

Design Thinking

Prepared by Dr. Aya Mohamed

ENT 621
Master of Entrepreneurship

Lecture 6



In The Previous Lecture: Design Thinking

- ❑ The Holistic approach of Design thinking
- ❑ Key principles and mindset of design thinking
- ❑ FOUNDATION BUILDING FOR DESIGN THINKING PROJECT
 - STEEP analysis
 - Case Study

Holistic

Foundation

STEEP

In This Lecture: Design Thinking

- 4 Ways to Get Started with Design Thinking
- The power of Empathy
- The Power of Observation
- The power of User Interviewing
- The Empathy Map

Empathy

Observation

Interviewing

4 Ways to Get Started with Design Thinking

1. Gather Insights by Practicing Empathy, Observation, and Interviewing

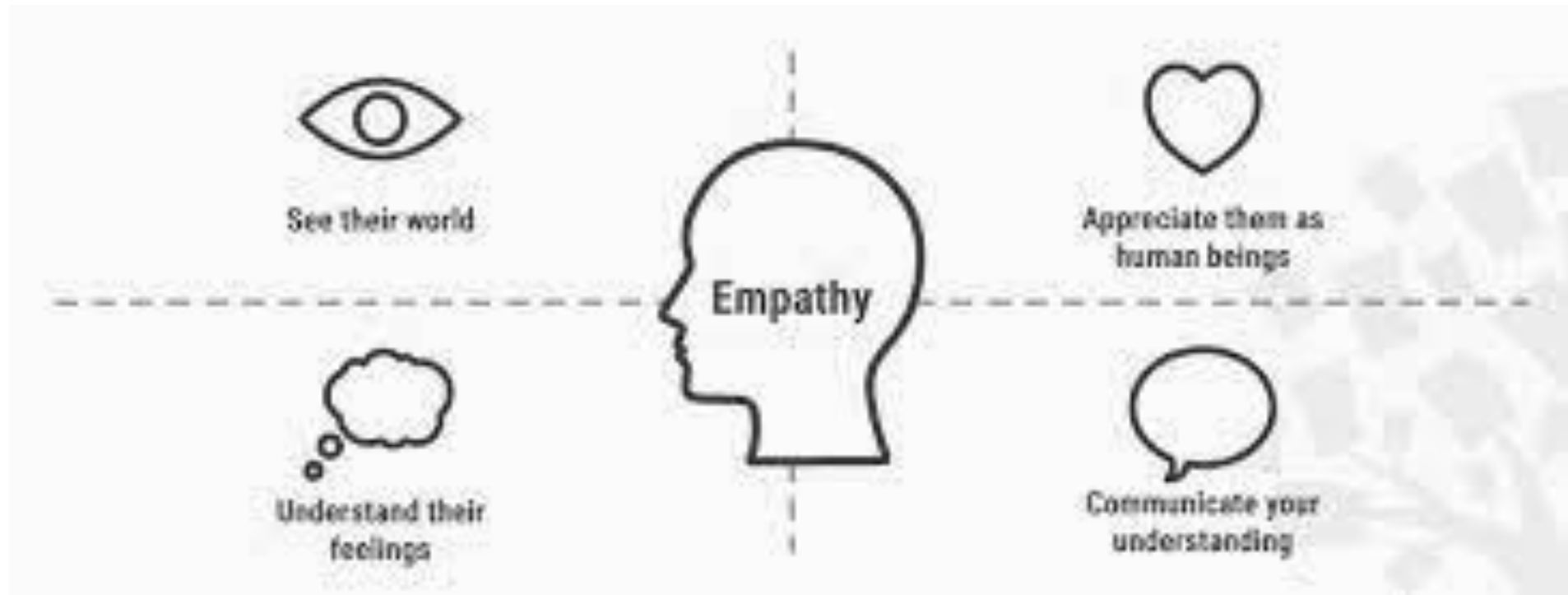
create solutions that actually work for people

