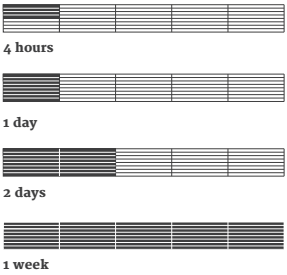
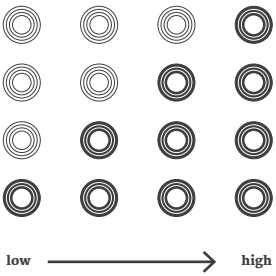
Design Methods — *toolkit*

The MediaLAB Amsterdam method card collection presents a very wide range of design and research methods that can be used to get the necessary insights. The methods are divided into categories relating to the type of insights that can be gained with them. The methods can be about defining goals, knowing context, knowing the user, framing insights, ideation, prototyping or testing.

Duration— Each method card has an estimated time of completion. The estimated time helps to chose a method according to the available time.



Effort— Each card also takes the time for preparation, processing and analysis into account: more effort probably means that more team members should be involved.



Define goals and intentions

Define vision, scenarios, scopes and constraints.

Why are you doing it?
What are you looking for?
Who are you designing for?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Know the context

Explore the background of the project, the situation, the location, the time, the social and technical context.

What are the main factors?

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Know the user

Get to know users, explore their goals, needs and feelings.

Who are the users?
Explore their features, values, standards, emotions.
What are the touchpoints of your user?


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Frame your insights

A way to draw conclusions,
to make lessons learned explicit.

Try to narrow down
the information. Can you extract
the most valuable and important
element from your insights?


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Ideation and concepts

Generate ideas, explore possibilities.
Generate concepts, explore ideas in a very broad sense.

How can you visualize, sketch and conceptualize the requirements arising from your research insights?


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Create and test

Ways to get from concepts to production, prototyping and testing.

Are your ideas valid? Can you create working prototypes from your concepts? How can you test your prototypes with users?


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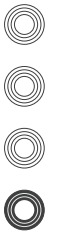
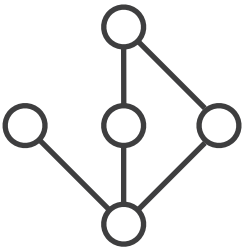
Activity map

2 HOURS



EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Activity map

An activity map is a map that shows a company's strategic position in relation to company activities. A number of higher-order strategic themes are implemented through linked activities.

1. Is each activity contributing positively to the overall strategy?
2. Are there ways of making the activities and the relationships between activities support the strategy better?

RESOURCES

— Michael E Porter. What is strategy? Harvard business Review November-December 1996

— based on Design Methods 1, R. Curedale

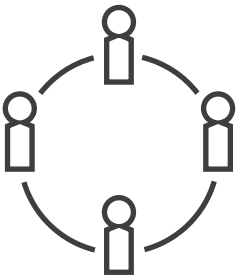
BENEFIT

Broadens mindset; helps develop a unique competitive position.

Actors map

2 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Actors map

The Actors map represents the system of stakeholders and their relationships. It is a view of the service and its context. Stakeholders are organized by their function.

Understanding relationships is an important aspect of service design.

RESOURCES

— (2007) Nicola Morelli, New represantion tecnhiques for designing in a systemic perspective, paper presented at Design Inquires, Stockholm

— based on Design Methods 1, R. Curedale

BENEFIT

Makes implicit knowledge explicit; structures complex reality; flexible for use in different contexts.

CHALLENGE

Not a user-centred method.

Backcasting

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Backcasting

Backcasting is a method for planning the actions necessary to reach desired future goals. This method is often applied in a workshop format with stakeholders participating.

The future scenarios are developed for periods of between 1 and 20 years in the future. The participants first identify their goals and then work backwards to identify the necessary actions to reach these goals.
A typical backcasting question is "How would you define success for yourself in 2015?"

RESOURCES

— Quist, J., & Vergragt, P. 2006. Past and future of backcasting: The shift to stakeholder participation and a proposal for a methodological framework. Futures Volume 38, Issue 9, November 2006, 1027-1045

— based on Design Methods 1, R. Curedale

CHALLENGE

Needs a good moderator and good preparation.

Banned

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Banned

Banned is a method involving creating future scenarios based on imagining a world if a product, service system or experience did not exist and how people might adapt.

1. Decide the question to investigate.
2. Decide time and scope for the scenario process.
3. Identify stakeholders and scenarios.
4. Create storyboards.
5. Analyze the scenarios through discussion.
6. Summarize insights.

RESOURCES

— "Scenarios", IDEO Method Cards

— Carroll, John M. Making use: scenario-based design of human-computer interactions. The MIT press, 2000.

— based on Design Methods 1, R. Curedale

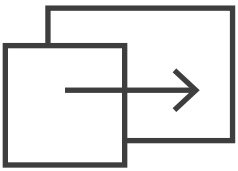
BENEFIT

Exposes problems and opportunities and uncovers new design directions and possibilities not dependent on existing products, services and systems.

Boundary shifting

2 DAYS

EFFORT



DURATION

Define intentions

Know context

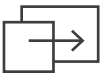
Know user

Frame insights

Ideation and concepts

Create and test

Boundary shifting



Boundary shifting involves identifying features or ideas outside the boundary of the system related to the defined problem and applying them to the problem being addressed.

1. Define the problem.
2. Research into an outside system that may have related ideas or problems to the defined problem.
3. Identify ideas or solutions outside the problem system.
4. Apply the outside idea or solution to the problem being addressed.

RESOURCES

— Walker, David J., Barry KJ Dagger, and Robin Roy. Creative techniques in product and engineering design. Woodhead Publishing, 1991.

— based on Design Methods 1, R. Curedale

BENEFIT

Identifies features or ideas outside the boundary of the system related to the defined problem.

Method 101

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Brainstorming method 101

This is a brainstorming method focused on creating a large number of ideas.

1. Define the problem.
2. Select a moderator.
3. The moderator asks the team to generate 101 solutions to the design problem within a defined time. Allow 30 to 60 minutes.
4. Analyze results and prioritize.

RESOURCES

— Clark, Charles H. "Brainstorming: The Dynamic Way to Create Successful Ideas." (1958)

— based on Design Methods 1, R. Curedale

BENEFIT

Leverages the diverse experiences of a team; a large number of ideas helps to overcome people's inhibitions with regard to innovating.

Method 635

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Brainstorming method 635

Method 635 is a structured form of brainstorming.

