



Creative thinking











2023 – FACULTY OF INFORMATION TECHNOLOGY







Why Creative Thinking?

Top 10 skills of 2023



- | | |
|--|--|
| 1.  Analytical thinking | 6.  Technological literacy |
| 2.  Creative thinking | 7.  Dependability and attention to detail |
| 3.  Resilience, flexibility and agility | 8.  Empathy and active listening |
| 4.  Motivation and self-awareness | 9.  Leadership and social influence |
| 5.  Curiosity and lifelong learning | 10.  Quality control |

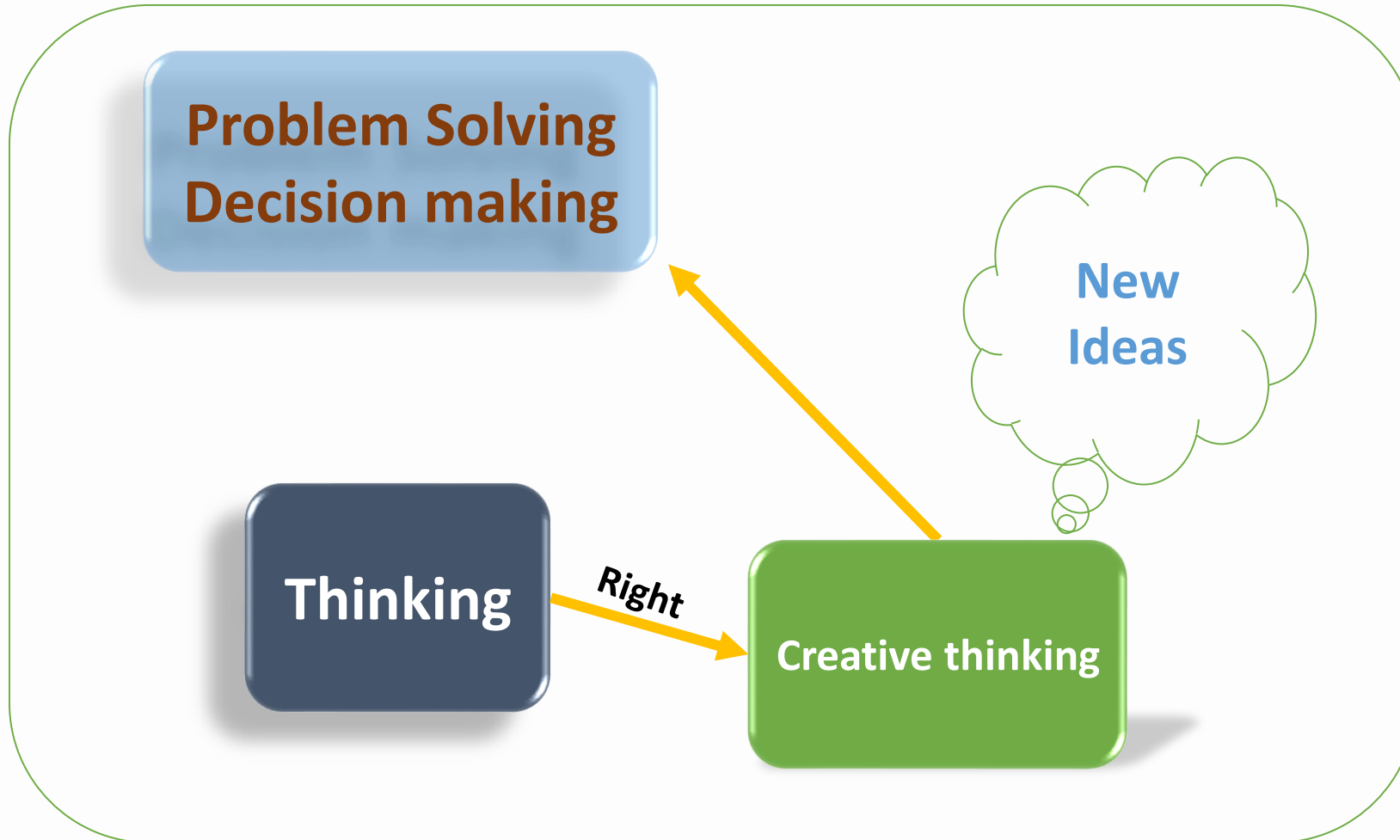
Type of skill

 Cognitive skills  Self-efficacy  Management skills  Technology skills  Working with others

Source
World Economic Forum, Future of Jobs Report 2023.

