BRAINSTORMING, MINDMAPPING AND HYPOTHESIS DEVELOPMENT

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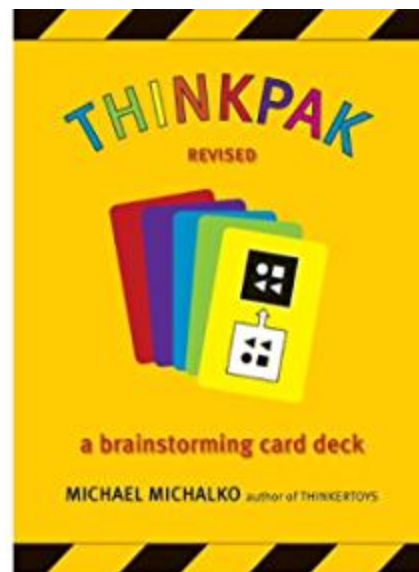
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Real life situations

- Research task (topic) is set, but there is no clear idea which direction to go
- Interests of group members are rather diverse (almost no overlappings)
- There are to many ideas flying around, too much literature to take into consideration,etc.
- There is a practical problem but there is no solution yet

Brainstorming

Brainstorming is a method of generating ideas and sharing knowledge to solve a particular commercial or technical problem, in which participants are encouraged to think without interruption. Brainstorming is a group activity where each participant shares their ideas as soon as they come to mind. At the conclusion of the session, ideas are categorized and ranked for follow-on action.

Brainstorming and Beyond

A User-Centered Design Method

Chauncey Wilson

MK

THINKPAK

REVISED

a brainstorming card deck

MICHAEL MICHALKO author of THINKERTOYS

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Tips for Brainstorming

1. State the purpose and objective of the brainstorming session from the onset

2. Set ground rules for participants

3. Give everyone an opportunity to participate

4. Solicit all ideas and opinions – nothing is rejected until consensus building takes place

5. After exhausting all ideas, eliminate certain ideas, e.g. not relevant, duplicative, etc.

6. Finalize outcome of the brainstorming process through consensus: Highest Priority, Assigning Points, etc.

Bad idea brainstroming

Task: to generate as many bad ideas as possible
- Participants should be informed about the task
- Generate ideas
- Explain why they are terrible
- List all bad ideas
- Use for your advantage