1. Your team should sit around the table.
2. Each team member is given a sheet of paper with the design objective.
3. Each team member is given three minutes to generate ideas.
4. Participants pass the sheet to their left.
5. Each participant must come up with three new ideas.
6. Repeat until ideas are exhausted. No discussion at any stage.
7. Analyze ideas as a group.

RESOURCES

— Rohrbach, Bernd. "Creative by rules, method 635, a new technique for solving problems." Absatzwirtschaft 12 (1969): 73-75.

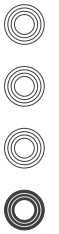
— based on Design Methods 1, R. Curedale

BENEFIT

Generates a lot of ideas quickly. Participants can build on each others ideas.

The Aoki Method

4 HOURS



EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Brainstorming method Aoki

The Aoki or MBS method is a structured brainstorming method that stresses input from all team members.

1. Warm-up: Participants generate ideas for 15 minutes.
2. Participants present their ideas verbally to the larger group.
3. The larger group continues to generate ideas during the individual presentations.
4. For one hour the individual team members further explain their ideas to the group. 5. Idea maps are created by the moderator.

RESOURCES

— Clark, Charles H. "Brainstorming: The Dynamic Way to Create Successful Ideas." (1958)

— based on Design Methods 1, R. Curedale

BENEFIT

Creates a hierarchy of ideas.

TIP

Try to visualize as much as possible instead of writing.

Brainwriting

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Brainwriting

Brainwriting is an alternative to brainstorming; ideas are generated by asking people to write down their ideas rather than presenting them verbally.

1. Define the problem.
2. Each participants should brainstorm 3 solutions in two minutes in written form.
3. Then have them pass the sheet of paper to their left.
4. Have the participants build upon the existing suggestions by writing their own ideas underneath the original solutions. Allow 3 minutes.
5. The process should be repeated as many times as there are people around the table. allowing an additional minute each time.

RESOURCES

— Clark, Charles H. "Brainstorming: The Dynamic Way to Create Successful Ideas." (1958)

— based on Design Methods 1, R. Curedale

CHALLENGE

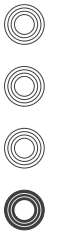
Inhibition and lack of critical thinking.

BENEFIT

Good when participants are shy or from cultures where group interaction is more guarded.

The KJ Method

2 HOURS



EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Brainstorming method KJ

The KJ method is a form of brainstorming. The KJ method places emphasis on the most important ideas.

1. The moderator frames the design challenge.
2. Team members generate ideas on post-it notes.
3. Cards are shuffled and then handed out again to the participants.
4. Each participants should not get any of their own cards back.
5. Each note is read out in order to make no more than 10 groups of cards.
6. Put cards on a whiteboard and discuss insights.

RESOURCES

— Ohiwa, Hajime, Naohiko Takeda, Kazuhisa Kawai, and Akichika Shiomi. "KJ editor: a card-handling tool for creative work support." Knowledge-Based Systems 10, no. 1 (1997): 43-50.

— based on Design Methods 1, R. Curedale

BENEFIT

Generates many ideas and highlights the connections between ideas which is the starting point for a design solution.

SCAMPER

4 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Brainstorming SCAMPER

SCAMPER is a brainstorming technique and creativity method that uses seven words as prompts: Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, Reverse.

1. Select a product or service.
2. Select a diverse design team.
3. Ask questions about the product you identified, using the SCAMPER mnemonic to guide you.
4. Create as many ideas as you can.
5. Analyze.
6. Prioritize.
7. Select the best ideas to further brainstorming.

RESOURCES

— Eberle, Bob. Scamper: Creative games and activities for imagination development. Prufrock Press, 2008.

— based on Design Methods 1, R. Curedale

BENEFIT

Generates innovative solutions. Leverages the diverse experiences of a team.

Sensorial

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Brainstorming Sensorial

This is a brainstorming method focusing on the visual sense which is only a component of the design experience.

1. The moderator frames the design challenge.
2. Team members generate ideas on post-it notes.
3. The team works through 20-minute brainstorming sessions for each sense: vision, smell, touch, hearing, and taste.
4. Ask team members to generate 6 to 10 ideas each within each category.
5. Organize post-it notes into groups through discussion with five concepts in each group, one idea from each sense group, or five different senses in each group.

RESOURCES

— based on Design Methods 1, R. Curedale

CHALLENGE

Some of the ideas that you generate using this tool may be impractical.

BENEFIT

Uses ideas of an initial brainstorming session and builds on these ideas in a second session. Iteration is important.

Trigger

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Brainstorming Trigger

Iteration is important at any stage of the process. This method builds on the results of a previous brainstorming session and uses them in a second session.

1. Ideas from a first brainstorming session are presented to the group.
2. The group creates a hierarchy by voting for the best ideas.
3. Either one or three ideas are selected as the basis for the next brainstorming session.
4. Analyze results and prioritize.
5. Develop actionable ideas.

RESOURCES

— Clark, Charles H. "Brainstorming: The Dynamic Way to Create Successful Ideas." (1958)

— based on Design Methods 1, R. Curedale

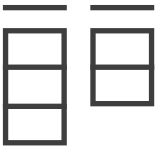
BENEFIT

Uses ideas generated by an initial brainstorming session and builds on these ideas in a second session. Iteration is important.

Closed card sorting

1 DAY

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Closed card sorting

This is a method for understanding the relationships between a number of pieces of data. Participants are asked to arrange individual, unsorted items into groups. A 'closed sort' involves the cards beings sorted into groups, in which the group headings may be defined by the researcher.

1. Recruit 15 to 20 participants who are representative of your user group.
2. Provide a deck of cards using words and images relevant to your concept.
3. Ask your participants to arrange the cards in ways that make sense to them.
4. The user sorts labelled cards into groups. Discuss why.

RESOURCES

— J. Nielsen (May 1995). Card Sorting to Discover the Users' Model of the Information Space

— based on Design Methods 1, R. Curedale

BENEFIT

Provides insights for interface design.

TIP

Ask participants to fill out a second card if they feel it belongs in two groups. Use post cards or post-it notes.

Co-discovery

1 DAY

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Co-discovery

Two participants perform an activity and help each other as they would naturally. They are encouraged to explain what they are thinking about while working on the tasks.

1. Select participants who are representative of end users.
2. Pair them in groups of two.
3. Provide the users with the system to be tested and the scenario of tasks to perform.
4. The test users perform tasks while being observed.
5. Encourage users to explain what they are thinking about.
6. Videorecord the session.

