




DESIGN THINKING



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Design thinking is a discipline used to develop interventions for complex problems. It is a human-centered approach to problem solving.

It employs qualitative and quantitative research to gain insights on people's lives and a contextual understanding of the system and its components.



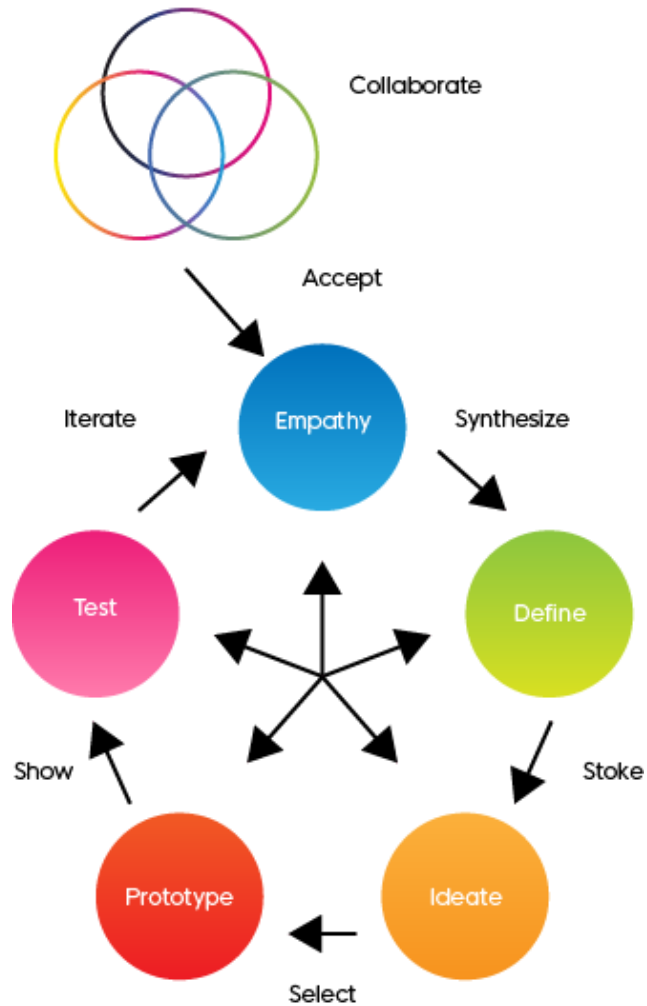


It does this through a process-centric method using a number of design techniques to empathize and clearly define or reframe the issue before the stages of ideation and prototyping.

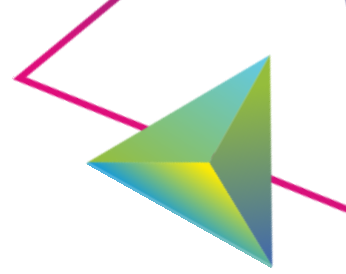
Design thinking promotes the use of tools like

- ethnographic research,
- stakeholder mapping,
- prototyping.