BUILD ON THE IDEAS OF OTHERS

DEFER JUDGEMENT
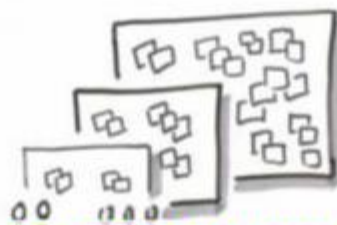
STAY FOCUSED ON TOPIC

FAIL EARLY AND OFTEN

BE VISUAL

ONE CONVERSATION AT A TIME
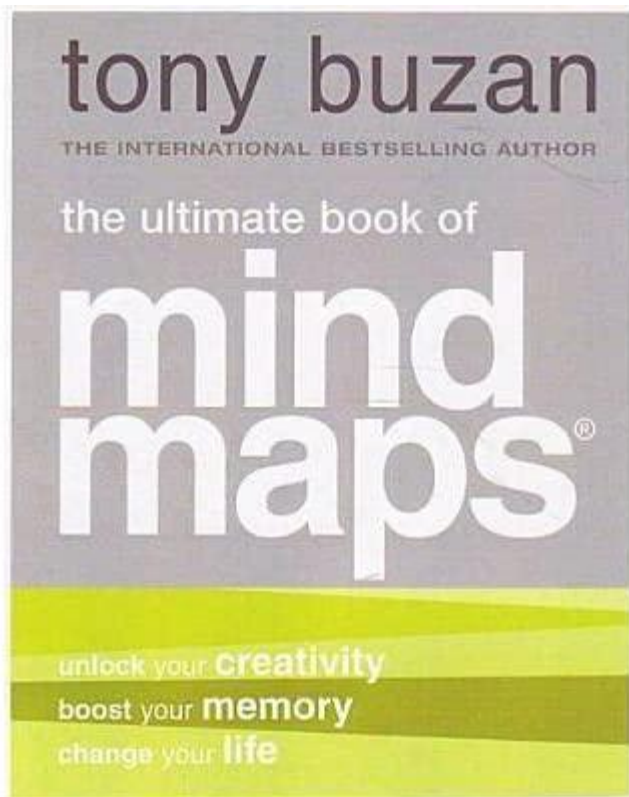
THINK USER-CENTRIC
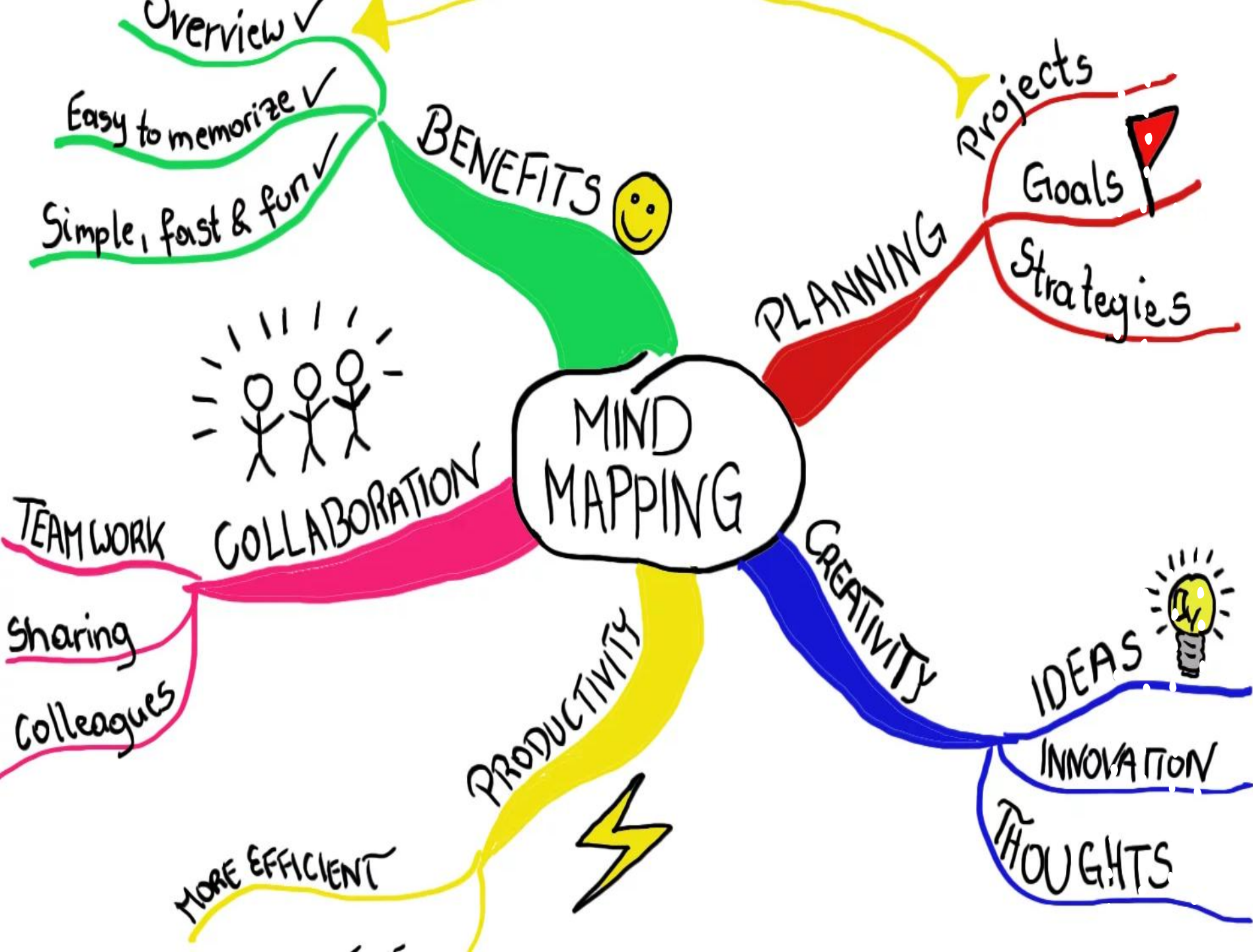
GO FOR QUANTITY

GO FOR WILD IDEAS

Mindmapping

A mind map is a diagram that displays information visually. The subject of a mind map is always located in the center of the map. From there, related ideas and keywords branch out in all directions, resulting in a radiant structure.