RESOURCES

— Nielsen, Jakob. Usability engineering. Access Online via Elsevier, 1994

— based on Design Methods 1, R. Curedale

BENEFIT

The technique makes it more natural for test users to verbalize their thoughts during the test.

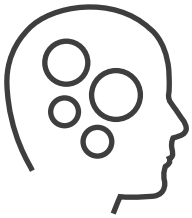
TIP

It is preferable to pair users who know each other.

Cognitive map

1 DAY

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Cognitive map

A cognitive map is a mental map of an environment. Cognitive maps are a method by which people remember and recall a physical or virtual environment and spatial knowledge.

1. Ask a subject to create a map showing how they navigate in a real or virtual space.
2. Select participants.
3. Ask the participant to describe how they get to a location and how they return, referencing the obstacles.
4. Maps can be created by a group of people to incorporate different viewpoints.

RESOURCES

— Eden, Colin. "On the nature of cognitive maps." Journal of management studies 29, no. 3 (1992): 261-265.

— based on Design Methods 1, R. Curedale

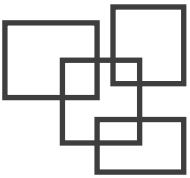
BENEFIT

Reveals how people navigate in a real or virtual space. Uncovers how people make decisions and perceive spaces.

Collage

1 DAY

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

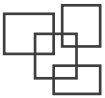
Ideation and concepts

Create and test

Collage

A collage involves glueing images or words onto paper. Research participants are given a large supply of images and words. Images and words should be abstract, so as not to influence the participants too much, but may include objects, people and interactions.

1. Define the theme.
2. Print words and images onto sticker sheets.
4. Distribute scissors.
5. Groups create collages.
6. Participants tell own stories through the collages.
7. Collect the stories.
8. Analyze the stories.



RESOURCES

— Taylor, Brandon. Urban Walls: A Generation of Collage in Europe & America: Burhan Dogançay with François Dufrêne, Raymond Hains, Robert Rauschenberg, Mimmo Rotella, Jacques Villeglé, Wolf Vostell. Hudson Hills, 2008.

— based on Design Methods 1, R. Curedale

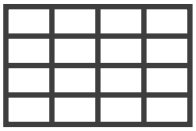
BENEFIT

Enhances discourse, illustrates theses, and good for anchoring scientific observations in human experience.

Competitor analysis

1 DAY

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Competitor analysis

Competitor analysis is a strategic design tool that can identify opportunities and threats. Comparing competitors using one framework is an essential tool of corporate strategy.

1. A competitor analysis includes five factors:
a. Your competitors.
b. Competitor product offerings.
c. Competitor weaknesses and strengths.
d. Competitor strategies.
e. The market trends.

2. Track competitors' performance over time to understand trends.

RESOURCES

— Fleisher, Craig S., and Babette E. Bensoussan. Business and competitive analysis: effective application of new and classic methods. FT Press, 2007.

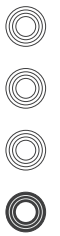
— based on Design Methods 1, R. Curedale

BENEFIT

Allows awareness and adoption of best practices; identifies opportunities and threats.

Concept sketch

1 DAY



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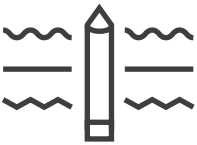


DURATION

Define intentions

Know context

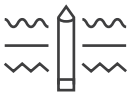
Know user

Frame insights

Ideation and concepts

Create and test

Concept sketch



A concept sketch is a fast freehand drawing.

1. Select a design problem to explore
2. The moderator briefs the design team
3. Individual designers generate 10 sketches in 30 minutes
4. Each designer presents their ideas to the group
5. The groups votes on which ideas they think have the most promise: 2 votes per person
6. Select the three ideas that get the most votes
7. The design team explores those ideas by each generating 10 sketches of developments of the existing ideas over 30 minutes
8. The team votes

RESOURCES

— Olofsson, Erik, and Klara Sjölén. Design sketching:[including an extensive collection of inspiring sketches by 24 students at the Umeå Institute of Design]. KEEOS Design Books, 2007.

— based on Design Methods 1, R. Curedale

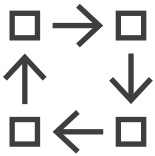
TIP

Don't place more emphasis on the sketch than on the final idea.

Customer experience

1 DAY

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Customer experience map

Customer experience is a method of documenting and visualizing the experiences that customers have as they use a product or service and their responses to their experiences.

1. Identify your team.
2. Identify customer experience.
3. Define the experience as a timeline with stages such as anticipation, entry, engagement, exit, and reflection.
4. Use post-it notes to add positive and negative experiences to the relevant parts of the timeline.
5. Order the experiences from positive to negative. 6. The most negative parts are design opportunities.

RESOURCES

— Cruickshank, Peter. "Customer journey mapping." Smart Cities Guide (2011)

— based on Design Methods 1, R. Curedale

BENEFIT

Identifies the customer experience to be analyzed. Identifies the context and personas. Reduces the number of dissatisfied customers.

Day in the life

1 DAY

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Day in the life

A study in which the designer observes the participant in the location and context of their usual activities, observing and recording events to understand the activities from the participant's point of view.

1. Define the activities to study.
2. Recruit participants.
3. Observe subjects in context.
4. Capture data.
5. Create storyboards with text and timeline.
6. Analyze data.

RESOURCES

— Czarniawska-Joerges, Barbara. Shadowing: and other techniques for doing fieldwork in modern societies. Copenhagen Business School Press DK, 2007.

— based on Design Methods 1, R. Curedale

BENEFIT

Provides insights with little cost and time.

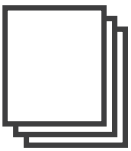
CHALLENGE

Something that seems insignificant may become significant later

Design charette

1 DAY

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Design charette

A design charette is a collaborative design workshop usually held over one day or several days. Charettes are a fast way of generating ideas while involving diverse stakeholders in your decision process.

Charettes have many different structures and often involve multiple sessions. The group divides into smaller groups. The smaller groups present to the larger group.

RESOURCES

— Day, Christopher, and Rosie Parnell. Consensus design: socially inclusive process. Routledge, 2003

— based on Design Methods 1, R. Curedale

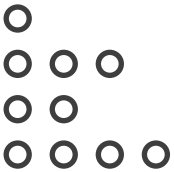
BENEFIT

Promotes trust; easy and inexpensive. Increases the probability of implementation.

Dot voting

2 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Dot voting

This method is a collective way of prioritizing and converging on a design solution that uses group wisdom.