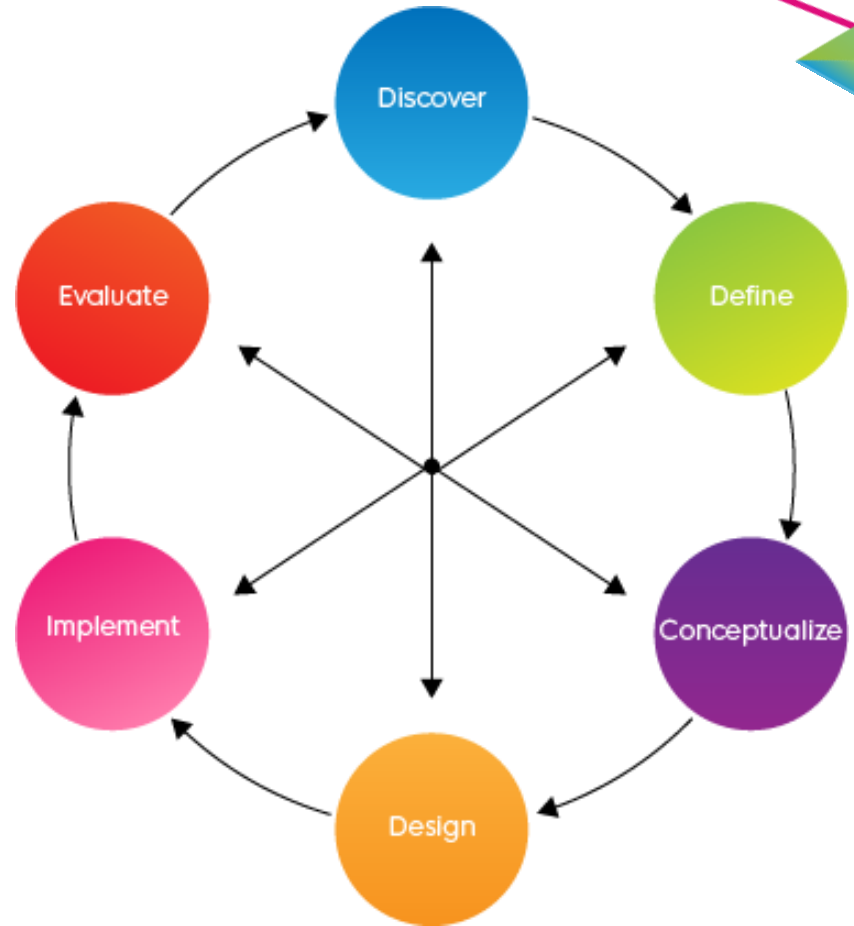




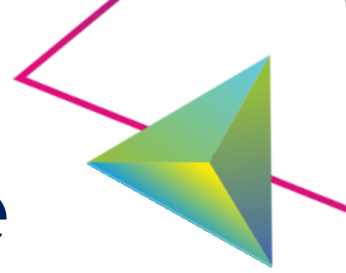
Dschool Design Process



Design Research Process



Qualitative vs. Quantitative



Quantitative - wanting to answer questions of the type 'What portion of a group thinks X'

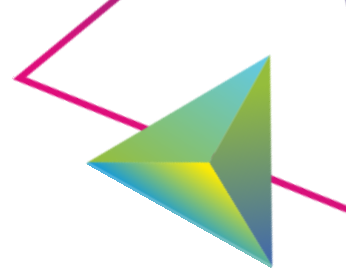
Qualitative - wanting to explore the many divergent views in a group without being able to answer what proportion of the group shares the opinions



Design thinking borrows from ethnography because of the need to understand the human element.



What is ethnography



Ethno (people)+Graphy (to document)

Ethnography is the in-depth study of naturally occurring behaviour within a culture or social group. It seeks to understand the relationship between culture and behaviour; with culture referring to the beliefs, values, and attitudes of a specific group of people.



Ethnography is more than merely seeing “details”.

It provides explanation.

It is about understanding meaning.

Ethnographers connect details to wider patterns of social life.

It is often associated with anthropologists

Searching for patterns (regularity, and the exceptions to that regularity.)





It is a research method for investigating:

Behaviours

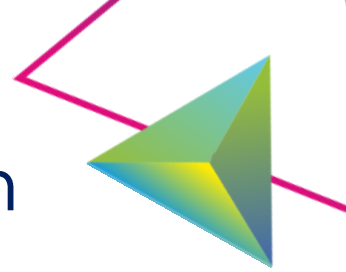
Routines

Social norms

Cultural practices

Rituals

Characteristics of human centered design



- Openness
- Listening
- Empathy
- Extended participant observation
- Long time spent on site (field work)
- Collection of large volumes of materials such as notes, artifacts, audio, and videotapes



Data collection techniques used in Design thinking



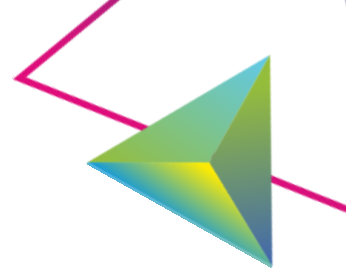
- Interviews
- Document analysis / Scanning
- Cultural probes
- Life stories
- Diaries
- Photos
- Research diaries
- Participant observations



Interviews



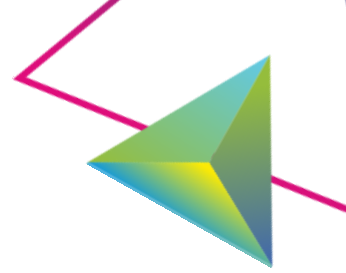
Why interview?



1. Generate insights and concepts that are not generalized (universal) (i.e. interviews can help map out the limits of a general norm or expectation).
2. Expand our understanding of... (social concept).
3. To search for “exceptions to the rule” by charting extreme cases (e.g. a person or a class or a city).
4. To document historical idiosyncratic cases (e.g. personalities).
5. Results can be validated elsewhere by using other interviews.



Listening and observing



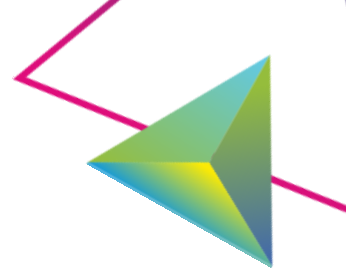
Abandon the turn-taking rule

- In a normal conversation, each actor speaks about half the time.
- The practice of human centered design is to devote yourself to listening attentively.



