Module 3

UX Design Process: Prototype and Test

3.1

- Testing your Design
- Usability Testing
- Types of Usability Testing
- Usability Testing Process
- Preparing and planning for the Usability Tests

3.2

- Prototype your Design to Test
- Introduction of prototyping tools
- Conducting Usability Test
- Communicating Usability Test Results

Testing your Design

Usability Testing

- User friendliness
- Easy navigation
- Easy to use
- Consistent design
- Accessible

Types of Usability testing

1. Moderated

- During moderated usability testing a coordinator is in contact with the participant. It can be either in-person or remote.

2. Unmoderated

- In unmoderated usability testing, participants are not led by a moderator. The usability test is created beforehand and there is no researcher involved during the study.

3. Remote usability testing.

- Any testing that takes place when the participant and the researcher are in different locations is referred to as **remote usability testing**.

4. In-person usability testing

- In-person usability testing carried out in a face-to-face environment in a workplace where users are requested to carry out specific tasks with a researcher present.

5. Qualitative testing

- focused on gathering and understanding the subjective experiences.
- It is a more in-depth method of learning about their specific needs, problems and expectations.

6. Quantitative testing

- Technique that focuses on gathering numerical data about users and analyzing quantitative metrics, such as satisfaction rate, time taken to complete a task or error rates.

7. Explorative usability testing

- focused on discovery. It entails asking participants to openly share their thoughts, views, and perspectives. It tends to be conducted with a smaller number of participants.

8. Comparative usability testing

- Based on comparing two or more versions of a digital product or interface to figure out which provides a better UX.

Usability Testing Process

1. Create your prototype
2. Test planning
3. Recruiting people
4. Test execution
5. Analysis and documenting the test result
6. Reporting

Preparing And Planning For The Usability Tests

1. Define the test objectives

-First of all, it is important to know why you want to perform a usability test. What is the goal?

2. Choose which type of usability test you will use

-Qualitative and Quantitative

3. Consider what tools you'll need

4.Recruit Participants

5. Set Up the Test Environment

6. Pilot Test

-A small number of participants to identify any issues with the test plan, tasks, or equipment.

7. Collect Data

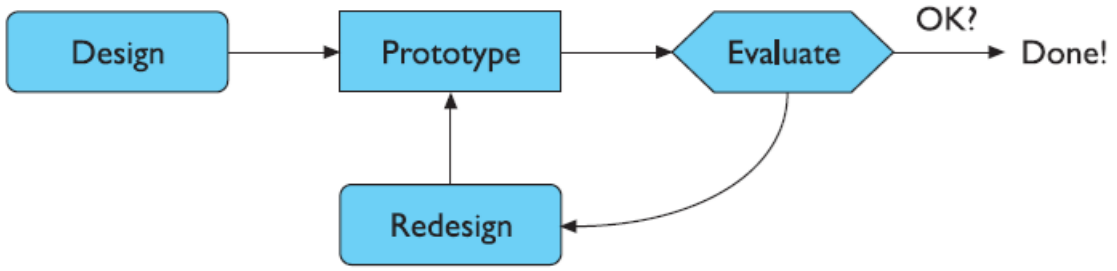
8. Analyse the Results

9. Report

Prototype your Design to Test

1. Know what you’re testing and why
2. Define the target audience for your test
3. Create a prototype(Low-fidelity prototypes or High-fidelity prototypes)
4. Choose the usability testing technique
5. Decide which tools you’ll use
6. Evaluate the test results and implement changes

- Paper-based or running software, can then be evaluated to see whether they are acceptable and where there is room for improvement.
- The result of evaluating the system will usually be a list of faults or problems and this is followed by a redesign exercise
- Iteration and prototyping are the universally accepted ‘best practice’ approach for interaction design.