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MIND MAPPING

BENEFITS 😊
- Overview ✓
- Easy to memorize ✓
- Simple, fast & fun ✓

PLANNING
- Projects
- Goals
- Strategies

CREATIVITY
- IDEAS
- INNOVATION
- THOUGHTS

PRODUCTIVITY
- MORE EFFICIENT

COLLABORATION
- TEAMWORK
- Sharing
- Colleagues

What can mind maps be used for ?

- To help organize information
- Taking notes in a meeting
- Planning an essay or report
- Generating ideas and thinking creatively
- Learning and studying

Why use mind maps?

Mind mapping links the left side of your brain that focuses on numbers, words, lists and logic, to the right, creative side.

© Paul Foreman http://www.mindmapinspiration.com
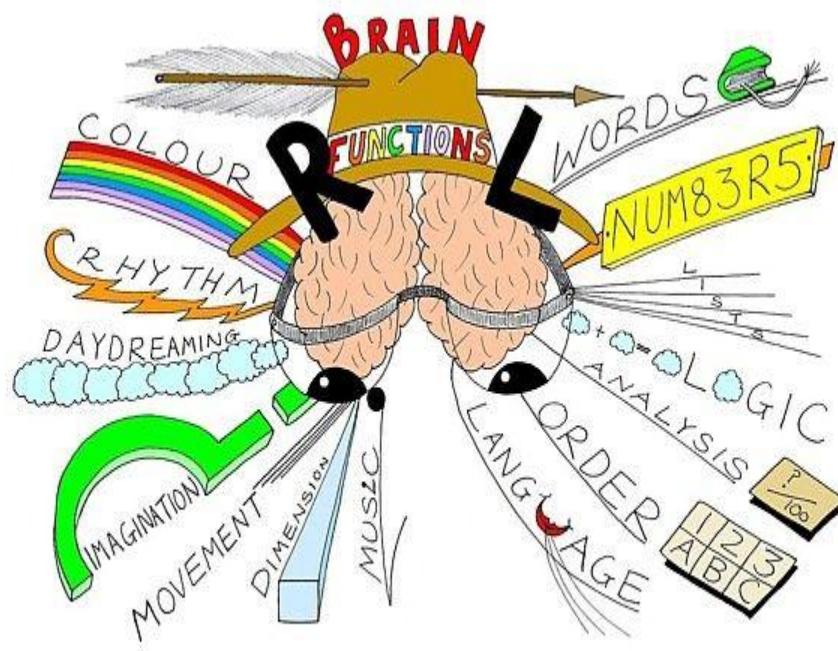
- Brain functions by connecting and associating between the left and right sides.
- Therefore, using images, key words, and color in mind maps, we are maximizing our 'brain power', which enhances learning and creativity

Advantages of mindmapping

- A mind map's radiant structure directly corresponds to the way our brains store and retrieve information.

- A mind map conveys the hierarchy and relationships between individual ideas and enables you to see the big picture.