Getting to know your customers is the first step toward creating products and services they want and need. Don't assume you know what someone thinks or feels. Gathering information about your target consumer is a critical piece of the design thinking approach. Build your interview skills



4 Ways to Get Started with Design Thinking

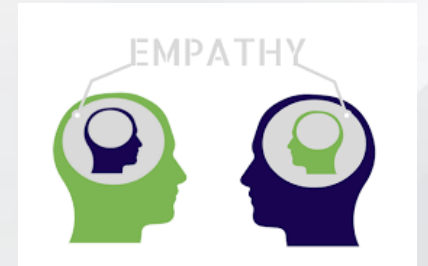
1. Gather Insights by Practicing Empathy, Observation, and Interviewing



The Power of Empathy

Empathy is our ability to **see the world through other people's eyes** — to see what they see, feel what they feel and experience things as they do. Of course, none of us can fully experience things the way someone else does, but we can attempt to get as close to this as possible. We achieve this empathic state as we put aside our own preconceived ideas about the world and choose to understand the ideas, thoughts and needs of others instead.

Empathy is a “**deep understanding of the problems and realities of the people you are designing for.**”



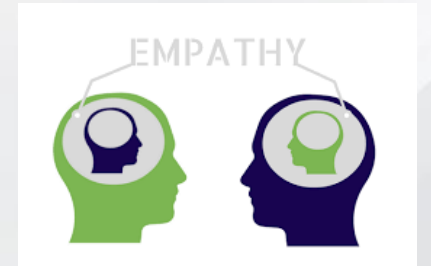
The Power of Empathy

Empathy is our ability to **see the world through other people's eyes** — to see what they see, feel what they feel and experience things as they do. Of course, none of us can fully experience things the way someone else does, but we can attempt to get as close to this as possible. We achieve this empathic state as we put aside our own preconceived ideas about the world and choose to understand the ideas, thoughts and needs of others instead.

Empathy is a “**deep understanding of the problems and realities of the people you are designing for.**”

Empathy helps you:

- Appreciate people's emotional and physical needs.
- Gain insight into the way people see, understand and interact with the world around them.
- Realize how lives are impacted within the contexts being investigated.
- Find out what people mean rather than just what they say — empathic research is inherently subjective and is concerned with motivations and thoughts, rather than facts.



The Power of Empathy

Empathy is simply *crucial* to a human-centered design process such as design thinking as it helps you set aside your own **assumptions** about the world to gain insight into your users and *their* needs instead.

Empathy is Crucial to Business Success

“People ignore design that ignores people.”

— Frank Chimero, author of *The Shape of Design*



The Power of Empathy

Empathy is simply *crucial* to a human-centered design process such as design thinking as it helps you set aside your own **assumptions** about the world to gain insight into your users and *their* needs instead.

Empathy is Crucial to Business Success

“People ignore design that ignores people.”