- Figure. Role of prototyping

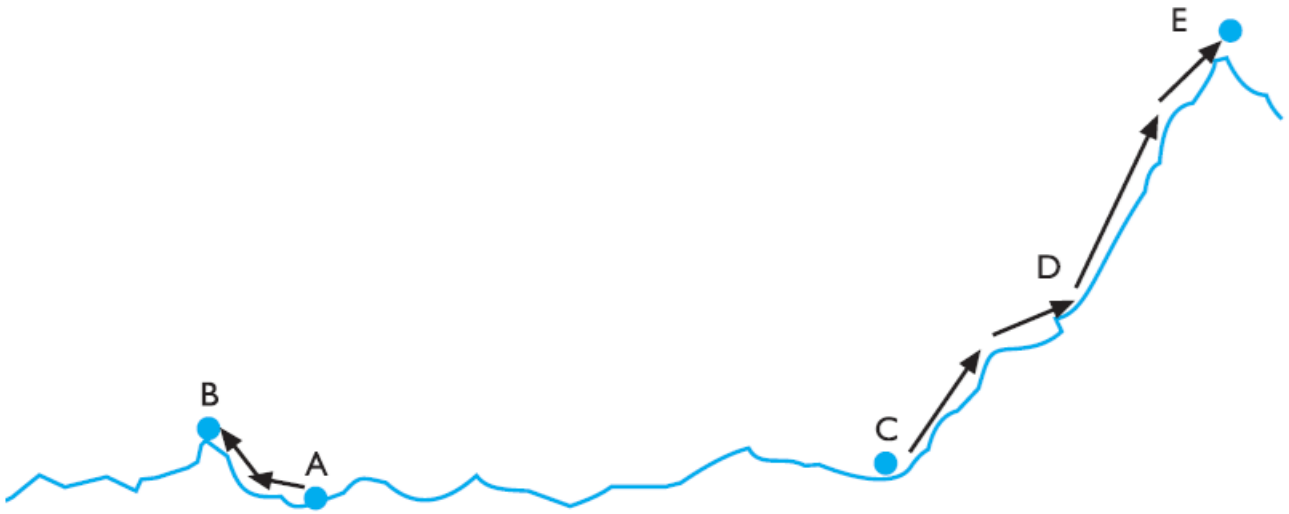


Figure. Move little by little little but where

- Prototyping is an example of what is known as a hill-climbing approach.
- Evaluate to see how to make it better, change it to make it better and then keep on doing this until it can’t get any better.
- hill climbing doesn’t always work.
- if you start at A you get trapped at the local maximum at B, but if you start at C you move up through D to the global maximum at E.

How to choose the right prototyping tool for your project

1. Assess your project's requirements and goals. Make sure the prototyping tool you choose can accommodate those needs.
2. Consider your budget and time frame when evaluating different tools.
3. Test and review multiple prototyping tools before deciding on one.

UX Prototyping Tools For Designers

1. **Adobe XD:** Offers a comprehensive platform for designing, prototyping, and sharing interactive experiences. It integrates well with other Adobe products and is known for its ease of use.
2. **Sketch:** Popular among designers for its vector-based design capabilities and strong community support. Sketch is particularly favored for high-fidelity designs.
3. **InVision:** Focuses on creating interactive prototypes and offers robust tools for collaboration and feedback.

4.Figma

- **Platform:** Web, MacOS, Windows
- Figma is a leading prototyping tool for UX/UI designers, and for good reason: within the same (cloud-based) interface, you can create your wireframes and simply click on the **Prototype** tab to set up interactions and clickable flows through your design.
- **Best for:** Easy, real-time collaboration

5. Balsamiq Cloud

- **Platform:** Web (Desktop apps for MacOS and Windows are available separately)

- **Balsamiq Cloud**
- Balsamiq Cloud web app that focuses on rapid wireframing, which helps users and stakeholders focus more on the structure and idea rather than getting stuck on the smaller details that will be refined in later stages.
- **Best for:** Low fidelity, rapid wireframing.

6. Origami Studio

- **Platform:** MacOS
- **Cost:** Free
- **Best for:** High-fidelity prototypes that pull real data from mobile and desktop apps.

- Origami Studio was created by the Facebook design team and is entirely free to use. Facebook designers wanted a prototyping tool that would work fast while still making rich experiences.

Conducting Usability Test

Step 1: Plan your test

Step 2: Recruit test participants

Step 3: Run tests

Step 4: Analyze and present test data

Summary of Completion, Errors, Time on Task, Mean Satisfaction

Task	Task Completion	Errors	Time on Task	Satisfaction*
1	7	4	123	3.52
2	2	10	186	2.90
3	5	2	74	4.70
4	4	9	130	3.57
5	6	3	69	4.52
6	0	14	210	2.67

Communicating Usability Test Results

1. **Prepare your data**

For example, you can use a matrix to plot the severity and frequency of usability problems, or a journey map to show the users' pain points and emotions.

2. Present your findings

For example, you can use a high-level overview for a busy audience, a detailed report for a technical audience, or a visual story for a creative audience.

3. Use storytelling techniques

For example, you can use personas to represent the users' goals, needs, and behaviors, scenarios to describe the users' tasks and situations, conflicts to show the users' challenges and frustrations, and resolutions to suggest the users' solutions and expectations.

4. Involve the designers

The goal is to make the designers feel part of the testing journey, and to encourage them to share their perspectives and ideas.

5. Follow up on your results

The goal is to maintain the communication and the relationship with the designers, and to monitor the progress and the impact of your test results.