- A mind map makes use of mental triggers (such as pictures, colors, and connections) to help your brain memorize things more easily.
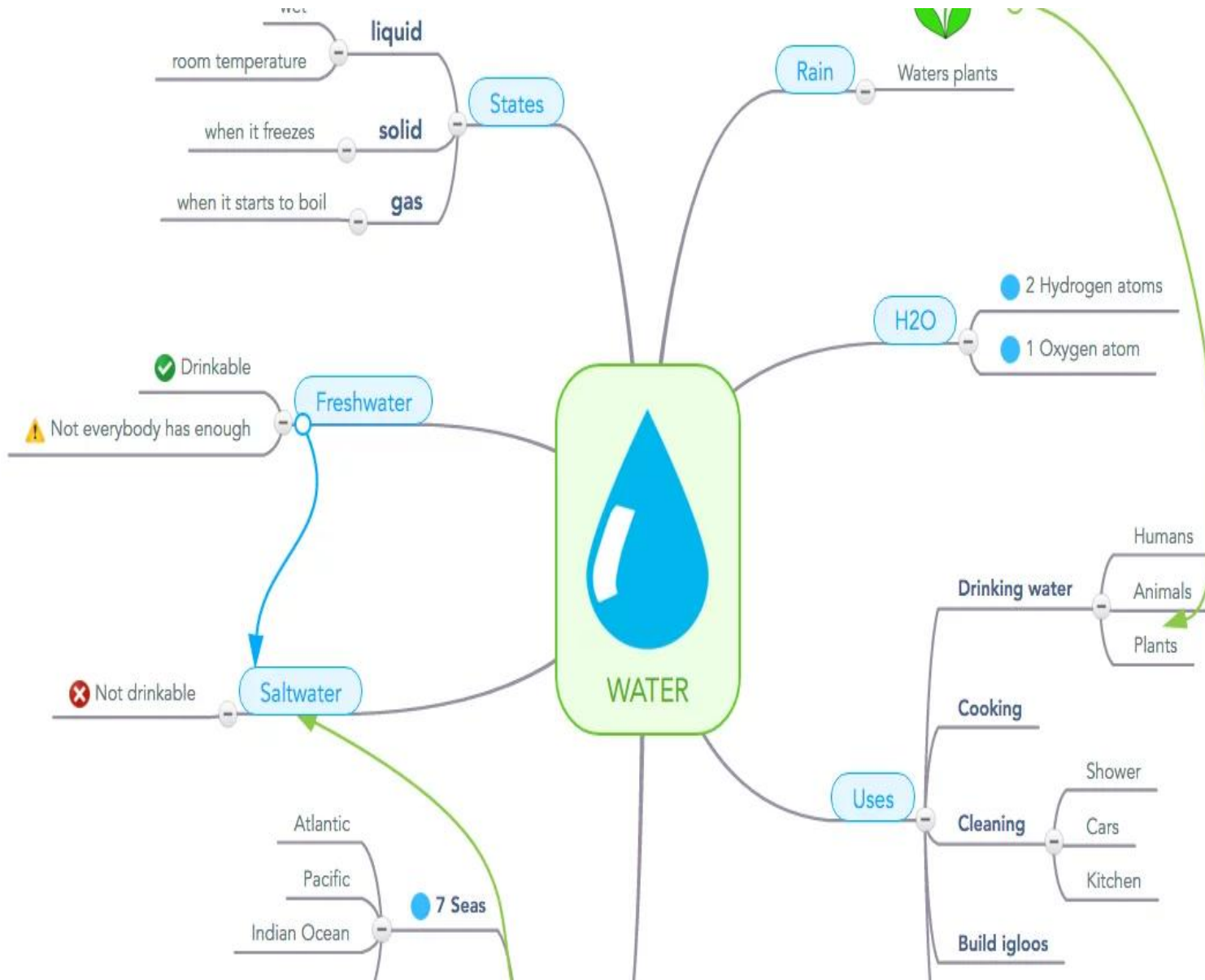
Mindmapping tools

- Mindmeister - https://www.mindmeister.com/
- Kialo – https://www.kialo.com
- Miro – https://www.miro.com
- Bubble - https://bubbl.us/

Brainstorm mapping

Using mind maps for brainstorming:

- helps you easily retrieve information from your memory
- gets your thoughts flowing freely so you can come up with new ideas
- lets you identify connections between individual ideas
- helps you see the bigger picture

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👍 Team work
- Who will take on which role in your team?
- How will you share tasks fairly?

🧑‍🤝‍🧑 Audience
- A product for children?
- A product for young people?
- A product for adults?

📊 Current market
- What's already available which is similar?
- What already does well?
- How could this product be better?

💝 Unique Selling Point
- What's distinctive about this product?
- Could you make this a social enterprise?

💡 The Big Idea

🏫 Costs
- What are the materials and labour costs involved?
- What would the profit margin be?
- Would you give a section of this to charity?

📣 Marketing
- Would marketing depend on the audience?
- Could you promote via social media?
- Set up a stall at a local market / fair?

🍴 Logistics
- How would the product be produced?
- Could you make it by hand?

Business ideas mind map

Rules of mind mapping

1. Turn paper to alandscape position

2. Draw a picture in the middle that represents the main idea.

3. Draw some thick lines coming from the middle picture, this is for each of the main ideas.

4. Draw pictures where possible.

5. From each of the thicker lines, draw thinner connected lines spreading out like the branches of a tree. These are for extra ideas.

All writing should be KEY words only

Sticky note mind mapping

Online sticky note sites

- https://www.mindmup.com/news/2019/11/25/sticky-notes.html
- https://www.mural.co/
- https://www.lucidchart.com/pages/templates/mind-map/lucidchart-sticky-note-mind-map

What? Hypothesis

A hypothesis is a tentative answer to a research problem that is advanced so that it can be tested.

