfaction and trust in public transport systems. This lab helps students understand real commuter problems and design empathetic, user-centered transport information solutions.

STEP 1: Define the Target User

Task:

Identify the bus stop user group.

Example:

Age: 18–65 years

Occupation: Students, office workers, daily wage workers, elderly commuters

Location: **Bengaluru (Bangalore), India**

Transport Dependency: High (daily BMTC bus usage)

Digital Literacy: Low to Medium

Services Used: BMTC city buses, feeder buses, public transport apps (limited usage)

STEP 2: List Initial Assumptions

Students write assumptions before interacting with users.

Sample Assumptions:

1. Bus users rely on mobile apps for bus timing information
2. Waiting without information is a normal part of bus travel
3. Lack of information causes only minor inconvenience
4. Elderly users prefer avoiding buses
5. Passengers adjust their routine easily to delays

Output:

Assumption Table

ID	Assumption
A1	Passengers depend mainly on mobile apps for bus information
A2	Waiting without information does not cause stress
A3	Missing displays are only a small inconvenience
A4	Elderly passengers avoid public buses

STEP 3: Prepare Interview Questions

Design simple, respectful, open-ended questions.

Sample Interview Questions:

1. What information do you usually look for at a bus stop in Bengaluru?
2. Have you ever waited longer because there was no timing information displayed?
3. How does not knowing the next bus arrival affect your daily commute?
4. Do you use any app to check BMTC bus timings? Why or why not?
5. Have you ever missed or boarded the wrong bus due to lack of information?
6. What information would make waiting easier at a Bengaluru bus stop?

STEP 4: Conduct User Interview

Instructions:

Refer to real commuter studies and survey findings.

Observe:

Confusion during waiting

Repeated checking of the road

Dependence on other passengers

Emotional reactions to delays

Example Observation and Quotes (from commuter surveys and studies):

- Bengaluru bus users frequently report uncertainty and stress when arrival information is unavailable.
- Passengers express dissatisfaction when they cannot estimate waiting time at bus stops.

Exact user statements reported in surveys:

- "Not knowing when the bus will arrive makes the wait feel much longer."
- "Reliable information at the bus stop would reduce daily stress."
- "I feel uncertain whether I should keep waiting or find another option."

Output:

Interview notes & quotes

STEP 5: Create Empathy Map

Based on interview responses and survey findings, fill the Empathy Map.

1️⃣ SAYS

1. "There is no clear information about when the next bus will arrive."
2. "I often wait without knowing whether the bus is delayed."

3. “Bus stop information is unreliable or missing.”

2 THINKS

1. “I might be late today because the bus is unpredictable.”
2. “I need better information to plan my commute.”
3. “Public transport would be easier if timings were visible.”

3 DOES

1. Looks repeatedly down the road for approaching buses
2. Checks mobile apps despite accuracy issues
3. Asks other passengers or conductors for information
4. Considers alternative transport when waiting feels uncertain

4 FEELS

1. Confused
2. Frustrated
3. Stressed
4. Uncertain
5. Low confidence in trip planning

STEP 6: Validate Assumptions

Compare interview results with assumptions.

Assumption	Validated?	Reason
Passengers rely on mobile apps	❌	Many Bengaluru users report apps are inaccurate or unreliable
Waiting causes no stress	❌	Users report anxiety due to uncertainty
Missing displays are minor	❌	Information gaps strongly affect satisfaction
Elderly avoid buses	❌	Elderly users want independence but need clarity

STEP 7: Identify User Insights

Convert observations into deep insights.

Examples:

1. Bengaluru bus users value predictability more than speed
2. Uncertainty increases perceived waiting time and frustration
3. Visible information at bus stops builds trust in BMTC services
4. Lack of information reduces confidence in daily travel planning

❌ “Passengers are impatient”

✅ “Passengers feel stressed when they cannot predict their journey”

STEP 8: Create User Persona

Sample Persona:

Name: Suresh Kumar

Age: 39

Occupation: Office Assistant

Location: **Bengaluru**

Transport Mode: Daily BMTC bus commuter

Goals:

1. Reach office on time
2. Plan commute confidently

Pain Points:

1. No arrival time information
2. Unclear route details
3. Dependence on others for basic information

Motivations:

1. Job reliability
2. Stress-free daily travel

Quote:

“Knowing when the bus will arrive would make my daily commute much easier.”

STEP 9: Translate Insights to System Needs

Insight	System Requirement
Uncertainty causes stress	Bus arrival time display
Route confusion	Clear route and destination boards
Low trust in apps	Physical information at bus stops
Planning difficulty	Predictable and updated information

STEP 10: Reflection & Documentation

Students answer:

1) **What surprised you during the interview?**
    a) → The level of stress caused by uncertainty at Bengaluru bus stops.
2) **Which assumption was wrong?**
    a) → That passengers accept waiting without information.
3) **How did empathy change your thinking?**
    a) → It showed that missing information affects confidence and trust, not just time.
4) **How will this affect your design approach?**
    a) → I will focus on clarity, reliability, and user confidence before adding technology.

Expected Lab Outputs

✓ Interview Questionnaire

✓ Empathy Map

✓ Validated Assumptions

✓ User Insights

✓ Bus User Persona

✓ System Requirement Mapping

Design Thinking Phase Mapping

Phase	Activity
Empathize	Interviews, Empathy Map
Define	Insights, Persona
Ideate	Requirements
Prototype	Next Lab
Test	Next Lab