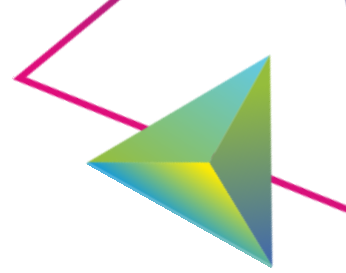
Types of interviewees

- Stakeholder proxies
- Experts
- Extreme users
- Lead users
- Group interview

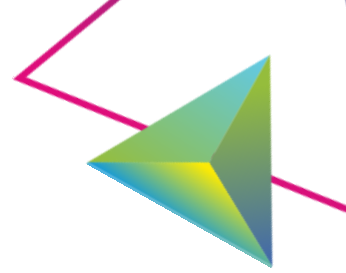


Interview types

- Structured
- Unstructured
- Semi-structured
- Intercept Interview
- Extreme user interviews
- 5 Whys



Structured

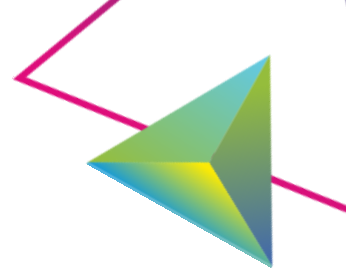


- Uses a well-defined interview topic guide often like a questionnaire.
- Researchers ask the same set of questions to all participants in the same order to minimize the effect of the interview context on interviewee responses.
- Focuses on standardization of the interaction.

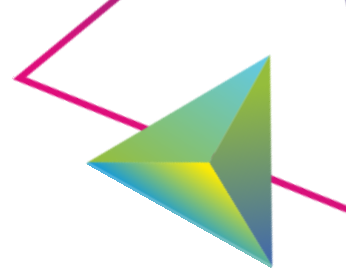


Unstructured

- Spontaneous
- It lets a 'natural' conversation flow
- Respondents set the agenda and highlight most important elements



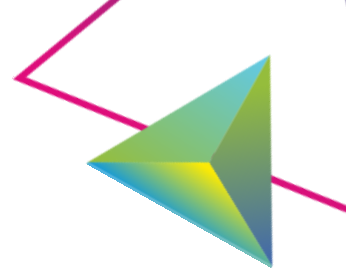
Semi-structured



- Used to gather focused, qualitative textual and contextual data.
- Offers a balance between the flexibility of an unstructured and the rigidity of a structured interview.
- The interviewer relies on some set questions, but there is no rigid prior order assigned for introducing these questions.
- The interview topic guide is used flexibly in each different interview situation.



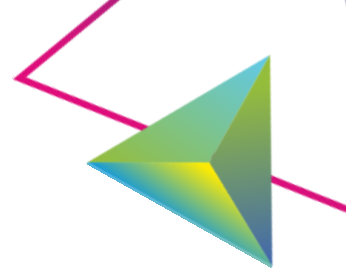
Intercept Interviews



- Opportunistic, quick interviews conducted at the moment of action or engagement by the participant.
- A type of interview where respondents are approached (or intercepted) in specific high traffic locations such as grocery stores or shopping malls. The main part of the interview can take place either immediately on site or in another location (usually nearby).



Extreme User Interviews

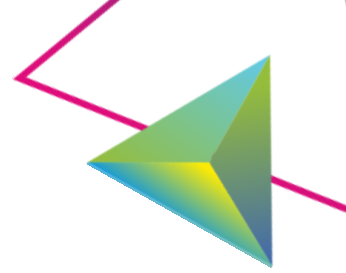


- An extreme user falls at the edge of the bell curve of knowledge or experience of a topic in some way.
- Examples include highly knowledgeable lead users and non-users of a system.
- Helps to identify needs that may not be apparent when engaging with typical users.



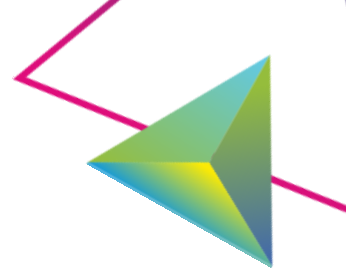
5 Whys

- The “5 Whys” interview tool delves deeper into root causes and uncovers the causal elements that created the problem, issue or challenge, allowing for the development of a solution.
- Ask as many whys as you need in order to get insight at a level that can be addressed (asking five times is typical). You will know you have reached your final “why” because it does not make logical sense to ask why again.



Stages of interview

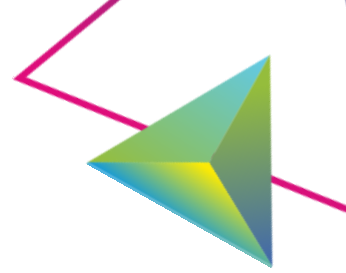
- Thematizing
- Designing
- Interviewing
- Transcribing
- Analyzing
- Verifying
- Reporting



Time for the Exercise



Interview Etiquette



Listen attentively

Do not do more than 2 or 3 interviews a day maximum.

Take time to put participants at ease. Establish good rapport.

Fully inform participants about...

Be flexible in the use of the interview topic guide.

Give participants time to respond (therapeutic pause).



Engage with issues as they arise.

Remember your notes.

Provide feedback to participants.

Team of 2 (lead interviewer, notes & AV) - Debrief right after

A/V recording – record if given permission

Proper note taking or recording (with transcripts optional)

Don't be shy to ask interviewees to repeat themselves

Their words not yours.

You might want to use quotes later in the project (perhaps for Personas)

