

# Mental Model

NUMBER OF PARTICIPANTS	FACILITATORS	CATEGORY	DURATION	LEVEL OF DIFFICULTY
Up To 20	1 Moderator, 1 Notetaker	Ideation Phase	25-30min	Simple

## Description

Mental models are advanced methods which give you a deep and clear understanding of users motivations and thoughts, along with the emotional and philosophical mindset in which they are working. It consists of several sections, with several groups. Mental models are simplified affinity diagrams of behaviors made from real ethnographic data which is gathered from user perspectives.

An Affinity Diagram is a tool that is used to gather large amounts of real data (ideas, opinions, issues) and organizes them into groups based on their relationships. This is an efficient way to get people to work on a creative level and to solve the difficult issues. To create a mental model, you have to discuss with people about what they're doing, their activities, look for patterns, and organize those patterns from the bottom up into a model.

## Materials

- ▶ Notes from observations
- ▶ Quotes from interviews
- ▶ Cardboard
- ▶ Flipchart Paper
- ▶ Sticky Notes
- ▶ Markers
- ▶ Scissors

## Preparation

Before creating a mental model we have to conduct interviews and workshops with the users for gathering the user perspective data. The interviews conducted can be informal to gather large amounts of data from users which should provide feedback and suggestions. The data should be collected from as many users as possible. All the thoughts from the user perspective and needs must be recorded in the interview.

## Step-by-Step Instructions

1. The 3 users have to discuss the topic given to them and understand the topic and its problems clearly.
2. After analysing the topic the users have to provide their feedbacks and suggestions which is to improve the process
3. The notetaker has to observe and collect all the ideas and points from the user.
4. The users have to use the think aloud method so that they should give every idea that comes in their mind.
5. After collecting the large amount of real data from the users the moderator has to group them based on their relationship and similarity.
6. Also the moderator has to separate them based on the type of user such as developer, designer or end users.
7. So that the problem and issues from every point of view from users will be observed and documented.
8. Group and align the ideas based on the common interest of users and create them as a mental model
9. Once you look back into the diagram every type of users will understand the issues and their respective solutions form their end
10. Finally step back and look at the whole model with your team so you can develop your long term design vision.

## Remarks, Tips, Limitations

### **Tips**

- ▶ Understand the users' world and develop concepts clearly as a team.
- ▶ Recognize opportunities and deficiencies in the solution they were making.

- ▶ Improves the confidence of the design will be better and improves customer experience.

### Limitations

- ▶ Our experiences in day-to-day life do not provide us with the proper tools to form a competent mental model.
- ▶ Amount of data is overwhelming and takes a long time to create.
- ▶ Analysis, slotting content, decision making with a team is difficult.

**Strengths:** Guarantees design satisfaction when expectations are met with a tool. Helps designers and researchers to understand users.

**Weaknesses:** A lot of data, takes much time to sort out and create the mental model. Might differ from mental model users would define (gets mixed up or misunderstood)

### References

<https://boxesandarrows.com/files/banda/what-is-your-mental/Excerpt.MentalModels.IndiYoung.pdf>

Jim Blythe, L. Jean Camp, "Implementing Mental Models," in Workshop on Semantic Computing and Security, April 2012.

<https://www.crazyegg.com/blog/how-to-design-mental-models>



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