Note
The skills judged to be of greatest importance to workers at the time of the survey

What is creative thinking?



What is creative thinking?

Thinking about problems in a **new way**

(<https://dictionary.cambridge.org>)

The **mental processes** leading to a **new invention, solution, or synthesis** in any area. A creative solution may use **preexisting** elements (e.g., objects, ideas) but creates a **new relationship** between them.

(<https://dictionary.apa.org/creative-thinking>)

Examples



Examples

Give an example of creativity from your daily life.

Examples

- Creating branding materials, such as logos, webpage layouts, and posters
- Developing lesson plans for a group training program
- Designing a quiz or test
- Brainstorming ideas for home décor and renovation projects
- Enhancing the quality of a product or service

How to be creative



(<https://www.litmos.com/blog>)

- Thinking **out of the box**
- Ask the same question **many times** and give a **different answer** each time.
- **Combine** some of the features of two different objects or ideas
- Ask questions such as '**what if....?**' Or '**supposing....?**'

1. Does critical thinking **hinder** creativity?
 2. People with critical thinking will find it **difficult** to think creatively?
- Discuss by group
 - Duration: 15 minutes

Assignment 2

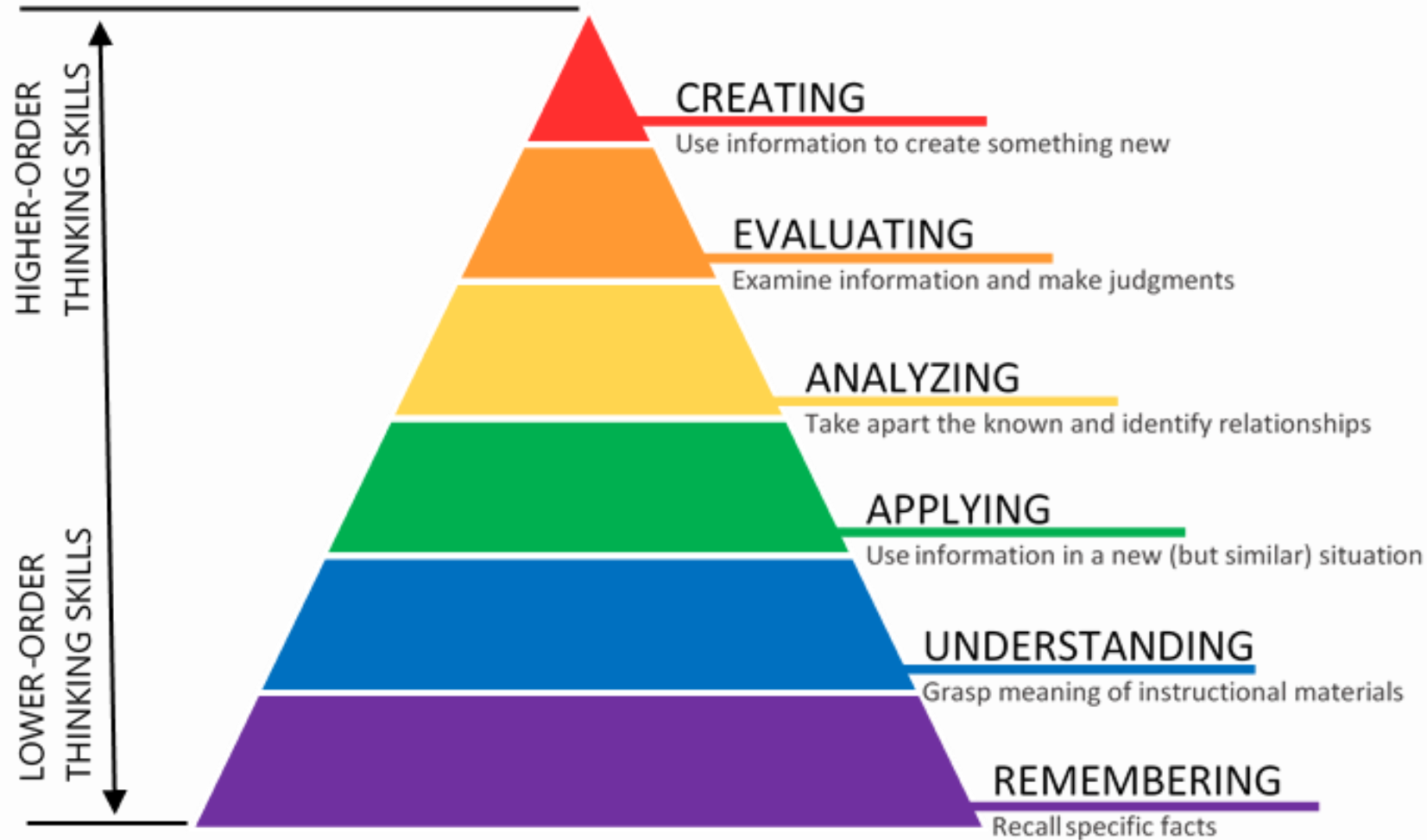
If you were a **dessert,
what dessert would you be?**



