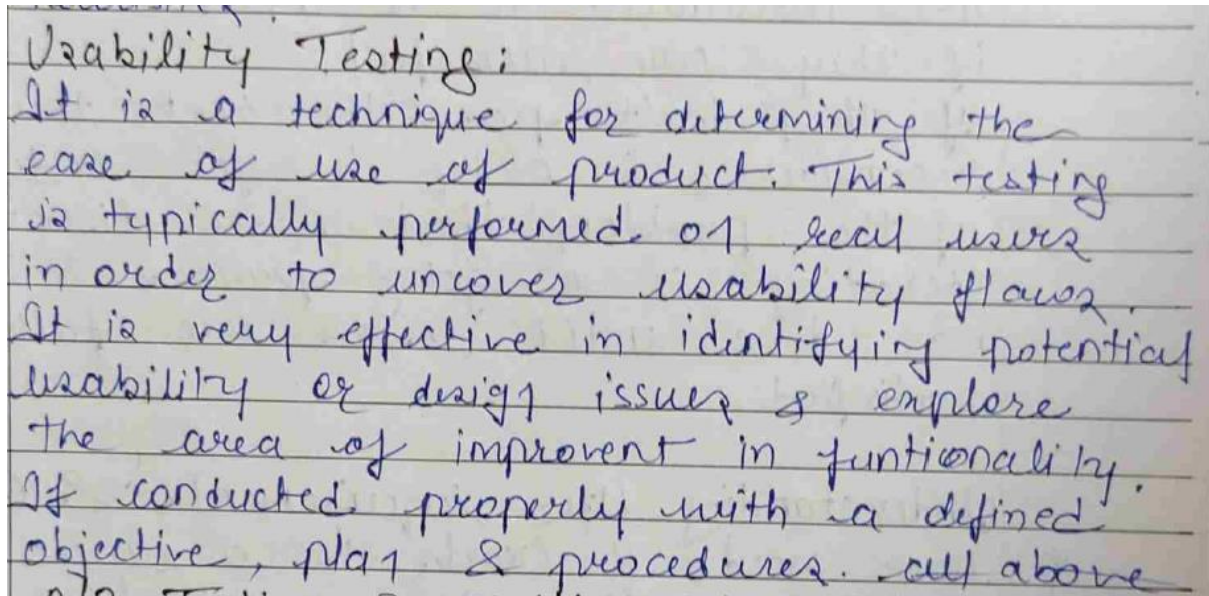


VR MOD 3 & 4

Q1) Explain Usability testing with its type in UX design process. [10] / [5]

ANS:



Usability Testing:
It is a technique for determining the ease of use of product. This testing is typically performed on real users in order to uncover usability flaws. It is very effective in identifying potential usability or design issues & explore the area of improvement in functionality. If conducted properly with a defined objective, plan & procedures. all above

Types:

1. Remote Usability Testing:

- i. Participants use a product or website from their own location while researchers observe and gather feedback remotely.
- ii. Tools like Zoom, Microsoft Teams, or specialized platforms such as Lookback or UserTesting facilitate screen sharing and recording for analysis.
- iii. It's convenient and allows testing with diverse users without geographical constraints.

2. Moderated Usability Testing:

- i. A researcher guides participants through tasks, observes their interactions, and collects feedback in real-time.
- ii. The moderator can provide clarifications, ask follow-up questions, or probe deeper into any issues participants face during the test.
- iii. It's helpful for understanding user behaviour and thoughts as they navigate through the product. However, it can be time-consuming and requires experienced moderators.

3. Unmoderated Usability Testing:

- i. Participants complete tasks independently, without direct guidance from a researcher.

- ii. They usually record their screen and verbalize their thoughts while interacting with the product.
- iii. It's efficient for gathering feedback from a large number of users quickly.

4. Comparative Usability Testing:

- i. This involves testing multiple versions of a product or interface to determine which performs better in terms of usability.
- ii. Participants interact with each version and provide feedback on their experience, while researchers measure performance metrics like task completion rates, errors, and satisfaction.
- iii. It helps in making informed design decisions by identifying strengths and weaknesses of each version.