1. Select a team of between 4 and 20 cross-disciplinary participants.
2. Present and explain ideas.
3. Ask the team to vote on their 2 or 3 favourite ideas and total the votes.
4. Rearrange ideas from most voted to less voted.
5. Discuss the ideas that received the most votes and see whether there is a general level of comfort with taking one or more of those ideas to the next step.

RESOURCES

— Diceman, J. "Dotmocracy handbook, version 2.2." (2010).

— based on Design Methods 1, R. Curedale

BENEFIT

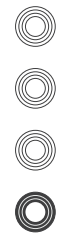
Leverages the strengths of diverse team member viewpoints and experiences.

CHALLENGE

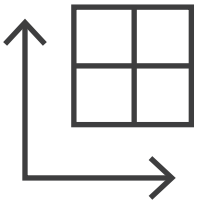
Lack of critical thinking, and subjective assessments.

Eisenhower map

4 HOURS



EFFORT



DURATION

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Eisenhower map

The Eisenhower map is a simple tool that helps you manage your time effectively. Eisenhower is quoted as having said "What is important is seldom urgent and what is urgent is seldom important."

1. Moderator draws grid on whiteboard of flipchart.
2. At the end of each project meeting, the team brainstorms the tasks that need to be completed and places each task on the map.
3. Map individual tasks.
4. Interpret the map.
5. Create strategy.

RESOURCES

— based on Design Methods 1, R. Curedale

BENEFIT

Promotes communication and discussion within the organization, to gain competitive advantage.

CHALLENGE

Can be subjective.

Emotional journey

2 DAYS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Emotional journey

An emotional journey map is a map that visually illustrates people's emotional experience throughout an interaction with an organization or brand.

1. Define the activity of your map. For example it could be a ride on the subway.
2. Collect internal insights.
3. Research customer perceptions.
4. Map journey.
5. Break the journey down into stages.
6. Capture each persona's unique experience.
7. Plot the emotional journey.
8. Analyze the least pleasant emotional stages of the journey.

RESOURCES

— Hetal Joshi. "Customer Journey Mapping: The Road To Success," Cognizant CRM Insights (2009).

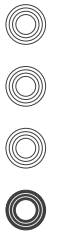
— based on Design Methods 1, R. Curedale

BENEFIT

Gives a visually compelling story of customer experience. Provides a focus for discussion.

Empathy map

1 DAY



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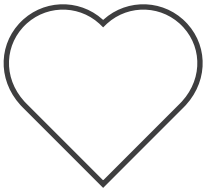

DURATION

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Create and test

Empathy map

Empathy map is a tool that helps a design team to empathize with the people they are designing for. You can create an empathy map for a group of customers or a persona.

1. Draw a circle to represent your target persona.
2. Divide the circle into sections that represent aspects of that person's sensory experience.
3. Ask your team to describe their experience from the persona's point of view.
4. What are the persona's needs and desires?

RESOURCES

— Gray, Dave, Sunni Brown, and James Macanufo. Gamestorming: A playbook for innovators, rulebreakers, and changemakers. O'reilly, 2010.

— based on Design Methods 1, R. Curedale

BENEFIT

Helps to get a good insight in their consumers and their context.

Field study

A WEEK

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Field study

A field study is a study carried out in the context of people rather than in a design studio or a laboratory. A field study involves observing or interviewing people in their natural environment.

1. Define goals.
2. Develop plan.
2. Create study material such as question guides, release forms.
3. Perform observations and interviews.
4. Analyze data.
5. Develop insights.

RESOURCES

— Jarvie, I. C. "On theories of fieldwork and the scientific character of social anthropology." Philosophy of Science (1967): 223-242.

— based on Design Methods 1, R. Curedale

BENEFIT

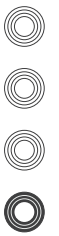
Focuses on details and experience and provides evidence.

CHALLENGE

Information may become obsolete.

Fishbone diagram

2 HOURS



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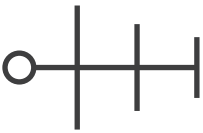

DURATION

Define intentions

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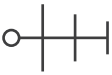
Fishbone diagram



Fishbone diagrams are diagrams that show the causes of a specific event.

1. Prepare the six arms of the diagram on a whiteboard.
2. Define the problem clearly as a short statement in the head of the diagram.
3. Describe the causes of each bone and write them down at the end of each branch. Use the 4 M's as categories: Machine, Man, Methods, Materials.
4. Minor causes are listed around the major causes. 5. Interpret the diagram once it's finished.

RESOURCES

— Ishikawa, Kaoru, and Kaoru Ishikawa. Guide to quality control. Vol. 2. Tokyo: Asian Productivity Organization, 1982.

— based on Design Methods 1, R. Curedale

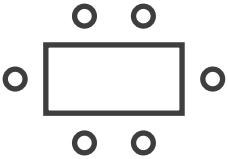
BENEFIT

Use this in the predesign phase to understand the root causes of a problem to serve as the basis for design. Makes deeper issues visible.

Focus group

1 DAY

EFFORT



DURATION

Define intentions

Know context

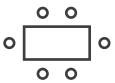
Know user

Frame insights

Ideation and concepts

Create and test

Focus group



Focus groups are group discussions, usually with 6 to 12 participants, led by a moderator. Focus groups are used during the design of products, services, and experiences, to get feedback from people.

1. Select a good moderator.
2. Prepare a screening questionnaire.
3. Decide incentives for participants.
4. Select facility.
5. Recruit participants.
6. Participants sit around a table.
7. The first question should encourage talking and participation.
8. The moderator manages responses and asks important questions.
9. Analyze results while still fresh.
10. Summarize key points.

RESOURCES

— Frankfort-Nachmias, Chava, and David Nachmias. Study Guide for Research Methods in the Social Sciences. Macmillan, 2007

— based on Design Methods 1, R. Curedale

CHALLENGE

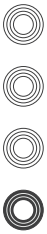
Needs a good moderator and good preparation.

BENEFIT

Helps to identify the expectations, needs and desires of customers; gains several different perspectives about a design problem.

Gantt chart

2 HOURS



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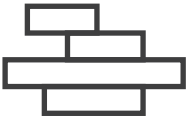


DURATION

Define intentions

Know context

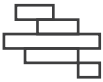
Know user

Frame insights

Ideation and concepts

Create and test

Gantt chart



A Gantt chart is a bar chart that shows the tasks of a project together with the start time and the time from start to completion of each task.