Thinking methods



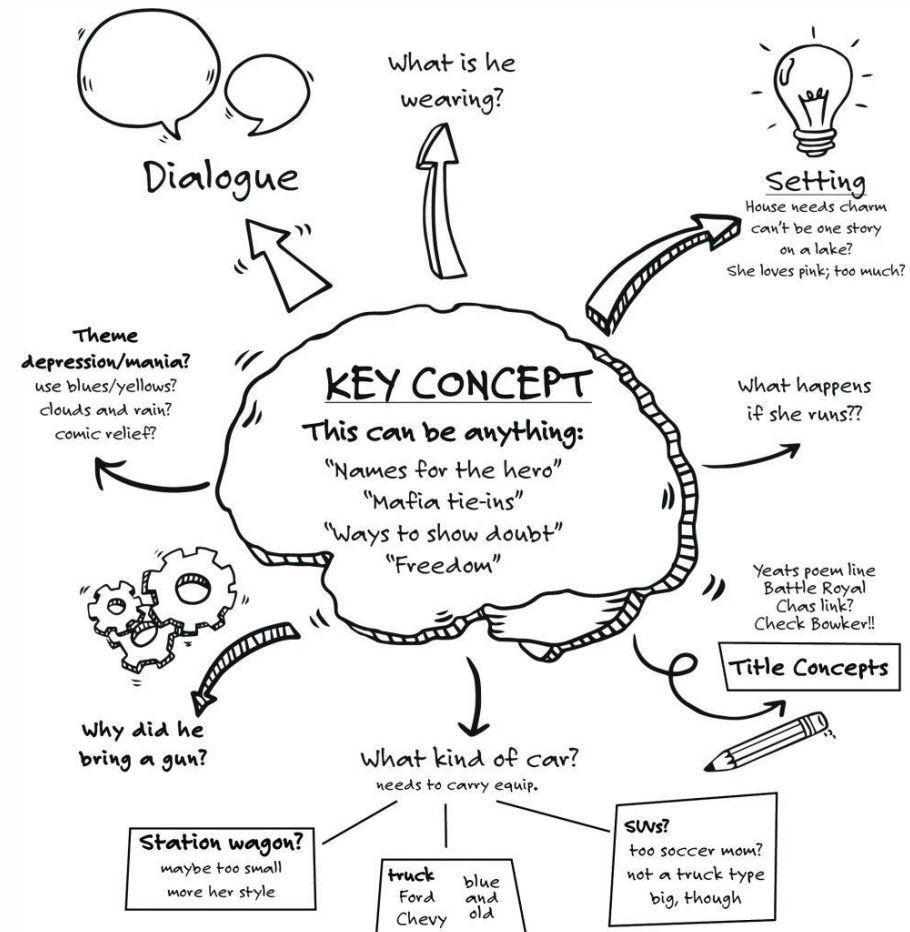
BLOOM'S TAXONOMY – COGNITIVE DOMAIN (2001)