— Frank Chimero, author of *The Shape of Design*



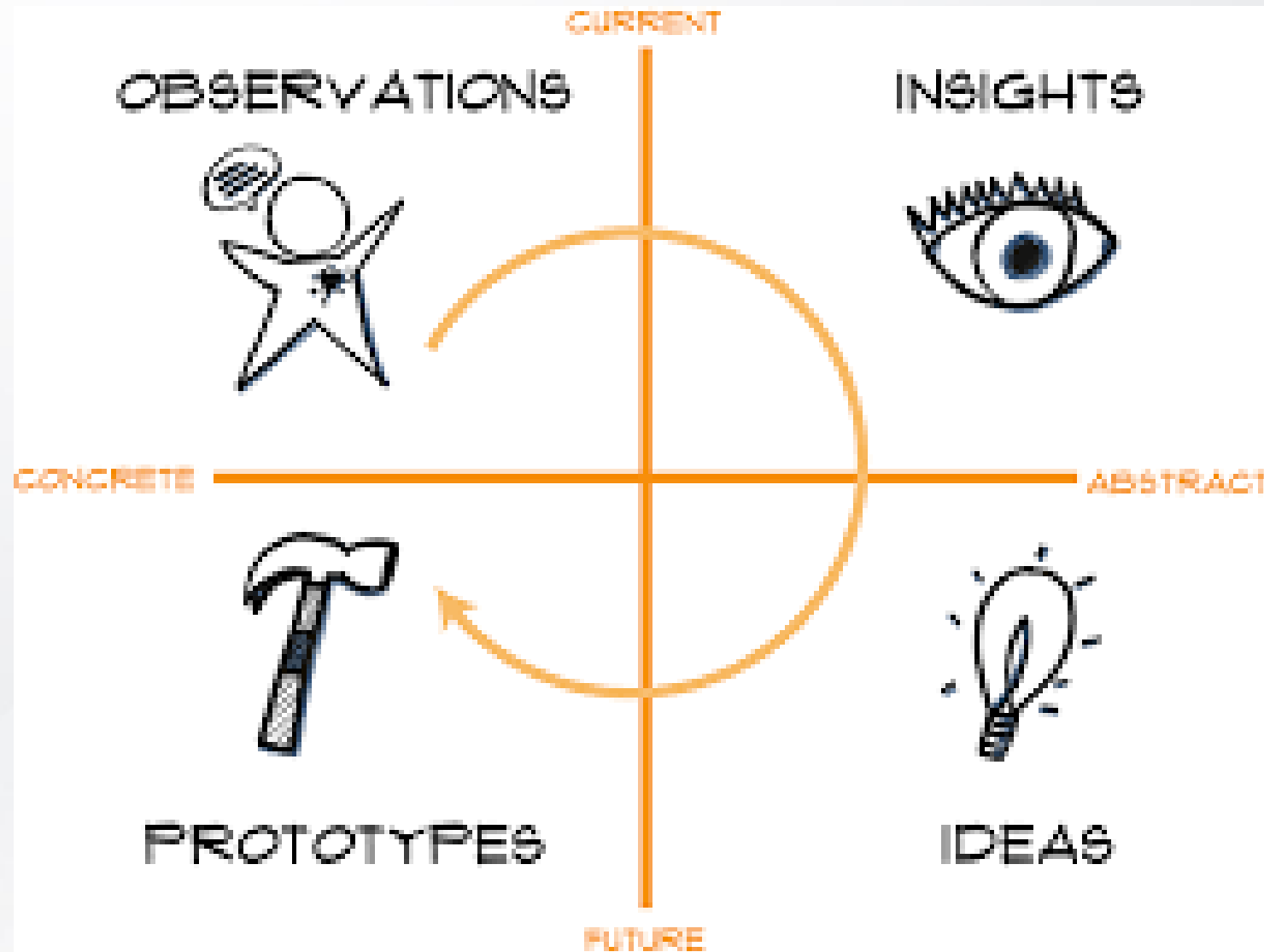
One clear example of this is the iPod. Many MP3 players came and went throughout the late 1990s, and didn't create much of an impact. Then, along came the iPod in 2001. It not only provided a technological solution, but also delivered a completely desirable and viable experience. This meant Apple took the lead in the market and continued to hold it for many years to come, generating huge profits along the way.

Observation: A way to understand your customers is to immerse yourself into their world and perspectives. Observing users in their world gives you the opportunity to empathize with their experience, understand their context, uncover hidden needs and hear their honest and unfettered feedback.

Observation also requires taking on **a beginner's mindset**. What does that mean?

Think about how 5-year-olds explore. They ask lots of “**why**” **questions**, they make no predetermined notions as to how something works, and they are truly fascinated by what they see. A successful observation looks upon the customer's world the same way.

The Power of Observation



Tips on gaining a beginner's mindset, shared by Stanford D.School:

- **Don't judge.** Simply engage with users without the influence of value judgements on their actions.
- **Question everything.** Question even things you think you understand. Question users on how they perceive their world. Follow up a “why” with another “why.”
- **Be truly curious.** Try to observe from a different perspective.
- **Find patterns.** Try to find common threads that weave a similar story.
- **Listen.** Let everything sink in and soak up the scene. Really listen to what is being said to you or during your observation. Don't get distracted about thinking of what you will say next when someone is talking.