1. Identify the tasks.
2. Identify the milestones in the project.
3. Identify the time required for each task.
4. Identify the order and dependencies of each task.
5. Identify the tasks that can be undertaken in parallel.
6. Draw a horizontal time axis along the top or bottom of the page.
7. Draw a list of tasks.
8. Draw a diamond for tasks that are short in duration and a horizontal bar for longer activities.

RESOURCES

— Gantt, Henry Laurence. A graphical daily balance in manufacture. 1903.

— based on Design Methods 1, R. Curedale

BENEFIT

Ensures that tasks are completed on time. Tracks a design project.

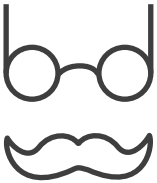
CHALLENGE

Keep updating the Gantt chart regularly to make it work.

Heuristic evaluation

1 DAY

EFFORT



DURATION

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Create and test

Heuristic evaluation

Also known as expert evaluation. It is used to identify user problems. Experts judge whether a user interface follows a list of established usability heuristics.

1. Establish a panel of experts.
2. Establish an agreed set of evaluative criteria.
3. Each expert inspects the interface alone.
4. Individual results are aggregated.
5. A report is prepared which identifies a prioritized list of problems with the interface.

RESOURCES

— Nielsen, Jakob, and Rolf Molich. "Heuristic evaluation of user interfaces." In Proceedings of the SIGCHI conference on Human factors in computing systems, pp. 249-256. ACM, 1990.

— based on Design Methods 1, R. Curedale

BENEFIT

This method can be used early in the design process and is inexpensive and fast.

Infographic

4 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Infographic

An infographic is a graphic that displays information. The aim of an infographic is to present complex information and clearly communicate the significance of the data. It can also be used to raise new questions.

1. Start collecting your information.
2. Chose visual models according to the type of information you need to display.

RESOURCES

— Emerson, John. "Visualizing information for advocacy: an introduction to information design." (2008)

— based on Design Methods 1, R. Curedale

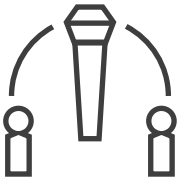
TIP

Focus on clarity. The simpler the better.

1-on-1 interview

2 DAYS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

1-on-1 interview

A one-on-one interview is an interview between a researcher and a participant in a face-to-face situation.

1. Select questions and subjects carefully.
2. Create interview guide.
3. Conduct a pre-interview to refine the guide.
4. Talk, watch, listen and observe.
5. Document with video, audio and notes.

RESOURCES

— Rubin, Herbert J., and Irene S. Rubin. Qualitative interviewing: The art of hearing data. Sage Publications, 2012.

— based on Design Methods 1, R. Curedale

BENEFIT

Facilitates quick and early discovery; best for personal information; works well in combination with other methods.

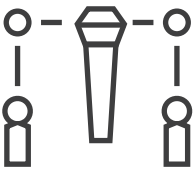
TIP

Be neutral; be prepared.

Structured interview

2 DAYS

EFFORT



DURATION

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Know context

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Create and test

Structured interview

In a structured interview the researcher prepares a list of questions, script, or interview guide to follow during an interview.

1. The researcher should follow the script exactly.
2. The interviewer is required to show consistency in behaviour across all interviews.

RESOURCES

— Rubin, Herbert J., and Irene S. Rubin. Qualitative interviewing: The art of hearing data. Sage Publications, 2012.

— based on Design Methods 1, R. Curedale

BENEFIT

Easy to use when having several interviews because the gathered information can be analyzed easily.

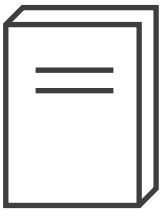
TIP

Write down everything you want to say, and follow the script exactly.

Literature review

2 DAY

EFFORT



DURATION

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Frame insights

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Create and test

Literature review

A literature review is a detailed review of books, articles, dissertations, conference proceedings and other written sources relevant to a particular area.

1. Define your area of interest.
2. Plan your search.
3. Identify key authors.
4. Define the scope.
5. Define the style of review.
6. Identify sources and search tools.
7. Search the literature.
8. Manage your references.
9. Critically analyze the information.
10. Synthesize the information.
11. Write the review.

RESOURCES

— Hart, Chris. Doing a literature review: Releasing the social science research imagination. Sage, 1998.

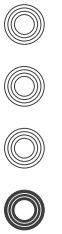
— based on Design Methods 1, R. Curedale

BENEFIT

Identifies gaps in previous research and areas of existing research to prevent duplication of effort.

Lotus blossom

2 HOURS



EFFORT

DURATION

Define intentions

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Know user

Frame insights

Ideation and concepts

Create and test

Lotus blossom

The lotus blossom is a creativity technique that consists of a framework for idea generation that starts by generating eight concept themes based on a central theme. Each concept then serves as the basis for eight further theme explorations or variations.

1. Draw up a lotus blossom diagram made up of a square in the centre of the diagram and eight circles surrounding the square.
2. Write the problem in the centre box of the diagram.
3. Write eight related ideas around the centre.
4. Each idea then becomes the central idea of a new theme or blossom.

RESOURCES

—Michalko, Michael. "Thinkpak. Berkeley." CA: Ten Speed Press, pg 2 (1994): 384.

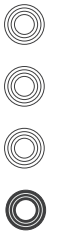
— based on Design Methods 1, R. Curedale

BENEFIT

Shifts you from reacting to a static snapshot of the problem and broadens your perspective toward the problem and the relationships and connections between its components.

Market segmentation

1 DAY



EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Market segmentation

A market segment is a group of people with characteristics in common. A market segment is distinct from other segments, it exhibits common needs; it responds similarly to a market stimulus.

1. Based on what people do.
2. Based on who people are.
3. Based on how people think or feel.
4. A combination of those factors.

RESOURCES

— Goldstein, Doug, and C. Blogger. "What is Customer Segmentation?." MindofMarketing. net, May (2007).

— based on Design Methods 1, R. Curedale

BENEFIT

Exhibits common needs; will help optimize your return on investment.

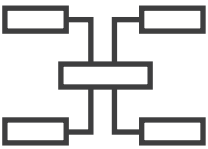
CHALLENGE

Everyone is different; market segmentation assumes uniformity.

Mind map

4 HOURS

EFFORT



DURATION

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Create and test

Mind map

A mind map is a diagram used to represent a number of ideas or things. Understanding connections is the starting point for design. Mind maps are a method of analyzing information and relationships.