5. Think-Aloud Testing:

- i. Participants verbalize their thoughts and actions as they interact with the product.
- ii. This provides insights into their decision-making process and helps identify usability issues that might not be obvious otherwise.
- iii. This method provides real-time qualitative data on user experience, enabling researchers to pinpoint usability issues effectively.

6. A/B Testing:

- i. Also known as split testing, it involves presenting users with two (or more) versions of a product or interface and measuring which one performs better based on predefined metrics such as conversion rate or user engagement.
- ii. This method is highly effective for optimizing specific elements (e.g., button colours, CTAs, or layouts) and making data-driven decisions to enhance usability and overall performance.

7. Guerrilla Usability Testing:

- i. Conducted informally in public spaces or online communities, often with minimal planning and resources.
- ii. Researchers give users a quick task to complete while observing their reactions and gathering feedback on the spot.
- iii. It's useful for gathering quick feedback from a diverse range of users in a natural setting.

Q) Develop usability testing plan for a shopping web site. Explain how your plan will effectively identify usability issues and improve the overall user experience. [10]

ANS:

1. Goal of Testing

The main goal is to see how easy the website is to use. We will focus on:

- **Easy to navigate:** Users should find products and information quickly.
 - **Efficient:** Users should complete tasks (e.g., searching for products, adding items to the cart etc.) with minimal effort and errors.
 - **User-friendly:** The overall user experience (UX) should be smooth, intuitive, and satisfying.
-

2. Target Audience (Participants)

- **8 to 12 people** who represent real users:
 - Age: 18–45 years.
 - Experience: Beginners and regular online shoppers.
 - Devices: Mix of mobile and desktop users.
-

3. Usability Testing Methods

Method 1: Moderated Testing

- **What is it?** A facilitator (moderator) guides users through tasks and asks questions.
- **Why use it?** To observe and ask users what they find easy or difficult.
- **Example Task:** “Search for a pair of headphones, add them to the cart, and apply a discount code.”

Method 2: Unmoderated Testing

- **What is it?** Users complete tasks on their own and share their experience.
- **Why use it?** It’s quick and allows testing with more people.
- **Tools:** Tools like **UserTesting** or **Maze** to record user activity.

Method 3: A/B Testing

- **What is it?** Test two versions of a page to see which works better.
 - **Why use it?** To compare designs (e.g., two search bar styles).
 - **Example:** “Test which search bar helps users find products faster.”
-

4. Key Tasks for Users

Task	What Users Will Do
Search for a Product	Search for “wireless headphones” using the search bar.
Compare Products	Compare two laptops based on price and features.
Add to Cart	Add a product to the cart and apply a discount code.
Checkout Process	Buy a product and complete the payment process.
Find Return Policy	Locate the return policy for electronics on the website.
Mobile Testing	Use the mobile version of the site to browse and shop.

5. Metrics for Evaluation

We will collect the following data:

- **Task Success Rate:** Percentage of tasks completed successfully.
 - **Time on Task:** Time taken to complete each task.
 - **Error rate:** Number of errors or missteps users make during a task.
 - **User Satisfaction:** Ask users for their feedback using a quick survey.
 - **Heatmap Analysis:** Areas where users focus or struggle the most (e.g., eye-tracking)
 - **Navigation Efficiency:** Number of clicks taken to find a specific product or information.
-

6. Steps to Run the Test

1. Prepare for the Test

- Find participants and explain the test goals.
- Set up tools to record user activity.

2. Run the Test

- Ask users to complete tasks while you observe them (or let them do it alone for unmoderated testing).
- Ask them to “think aloud” and share their thoughts as they go.

3. Collect Feedback

- After the test, ask questions like:
 - “What did you like about the website?”
 - “What was difficult or confusing?”

4. Analyze Results

- Look at data like task success rates, user mistakes, and feedback.
- Identify problems (e.g., hard-to-find search bar, confusing checkout steps).

5. Make Recommendations

- Suggest changes to fix problems, like:
 - Make the search bar bigger or add autocomplete.
 - Simplify the checkout process with fewer steps.
 - Improve mobile navigation for smaller screens.