Methods for Observing Your Customers

1. Natural Environment

Go out to where your customers are, whether it is a retail shop or a dealership. This is where you can gain a lot of insight in a short time. Sit and watch how interactions happen. Feel free to approach customers and ask them questions about their experience.



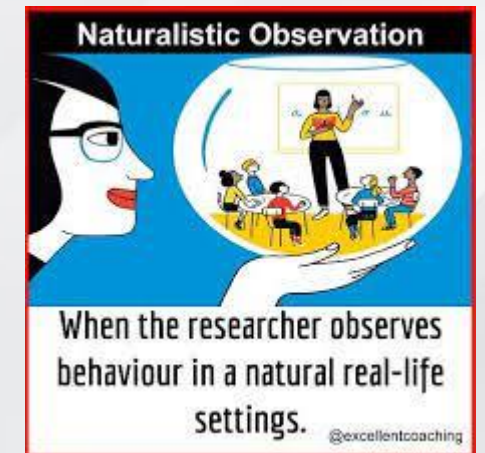
Methods for Observing Your Customers

1. Natural Environment

Go out to where your customers are, whether it is a retail shop or a dealership. This is where you can gain a lot of insight in a short time. Sit and watch how interactions happen. Feel free to approach customers and ask them questions about their experience.

Some questions you can ask yourself are:

- How are users interacting with my product in a store?
- What type of questions are they asking?
- Who are they with?



The natural environment provides a lot of great opportunities for the observer. Don't just stop at one, however. Try to locate a wide variety of locations where your customers shop.



Methods for Observing Your Customers

2. Observation Lab

Another popular method is to create an environment to see how your customers engage with and use your products.

At the Procter & Gamble Mason Business Center in Ohio, P&G set up a lab that takes customer discovery to a whole new level.

At the oral health science “Insight Suite,” a two-way mirror lets the company watch customers use products in a bathroom and kitchen.



Methods for Observing Your Customers

2. Observation Lab

Another popular method is to create an environment to see how your customers engage with and use your products.

At the Procter & Gamble Mason Business Center in Ohio, P&G set up a lab that takes customer discovery to a whole new level.

At the oral health science “Insight Suite,” a two-way mirror lets the company watch customers use products in a bathroom and kitchen.

Researchers can then note how users interact with the products and what they use them for. Building a lab provides a different type of insight compared to the natural environment. Since users know they are being observed, it may create skewed results. However, it is still a valuable way to see how your customers engage with your products

Methods for Observing Your Customers

3. “Day in the Life” Home Observation

This one piggybacks off of observing the customer in a natural environment. Recruit customers who you can spend a day with and see how they engage with your product in a natural way.

Let’s say you wanted to observe how a landscape crew uses their equipment. Reach out to some landscaping companies and see if you can tag along for the day. Observe how they schedule work in the morning, how a trailer get stocked with the equipment, how employees use the equipment out in the field, etc.

Additional Observation Tips

- **If possible, observe in groups.** Two eyes are better than one, and you can discuss the experience as a team once it is completed. If you can't observe as a team, share your observations with a team later.
- **Get to know the people you are observing,** not just as customers but as people. Ask open questions on how they live and work.

Additional Observation Tips

- **If possible, observe in groups.** Two eyes are better than one, and you can discuss the experience as a team once it is completed. If you can't observe as a team, share your observations with a team later.
- **Get to know the people you are observing,** not just as customers but as people. Ask open questions on how they live and work.
- **When observing, understand the context of the situation.** What led to them going in and buying a product? Why did they decide to use the product that way?
- And remember, the role of observation is to understand what the customer can't – or won't – always tell you.

Tools for Observation Sessions

1- WHAT, HOW and WHY method:

The Stanford D.School has developed a method called What? | How? | Why? that you can use during an observation session

WHAT?	HOW?	WHY?
Write down what you observe.	Write down how the customer is doing it.	Write down why they are doing it this way. (Make a guess.)