1. Start in the centre with a key word or idea. Put boxes around this node.
2. Use images, symbols or words for nodes.
3. Select keywords.
4. Associated nodes should be connected by lines.
5. Use thicker lines to show the strength of associations.
6. Use radial arrangements of nodes.

RESOURCES

—Willis, Cheryl L., and Susan L. Miertschin. "Mind maps as active learning tools." Journal of Computing Sciences in Colleges 21, no. 4 (2006): 266-272.

— based on Design Methods 1, R. Curedale

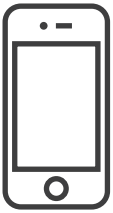
BENEFIT

Identifies relationships; problem-solving and brainstorming; summarizing information.

Mobile diary study

1 DAY

EFFORT



DURATION

Define intentions

Know context

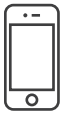
Know user

Frame insights

Ideation and concepts

Create and test

Mobile diary study



A mobile diary study is a method that uses a portable device to capture a person's experiences in context when and where they happen, such as their workplace or home. Participants can create their entries from their location on mobile phones or tablets.

1. Define the intent.
2. Define the audience.
3. Define the context.
4. Define the technology.
5. Automated text messages are sent to participants to prompt an entry.
6. Analyze data.

RESOURCES

— Coover, R. "Using digital media tools in cross-cultural research, analysis and representation." Visual Studies 19, no. 1 (2004): 6-25.

— based on Design Methods 1, R. Curedale

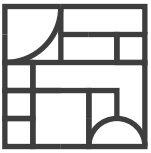
BENEFIT

Collection of data occurs in real time. This is a convenient method for recording diary entries.

Mood board

4 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Mood board

A mood board is a collage of images and words, and may include samples of colours and fabrics. It is used to convey the emotional communication of an intended design.

A mood board helps to convey complex emotional ideas at an early stage in a design project. It provides a focus for team discussion and alignment.

RESOURCES

— McKelvey, Kathryn, and Janine Munslow. Fashion forecasting. John Wiley & Sons, 2009.

— based on Design Methods 1, R. Curedale

BENEFIT

It is fast and inexpensive.

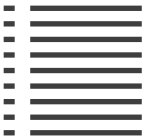
CHALLENGE

It is subjective.

Nine dimensions

1 DAY

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Nine dimensions

One of a number of ethnographic frameworks that have been developed to give structure to observations and to ensure that the researcher doesn't miss important data.

Space: layout of physical setting
Actors: details of the people involved
Activities: the various activities of the actors
Objects: physical elements
Acts: specific individual actions
Events: particular occasions
Time: the sequence of events
Goals: what the actors are attempting to accomplish
Feelings: emotions in given contexts

RESOURCES

— Spradley, James P. "Participant observation." (1980): xi-195.

— based on Design Methods 1, R. Curedale

BENEFIT

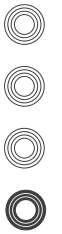
Gives structure to research; provides some certainty in the uncertain environment of fieldwork.

TIP

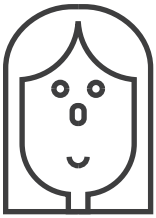
Sketch a map of your observation environment. Be discreet.

Persona

1 DAY



EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Persona

A persona is an archetypal character that represents a group of users who share common goals, attitudes, and behaviours when interacting with a particular product or service.

1. Personas need to be created using data from real users.
2. Collect data through observation, interviews, ethnography.
3. Segment the users or customers.
4. Create the personas. Avoid stereotypes.
5. Each persona should be different; each should have life goals which are personal aspirations.
6. Personas are given a name and a photograph.

RESOURCES

— Pruitt, John, and Tamara Adlin. The persona lifecycle: keeping people in mind throughout product design. Morgan Kaufmann, 2010.

— based on Design Methods 1, R. Curedale

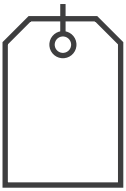
BENEFIT

Helps in gaining buy-in from stake holders. Helps create empathy for users and reduces self-reference.

Post-mortem

2 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Post-mortem

This is a method for the team to evaluate - after the project is completed - how successful the team was in meeting the initial project goals.

1. The moderator asks each team member and / or stakeholder to assign a percentage to how much they were able to meet the initial project goals.
2. Moderator asks: “What could have we done to achieve 100% for this goal?”
3. Record the session and review it before the next project.

RESOURCES

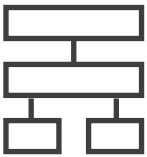
— Dingsøyr, Torgeir, and Geir Kjetil Hanssen. "Extending agile methods: postmortem reviews as extended feedback." In Advances in Learning Software Organizations, pp. 4-12. Springer Berlin Heidelberg, 2003.

— based on Design Methods 1, R. Curedale

Problem tree

4 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Problem tree

A problem tree is a tool for clarifying the problems addressed by a design project. It shows a structured hierarchy of problems with higher-level problems branching into related groups of sub-problems.

1. Brainstorm a list of design problems.
2. Create a written list of problems.
3. Create a list of higher- and lower-level problems by sorting the original list.
4. Create a problem tree.

RESOURCES

— Hovland, Ingie. "Successful Communication." London: ODI (2005).

— based on Design Methods 1, R. Curedale

BENEFIT

Identifies a core problem and its root causes; builds a shared sense of understanding, purpose and action.

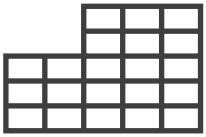
CHALLENGE

It may be difficult to understand all the effects and causes of a problem early in a project.

Pugh's matrix

4 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Pugh's matrix

A Pugh's matrix is a design evaluation method that uses criteria in an evaluation matrix to compare alternative design directions.

1. Develop the evaluation criteria.
2. Identify the design criteria to be compared.
3. Generate scores.
4. Calculate the total scores.
5. Iterate, refine, and optimize design.
6. Document the results.

RESOURCES

— Pugh, Stuart, and Don Clausing. Creating Innovtive Products Using Total Design: The Living Legacy of Stuart Pugh. Addison-Wesley Longman Publishing Co., Inc., 1996.

— based on Design Methods 1, R. Curedale

BENEFIT

Overcomes shortcomings in design; makes subjective observations more objective.

Role playing

4 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Role playing

Role playing is a research method in which the researcher physically acts out the interaction or experience of the user of a product, service or experience. Role playing can be used to predict or explore future interactions with concept products or services.

1. Identify the situation.
2. Create storyboards.
3. Assign roles.
4. Isolate moments in which the users interact with the product or service.
5. Use your own intuitive responses to iterate and refine the design.
6. Discuss insights.

