5.1. Identifying and Writing Problem Statements

Introduction:

- In UI/UX design, a **problem statement** clearly defines the user's problem that the design aims to solve.
- It acts as a foundation for the entire design process, guiding research, ideation, prototyping, and evaluation.
- A well-written problem statement ensures that the design is **user-centered**, not solution-biased.
- Identifying the right problem is more important than quickly jumping to a solution.

Meaning of a Problem Statement:

- A problem statement is a **concise description of a specific user problem**.
- It explains **who** is facing the problem, **what** the problem is, **when/where** it occurs, and **why** it matters.
- It avoids mentioning solutions, technologies, or design elements.
- It focuses on **user needs, pain points, and goals**.

Importance of Problem Statements:

- Helps designers clearly understand user needs and expectations.
- Prevents assumption-based or designer-centered solutions.
- Provides a shared understanding among designers, developers, and stakeholders.
- Guides usability testing and design evaluation.
- Saves time and resources by addressing the correct problem.

Elements of a Problem Statement:

A good problem statement consists of the following key elements:

1. Background of the Problem:

This explains:

- Where the problem exists.
- Why the problem has arisen.
- The organizational or system context.

This information is usually gathered during the **discovery or research phase**.

2. People Affected by the Problem:

- Identifies the **primary and secondary users.**
- Explains how the problem impacts users.
- May include internal stakeholders such as employees who deal with user complaints.

3. Impact of the Problem on the Organization.

- Describes the consequences if the problem is not addressed.
- Includes effects such as:
    - Loss of revenue.
    - Decreased user satisfaction.
    - Increased operational cost.
    - Damage to brand reputation.

In some cases, the impact can be quantified to emphasize severity.

Identifying Problems:

1. User Research:

- Conduct interviews, surveys, and questionnaires.
- Observe users in real environments (contextual inquiry).
- Identify user frustrations, difficulties, and unmet needs.

2. User Personas:

- Create fictional representations of real users.
- Identify goals, behaviors, motivations, and pain points.
- Helps focus the problem on a specific user group.

3. User Journey Mapping:

- Map the steps users take to achieve a goal.
- Identify pain points, delays, confusion, and drop-off points.
- Helps locate where users face maximum difficulty.

4. Usability Testing:

- Observe users interacting with existing systems.
- Identify errors, confusion, and inefficiencies.
- Collect qualitative and quantitative feedback.

5. Stakeholder and Business Analysis:

- Understand business goals and constraints.

- Align user problems with organizational objectives.
- Avoid conflicts between user needs and business needs.

Characteristics of a Good Problem Statement:

- **User-centered** – focuses on users, not the system.
- **Clear and specific** – avoids vague descriptions.
- **Evidence-based** – supported by user research data.
- **Solution-free** – does not suggest a design or feature.
- **Actionable** – provides direction for design decisions.

Problem Statements as Opportunities:

Problem statements do not always highlight negative issues; they can also identify **opportunities for improvement**.

Example:

- The home-buying process involves multiple offline steps, making it slow and complex.
- This creates an opportunity to simplify the process, improve customer satisfaction, and increase sales.

Point of View (POV) in Problem Statements:

- A **POV** is a meaningful and actionable problem statement written from the **user's perspective**.
- It ensures empathy and avoids bias. A strong POV helps teams approach the problem in the right way and inspires innovative thinking.

Structure of a UI/UX Problem Statement:

A well-structured problem statement generally includes:

- **User**: Who is experiencing the problem?
- **Need**: What does the user need or want to achieve?
- **Problem**: What is preventing the user from achieving the goal?
- **Impact**: Why is this problem important?

Common Template:

- "**[User type]** needs a way to **[achieve goal]** because **[reason/problem]**."

Writing Problem Statements:

Step 1: Define the User.

- Clearly identify the target user or user group.

- Avoid generic terms like "everyone" or "all users".

Step 2: Describe the User's Goal.

- Explain what the user wants to accomplish.
- Focus on outcomes, not tasks.

Step 3: Identify the Pain Point.

- State the difficulty or obstacle faced by the user.
- Use insights from research and observation.

Step 4: Explain the Impact.

- Describe how the problem affects user experience.
- Mention consequences such as frustration, time loss, or errors.

Step 5: Keep It Simple and Clear.

- Use simple language.
- Avoid technical jargon and assumptions.

Examples of UI/UX Problem Statements:

- "New users of the mobile banking app struggle to locate the fund transfer option, causing frustration and increased support requests."
- "Elderly users find it difficult to read text on the healthcare app due to small font sizes, leading to reduced usability."
- "Online shoppers abandon carts because the checkout process is long and confusing."

Common Mistakes in Writing Problem Statements:

- Including solutions (e.g., "The app needs a new button").
- Being too broad or vague.
- Ignoring user research and data.
- Focusing only on business problems instead of user problems.

Role of Problem Statements in the Design Process:

- Serves as input for ideation and brainstorming.
- Helps evaluate design alternatives.
- Acts as a reference during usability testing.
- Ensures consistency throughout the UX lifecycle.