Using this quick tool can help formulate your insights in a tangible way for discussion with the team later. And while observation is an important and often insightful method to empathize with your customer, remember – it can also be useful for internal processes within your organization

Tools for Observation Sessions

2- AEIOU Observation Framework

A - Activities

E - Environments

I - Interactions

O - Objects

U – Users

For the purposes of digital product and software practices,

- ❑ AEIOU is helpful for categorizing and interpreting observations gathered during user research field studies and usability testing efforts.
- ❑ AEIOU quickly turns raw notes into categories that can inform research analysis to develop key insights and other findings.

Tools for Observation Sessions

2- AEIOU Observation Framework

- **Activities:** What actions and behaviors are people taking to reach goals?
- **Environments:** What is the overall setting in which the activities are taking place? How are people behaving in the environment?
- **Interactions:** What are the basic interactions occurring for people to reach goals? What effect do people have on activities and environment?
- **Objects:** What are all the details that form the environment? How do objects relate to people, activities and interactions?
- **Users:** Who are the people being observed? What are their personalities like? How do they engage with other people to reach goals?

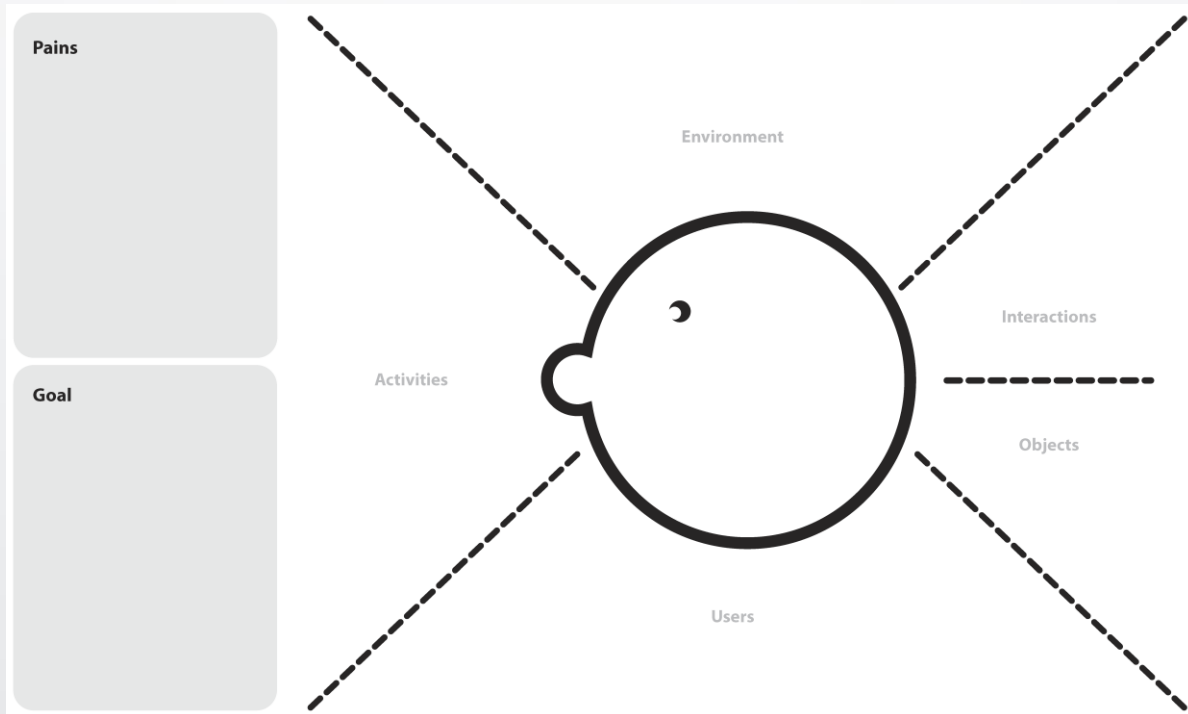
Tools for Observation Sessions

2- AEIOU Observation Framework

DATE:	PROJECT NAME:	TYPE OF RESEARCH:		
TIME:	RESEARCHER NAME:			