RESOURCES

— Greenberg, Jerald, and Don E. Eskew. "The role of role playing in organizational research." Journal of management 19, no. 2 (1993): 221-241.

— based on Design Methods 1, R. Curedale

BENEFIT

Helps a designer to gain empathy and insight into the experience of a user. It is useful for unfamiliar situations.

Survey

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Survey

A survey is a research tool made up of a number of questions. Questionnaires may be designed for statistical analysis. This is a primary research method.

1. Define the questions to research.
2. Select the participants.
3. Prepare the questions.
4. Use closed questions, with multiple choice answers, or open questions.
5. Pre-test the questionnaire.
6. Questions should flow logically.

RESOURCES

— Gillham, Bill. Developing a questionnaire. Continuum, 2000.

— based on Design Methods 1, R. Curedale

BENEFIT

May be designed for statistical analysis. Easy to analyze and quick to complete.

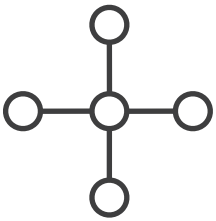
TIP

Avoid complex and leading questions; adjust the style of the questions to the target audience.

Stakeholders map

2 HOURS

EFFORT



DURATION

Define intentions

Know context

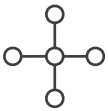
Know user

Frame insights

Ideation and concepts

Create and test

Stakeholders map



A stakeholders map is used to document key stakeholders and their relationships. The map serves as reference for the design team.

1. Develop a categorized list of the members of the stakeholder community.
2. Assign priorities.
3. Can initially be documented on a whiteboard with post-it-notes and consolidated as a diagram through several iterations.

RESOURCES

— Mitchell, Ronald K., Bradley R. Agle, and Donna J. Wood. "Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts." Academy of management review 22, no. 4 (1997): 853-886.

— based on Design Methods 1, R. Curedale

BENEFIT

Stakeholder mapping helps researchers to identify negative stakeholders and their associated risks.

Storyboard

4 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Storyboards

A storyboard is a narrative tool derived from cinema. A storyboard is a form of prototyping which communicates each steps of an activity, experience, or interaction.

1. Decide what story you want to describe.
2. Choose a story and a message: what do you want the storyboard to express?
3. Create your characters.
4. Think about the whole story rather than one panel at time.
5. Create the drafts and refine them through an iterative process.
6. Illustrations can be sketches or photographs.
7. Keep texts short and informative.

RESOURCES

— Cristiano, Giuseppe. Storyboard design course: principles, practice, and techniques. London, UK: Barron's Educational Series, 2007.

— based on Design Methods 1, R. Curedale

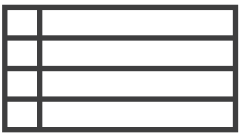
BENEFIT

A form of prototyping. Conveys an experience and allows proposed activities to be discussed and refined. Can be used to help designers identify opportunities or problems.

Swimlane

4 HOURS

EFFORT



DURATION

Define intentions

Know context

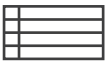
Know user

Frame insights

Ideation and concepts

Create and test

Swimlanes



A swimlane is a visual element used in process flow diagrams; it visually distinguishes responsibilities for sub-processes in a business process. Swim lanes may be arranged either horizontally or vertically.

1. Define the service or experience to focus on.
2. A blueprint can be created in a brainstorming session.
3. Define activities under each header.
4. Link the contact or customer touchpoints.

RESOURCES

— Hollins, Gillian, and Bill Hollins. Total Design: managing the design process in the service sector. Pitman, 1991.

— based on Design Methods 1, R. Curedale

http://en.wikipedia.org/wiki/Swim_lane

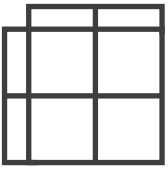
BENEFIT

Shows parallel streams for user, business, and technical process flows. More tangible than intuition and makes the process more efficient.

SWOT analysis

2 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

SWOT analysis

A SWOT analysis is a structured planning method used to evaluate the strengths, weaknesses, opportunities, and threats involved in a project.

Strengths: characteristics of a project that give it an advantage over others.
Weaknesses: characteristics that place the business or project at a disadvantage relative to others.
Opportunities: elements that the project could exploit to its advantage.
Threats: elements in the environment that could cause trouble for the business or project.

RESOURCES

— Hill, Terry, and Roy Westbrook. "SWOT analysis: it's time for a product recall." Long range planning 30, no. 1 (1997): 46-52.

http://en.wikipedia.org/wiki/SWOT_analysis

BENEFIT

Good for understanding your strengths and weaknesses, and for identifying both the opportunities open to you and the threats you face.

Think out loud

2 DAYS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Think out loud

Think out loud protocols involves participants verbalizing their thoughts while performing a set of tasks. Users are asked to talk about whatever they are looking at, thinking, doing, and feeling.

1. Identify users.
2. Choose representative tasks.
3. Create a prototype.
4. Select participants.
5. Take notes of everything users say, without attempting to interpret their actions and words.

RESOURCES

Lewis, Clayton. Using the" thinking-aloud" method in cognitive interface design. IBM TJ Watson Research Center, 1982.

— based on Design Methods 1, R. Curedale

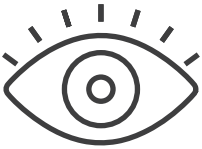
BENEFIT

Great when combining with other methods like testing and interviewing. Enables observers to see first-hand the process of task completion.

Through other eyes

1 DAY

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Through other eyes

At several moments during a design project it is useful to invite an outside group to review the state of the design and to tell your design team if they think that your design direction is real and good.

1. Define your design problem clearly.
2. Select a group of outside people who are representative of the end users of a product or service.
3. Prepare a presentation that clearly communicates the favoured concept.
4. Prepare a question guide to help your design team obtain useful feedback.
5 Review the design with the outside group.

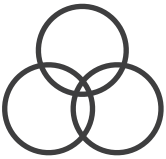
RESOURCES

— based on Design Methods 1, R. Curedale

Venn diagram

4 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Venn diagram

A Venn diagram or set diagram is a diagram that shows all possible logical relations between a finite collection of sets.

Useful for simplifying and communicating data related to user populations and design features.

RESOURCES

— Grimaldi, Ralph P. Discrete and Combinatorial Mathematics, 5/e. Pearson Education India, 2006.

— based on Design Methods 1, R. Curedale

http://en.wikipedia.org/wiki/Venn_diagram

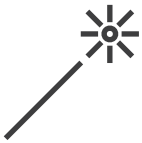
BENEFIT

Helps to get good insight into consumers and their context.