7. Expected Outcome

By testing the website, we will:

- Find and fix problems that frustrate users.
- Make it easier for users to search, compare, and buy products.
- Improve the overall experience so users enjoy shopping on the site.

Q) process of planning usability tests in the UX design process.

ANS:

1. Define the test objectives

First of all, it is important to know why you want to perform a usability test.

To define the goal, you need to evaluate the current state of your UX design project:

- If you do not yet have a UI, you may want to perform the test with competing products. This way, you want to evaluate what features and other design issues work with similar products;
- If you already have a UI, it may be time for you to test your product to gain insights. Then you will have a direction on what development improvements are needed;
- Or, you may already have a released product and want to re-evaluate some features and understand what needs to be updated or not.

Next, understand what exactly you need to be tested:

- What information do you consider important to collect;
- What problems do you want to address?

2. Choose which type of usability test you will use (Qualitative and Quantitative)

Qualitative or Quantitative

- **Qualitative:** intended to find information about how users use and behave with your product. Well suited to find problems during the User Journey;
- **Quantitative:** to collect quantitative information about the user experience. Time and success rate are some examples of observable metrics.

Remote or In person

- Another choice regarding the type of usability test is the geographical location of the participants.
- The tests can happen in person or remotely. In-person testing requires the moderator and the user to be physically in the **same place**.
- On the other hand, remote testing is done with the mediator and the user in different locations.

- Although it may seem like little difference, face-to-face tests tend to collect much more information than remote tests.

Moderated or unmoderated

- A moderated usability test is administered by one person, a researcher or a UX Designer, who can answer and ask questions to the user. In addition, they introduce the test to the participant and give explanations of how it will work.
- On the other hand, an unmoderated test is one that does not have a person to supervise and follow the user. Generally, in this type of test, the user will perform the tasks without asking or being asked any questions during the session.
- Moderated test brings more insights and information to the research.

3. Consider what tools you'll need

Do you require any additional Usability testing tool or software to get the job done? This doesn't necessarily mean tools directly related to usability testing—it can also include note-taking software, video conferencing tools, project management platforms etc.

Here's a look at some of the software this could include:

- **Zoom:** for video conferencing
- **Airtable:** for project management
- **Maze:** for remote usability testing and continuous research
- **Notion:** for taking notes
- **Uxcel:** for educating the rest of the team on what you're doing

4. Recruit Participants

- The basic behaviours of your users tend to be similar. So a larger number of participants will only bring repetition of results and no more relevant data than if it was done with fewer people.
- Therefore, the efficient number to apply the usability test is 5 people. More than that and you will only waste time and money.
- The choice and the definition of your user profile or persona is the key to a successful result.

5. Set Up the Test Environment

Choose appropriate tools and software for conducting the test, such as screen recording software or remote testing platforms. Ensure all necessary hardware and software are ready, including devices that reflect what users typically use.

6. Pilot Test

Run a Pilot: Conduct a pilot test with a small number of participants to identify any issues with the test plan, tasks, or equipment.

7. Collect Data

Collect all the essential test result data for further test.

8. Analyze the Results

Collected data result to be analysed by either expert or researcher.

9. Report

- A usability report lays out the findings from your usability testing and what you can learn from them.
- This report can then be shared with relevant teams to update them on findings for current and future projects.
- Include details that provide context and accurately communicate the time, effort, and energy that goes into successful usability testing.
- This report isn't just about sharing results, it's also about ensuring everyone understands the importance and impact of user research.

Q) Explain the importance of planning usability tests in the UX design process.

ANS:

Planning usability tests is a crucial part of the UX design process because it ensures that the product meets user needs, is easy to use, and delivers a smooth experience. Here's why planning usability tests is important:

1. Identifies Usability Issues Early

- Planning usability tests during the design phase helps find problems before the product is launched.
- Issues like confusing navigation, unclear buttons, or inefficient workflows can be identified and fixed early, saving time and cost.