Activities	Environments	Interactions	Objects	Users

2- AEIOU Observation Framework



DATE:	PROJECT NAME:	TYPE OF RESEARCH:		
TIME:	RESEARCHER NAME:			
Activities	Environments	Interactions	Objects	Users

The Power of Interviewing

***You need to go out and meet your users** if you want to properly understand and design for them, and user interviews are a great way to achieve this. They enable you to extract information about the user experience and usability of your product or service, and will also help you ideate for further solutions.*



The Power of Interviewing

You need to go out and meet your users if you want to properly understand and design for them, and user interviews are a great way to achieve this. They enable you to extract information about the user experience and usability of your product or service, and will also help you ideate for further solutions.

User interviews are guided interviews where a researcher asks existing or potential users questions to gain an understanding of their preferences, thoughts and feelings. User interviews can be used to examine the user experience and usability of a product or service, as well as flesh out demographic or ethnographic data for input into user personas.



The Power of Interviewing

The ideal user interview involves **two UX researchers and one user**. The first UX researcher asks questions and guides the interviewee through the interview, and the second researcher takes notes.

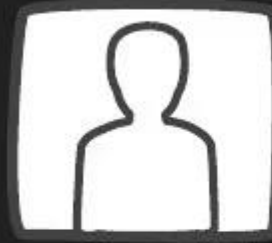
If you've ever tried to ask questions, listen to responses and take notes all at the same time, you'll know how hard it is to do all three! There's a good chance the interview will be derailed and become hard to manage.

If a second researcher is, however, unavailable and you have to go it alone, make sure to **video or audio record the** interview to ensure you don't lose any information.

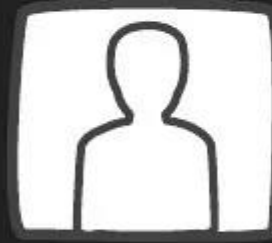
It's important to have a second researcher when you conduct user interviews as they can then be the one to take notes.

There are three types of notes you can take; however, it is descriptive notes that are most important and relevant to user interviews

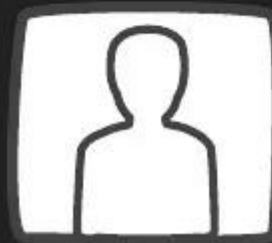
Notetaking types



Descriptive: See something; write it down



Inferential: Use inference to describe observation (e.g., "she was frustrated with XX")



Evaluative: Makes a judgment from inference and behavior (e.g., "humans do not have a positive relationship with XX")

Typical topics covered within user interviews include:

- The background of the user (ethnographic data, for example)
- The use of related technology
- How the user uses the product
- The user's main objectives and motivations to use the product
- The user's pain points with the product

However, please don't feel limited to these topics alone! If there's something you need to know, and can find the answers by asking your users, make sure to include a few questions about it (as long as it's not offensive or threatening of course!).

contextual interview: This is an interview that is conducted after (or during) a user observation—it's an interview “in context” with usage. You'll find these are very common in usability testing, the assessment of products and even in information visualization.

When should you conduct user interview?

The Power of Interviewing

contextual interview: This is an interview that is conducted after (or during) a user observation—it's an interview "in context" with usage. You'll find these are very common in usability testing, the assessment of products and even in information visualization.

When should you conduct user interview?

- **At the beginning of a project**, even before you've defined a clear concept. The information you collect during these initial user interviews will help you get a better understanding of your potential users, their wants and needs and what kind of solution you should aim for.
- **During the early stages of product development**. Once you have an early prototype, you can conduct usability tests with your users to gain valuable feedback before the product gets properly implemented and mass produced.
- **After the product has been put to market**. Just because your product has been shipped, it doesn't mean the user interviews have to stop!

Prepare for User Interviews

1. **Set a Goal for Your Interviews-----form a concise, concrete goal for your user interviews**—one that's related to a specific aspect of your users' behaviors or motivations is ideal. You should ask product stakeholders what they want to learn and base your goal on one of their realistic aspirations. Remember, don't go too broad otherwise your interviews will generate too much irrelevant material.