Wizard of Oz

2 DAYS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Wizard of Oz

Wizard of Oz is a research method in which participants interact with a computer interface that subjects believe to be responding to their input, but which is being operated by an unseen person.

1. The wizard sits in a place invisible to the research participant.
2. The wizard observes the user's actions, and initiates the system's responses.
3. The wizard watches live video from a camera focused on the participants.

RESOURCES

— Höysniemi, Johanna, Perttu Hämäläinen, and Laura Turkki. "Wizard of Oz prototyping of computer vision based action games for children." Proceedings of the 2004 conference on Interaction design and children: building a community. ACM, 2004.

— based on Design Methods 1, R. Curedale

BENEFIT

Is good for the testing of preliminary interface prototypes, and can identify problems with an interface concept.

Written scenario

4 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Written scenario

Scenarios are stories that describe a possible future event. Scenarios are used by organizations to understand the different ways that future events might unfold.

1. Decide on the key question to be analyzed.
2. Determine stakeholders, goals, and the scope of the scenario.
3. Map basic trends and driving forces.
4. Consider key uncertainties.
5. Determine a starting point for the scenario.
6. Produce 7 - 9 mini-scenarios and then reduce the number to 3
7. In simple language, describe the interactions.

RESOURCES

— Schoemaker, Paul JH. "Scenario planning: a tool for strategic thinking." Sloan management review 36 (1995): 25-25.

— based on Design Methods 1, R. Curedale

BENEFIT

Helps the designer to understand the interactions of an intended user with a product service or experience. Can also be used for evaluating an intended design.

WWWWWH

4 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

WWWWWH

"Who, What, Where, When, Why, and How?" is a method for obtaining a thorough understanding of a problem. Journalists will argue that your story isn't complete until you have answered all six questions.

1. Who is involved?
2. What occurred?
3. When did it happen?
4. Where did it happen?
5. Why did it occur?
6. How did it happen?

RESOURCES

— based on Design Methods 1, R. Curedale

BENEFIT

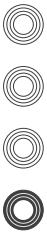
The method is for obtaining a thorough understanding of a problem. It helps to create a story that communicates clearly the nature of an activity or event.

CHALLENGE

The answers may be subjective.

Wireframes

4 HOURS



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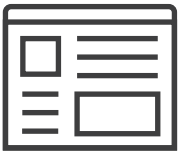


DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Wireframes

Wireframes are simplified outlines of the elements of a web page. They are useful for communicating the functionality of a website in order to get feedback on its design. The wireframe depicts the page layout, interface and navigation, and how these elements interact in use.

Wireframes can be drawn by hand, using tools like Adobe Photoshop, Illustrator, or wireframe software. List all the elements that you want in your website, using simple boxes or outlines. Review the design and adjust as necessary. Make a wireframe for each page in your website.

RESOURCES

— Brown, Dan M. (2011). Communicating Design: Developing Web Site Documentation for Design and Planning.

BENEFIT

Useful for getting feedback on a design. Speeds up the iteration process. Helps to identify needed changes early on in development. Low cost.

CHALLENGE

Wireframes do not explain interactive detail involving movement.

Paper Prototyping

2 HOURS

EFFORT

DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Paper Prototyping

Paper prototyping is a quick and cheap way of gaining insight without the need for costly investment. Simulates the function but not the aesthetics of a proposed design.

It is more focused on the broad underlying design ideas – such as content, form and structure, the 'tone' of the design, key functionality requirements, and navigational structure.

RESOURCES

— Benyon, David. (2010) Designing Interactive Systems

CHALLENGE

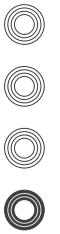
They are designed to be produced quickly, and thrown away as quickly.

BENEFIT

At an early stage of design, involving people in the review of the general scope and organization of functionality.

Navigation map

2 HOURS



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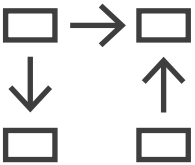


DURATION

Define intentions

Know context

Know user

Frame insights

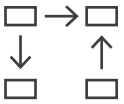
Ideation and concepts

Create and test

Navigation maps

Navigation maps focus on how people move through a website or application and how they experience it.
Each page in the website, or location in the application, is represented by a box or heading, and every page that can be accessed from that page should flow from it.

Each page in the website, or location in the application, is represented by a box or heading, and every page that can be accessed from that page should flow from it.



RESOURCES

— Benyon, David. (2010) Designing Interactive Systems

BENEFIT

The maps can be used with scenarios to 'walk through' particular activities, and are a very good way of spotting poor aspects of design.

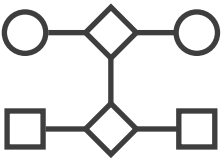
TIP

Include all possible paths (i.e. backwards and forwards from a page); this will highlight sections where people might get stranded.

E/R model

4 HOURS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

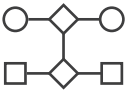
Create and test

E/R model

The Entity-relationship model - also known as the ERD (Entity Relationship Diagram) - is an abstract representation of structured data, used to describe all of the data that will be used in the computer system.

E/R models are used to illustrate the connections (relationship) between objects (entities) in a database. For example, in a hotel, the relationship between hotel rooms, guests, stay, etc.

The time and size of the model depends of the complexity of the system.



RESOURCES

— Lauesen, Soren. (2005) User Interface Design: A Software Engineering Perspective.

CHALLENGE

A basic understanding of databases is required for the design of a meaningful model. The time and size of the model depends of the complexity of the system.

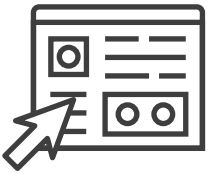
BENEFIT

They are a good tool to determine which data you will need and how it will be used, as well as a starting point in building a database.

Clickable Prototype

2 DAYS

EFFORT



DURATION

Define intentions

Know context

Know user

Frame insights

Ideation and concepts

Create and test

Clickable Prototype

A Clickable Prototype is a prototype that looks like and may work like the finished product. It simulates the aesthetic of a proposed design.

1. Create final design.
2. Build prototype.
3. Test your product
4. Evaluate the results

RESOURCES

— Rudd, Jim; Ken Stern and Scott Isensee. "Low vs. high-fidelity prototyping debate." interactions 3, no 1 (1996):76-85.

— based on Design Methods 1, R. Curedale

CHALLENGE

Time-consuming and laborious.

BENEFIT

Can provide a realistic impression of the end product.