- **Example:** If users struggle with the checkout process, it can be simplified before going live.
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2. Puts the User at the Center of Design

- Usability tests ensure the design is focused on the actual users, not just the designers' assumptions.
 - By observing users perform real tasks, you can see what works well and what doesn't.
 - **Example:** If users can't find the search bar easily, you know it needs improvement.
-

3. Improves User Satisfaction

- A well-planned usability test ensures the final product is intuitive, enjoyable, and frustration-free.
 - Higher usability means happier users, which improves customer retention and loyalty.
 - **Example:** A user-friendly website keeps customers coming back to shop.
-

4. Reduces Development Costs and Rework

- Fixing usability problems early is cheaper and faster than fixing them after launch.
 - Planning tests helps identify the areas of focus, saving time on unnecessary changes.
 - **Example:** Redesigning a confusing menu after launch can be costly; testing it earlier prevents this.
-

5. Provides Data-Driven Insights

- Usability tests provide concrete data about user behavior, task completion rates, and satisfaction levels.
- These insights guide decisions and validate design choices.

- **Example:** Metrics like “time to complete a task” help measure design success.
-

6. Enhances Product Quality

- Testing ensures the product meets user expectations and industry standards for usability.
 - A high-quality product with fewer usability issues builds trust and credibility.
 - **Example:** A clean and easy-to-use e-commerce site will attract more customers.
-

7. Helps Prioritize Design Improvements

- Planning tests allows teams to focus on critical areas of the design, such as navigation, search, or checkout processes.
 - Priorities are set based on user struggles and feedback.
 - **Example:** If most users find the checkout process difficult, it becomes a top priority for improvement.
-

8. Ensures Accessibility

- Usability testing can help identify accessibility issues for users with disabilities.
 - Ensuring the design works for all users creates an inclusive experience.
 - **Example:** Testing screen readers or font sizes helps accommodate visually impaired users.
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9. Boosts Business Success

- A usable and well-designed product leads to higher user satisfaction, conversions, and sales.
- Better usability reduces bounce rates and increases customer engagement.
- **Example:** A smooth shopping experience increases purchases and reduces cart abandonment.

10. Validates Design Decisions

- Planning usability tests helps confirm that the design choices align with user needs and goals.
 - Instead of guessing what users like, testing provides proof.
 - **Example:** Testing two homepage layouts (A/B testing) shows which one works better.
-

Q) Benefits of creating a usability test plan. [10]/[5]

Creating a usability test plan offers several key benefits for ensuring a user-friendly and effective product or service. Here are the main advantages:

1. **Clear Objectives:** A usability test plan helps define specific goals for testing, ensuring that the focus is on identifying key usability issues. This makes it easier to understand what the testing is trying to achieve and how to measure success.
2. **Focused Testing:** By outlining the tasks and scenarios to be tested, the plan ensures that testers concentrate on real-world usage and critical features, preventing unnecessary distractions during the testing process.
3. **Improved User Experience:** Identifying usability issues early on allows you to make adjustments before the product is released, leading to a smoother, more intuitive user experience.
4. **Efficient Resource Management:** A well-crafted test plan helps you allocate resources effectively, including time, personnel, and tools, ensuring that testing is conducted efficiently.
5. **Reproducibility:** The test plan provides clear guidelines that can be followed in subsequent usability tests. This consistency ensures that results are comparable and allows for more precise improvements over time.
6. **Stakeholder Communication:** A usability test plan serves as a communication tool for stakeholders, providing them with clear insights into the testing process, what will be tested, and how findings will be used. This can help align expectations and decision-making.

7. **Data-Driven Decisions:** By defining clear success metrics, a usability test plan enables you to gather actionable data that can guide design and development decisions, rather than relying on subjective feedback.
8. **Risk Mitigation:** Addressing potential usability issues early can help reduce the likelihood of user frustration, negative reviews, or costly post-launch fixes.
9. **Increased Collaboration:** A usability test plan fosters collaboration among team members, designers, developers, and other stakeholders. By defining roles and responsibilities, it ensures everyone is on the same page, working together toward common goals and understanding how usability insights will be applied.
10. **Tracking Progress and Improvements:** A test plan helps track changes and improvements over time by documenting previous issues and how they were addressed. This allows teams to measure the effectiveness of design iterations and make data-driven decisions for future enhancements.