Keep your design needs in mind at all times!

Prepare for User Interviews

1. **Set a Goal for Your Interviews-----form a concise, concrete goal for your user interviews**—one that's related to a specific aspect of your users' behaviors or motivations is ideal. You should ask product stakeholders what they want to learn and base your goal on one of their realistic aspirations. Remember, don't go too broad otherwise your interviews will generate too much irrelevant material.

Keep your design needs in mind at all times!

2. **Recruit the Right Participants-----recruit a representative sample of users** for your interviews, so you should start with your user personas and try to find interview participants that match them. If you have multiple user personas, now is the time to decide whether you want to focus on one particular group of users or several.

3. **pick a location that's convenient and comfortable for both your participants and your team.**

Interview Questions

1. **Keep leading questions to a minimum**—focus on open-ended questions and leave out the closed-ended questions wherever possible.
2. **Prepare more questions than you think you'll need.** Make sure you include questions that allow you to approach the same issue from different angles yet also bear in mind the interviewee should be the person who talks for the majority of the interview (not you).
3. **Anticipate different responses** and create follow-up based questions based on your research goals.

Interview Questions

1. **Keep leading questions to a minimum**—focus on open-ended questions and leave out the closed-ended questions wherever possible.
2. **Prepare more questions than you think you'll need.** Make sure you include questions that allow you to approach the same issue from different angles yet also bear in mind the interviewee should be the person who talks for the majority of the interview (not you).
3. **Anticipate different responses** and create follow-up based questions based on your research goals.
4. **Don't forget your questions are a guide, not a script.** If you find your interviewee says something particularly interesting in an interview and there are no relevant questions to explore that idea... explore it anyway.

The Drawbacks of User Interviews

- **There's a difference between what humans say and what they actually *do*.** This is why the 5 whys method is so crucial and can help you get more accurate insights.
- **Human memory is flawed** and we can often struggle to recall details as clearly as we would like.
- **Participants often leave out small details** because they deem them insignificant. Make sure you repeat how important such details are for the purpose of your project and keep asking them “Why” to uncover more details about what they did and why.



Empathize Methods



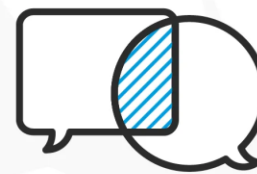
Assume a
Beginner's Mindset



Photo- & Video-Based
Observations



Personal Photo
& Video Journals



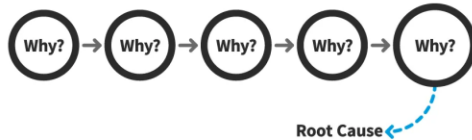
Conduct Interviews
with Empathy



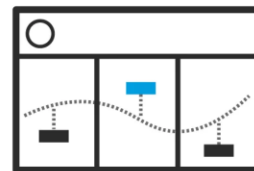
Bodystorm



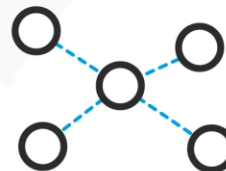
Engage with
Extreme Users



The Five Whys Method



Journey Mapping



Embrace Analogies



The What-How-Why Method



Capture & Share
Inspirational Stories

Conclusion:

Empathy is the cornerstone of any successful design project.

The extent to which you understand and empathise with your users ultimately determines the outcome of your design. Will it be user-friendly—an apt solution to the user's problem? Or will it miss the mark because you never fully grasped where your users are coming from?

As a designer, it's crucial to adopt a Design Thinking mindset. This means building empathy at every opportunity; getting to know your users, experiencing their pain points as if they were your own, and using this empathy to make smart design decisions

In This Lecture: Design Thinking

- 4 Ways to Get Started with Design Thinking
- The power of Empathy
- The Power of Observation
- The power of User Interviewing

Empathy

Observation

Interviewing



Thank You