Issue Diagram is an effective method for breaking down problems and formulating hypotheses
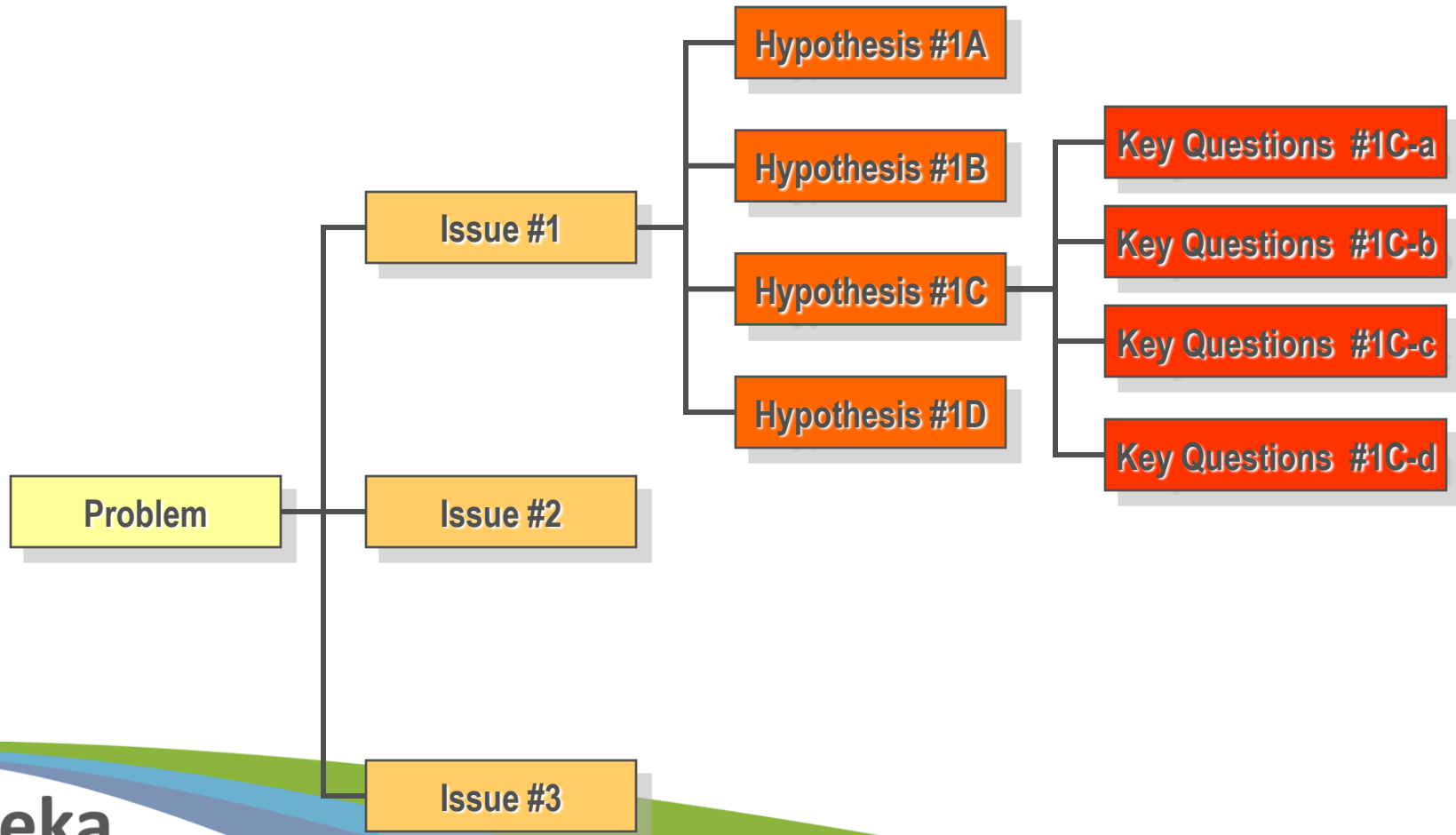
Task

- On the basis of the chart come up with problem statement
- Issue(s) (pain) formulations
- 1-3 hypotheses
- Key questions