<https://citt.ufl.edu/resources/the-learning-process/designing-the-learning-experience/blooms-taxonomy/>

Brainstorming

- Introduced by Alex Faickney Osborn in 1953 through his book *Applied Imagination*
- A group problem-solving technique that involves the spontaneous contribution of ideas from all members of the group.

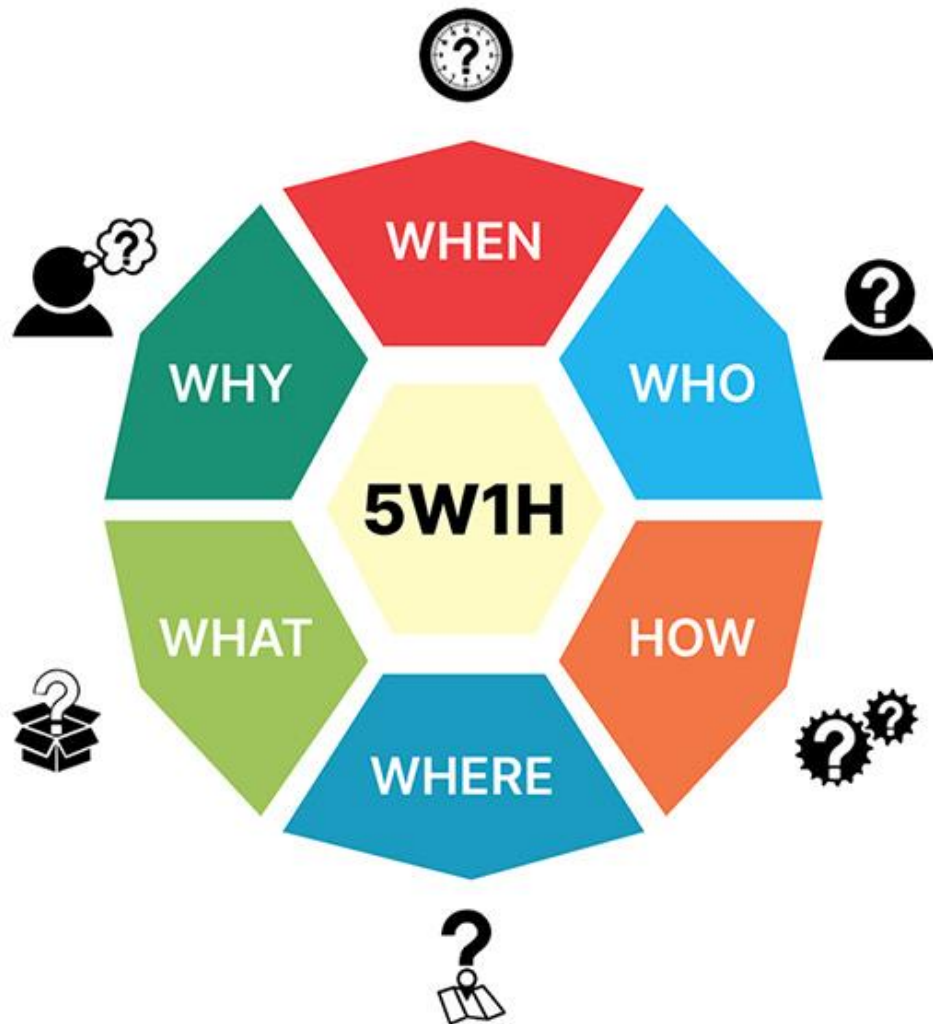


Brainstorming

- Should be used for generating **lots** of new ideas and solutions;
- **Reduce** social **inhibitions** among group members;
- **Stimulate** idea generation;
- **Increase** overall creativity of the group.

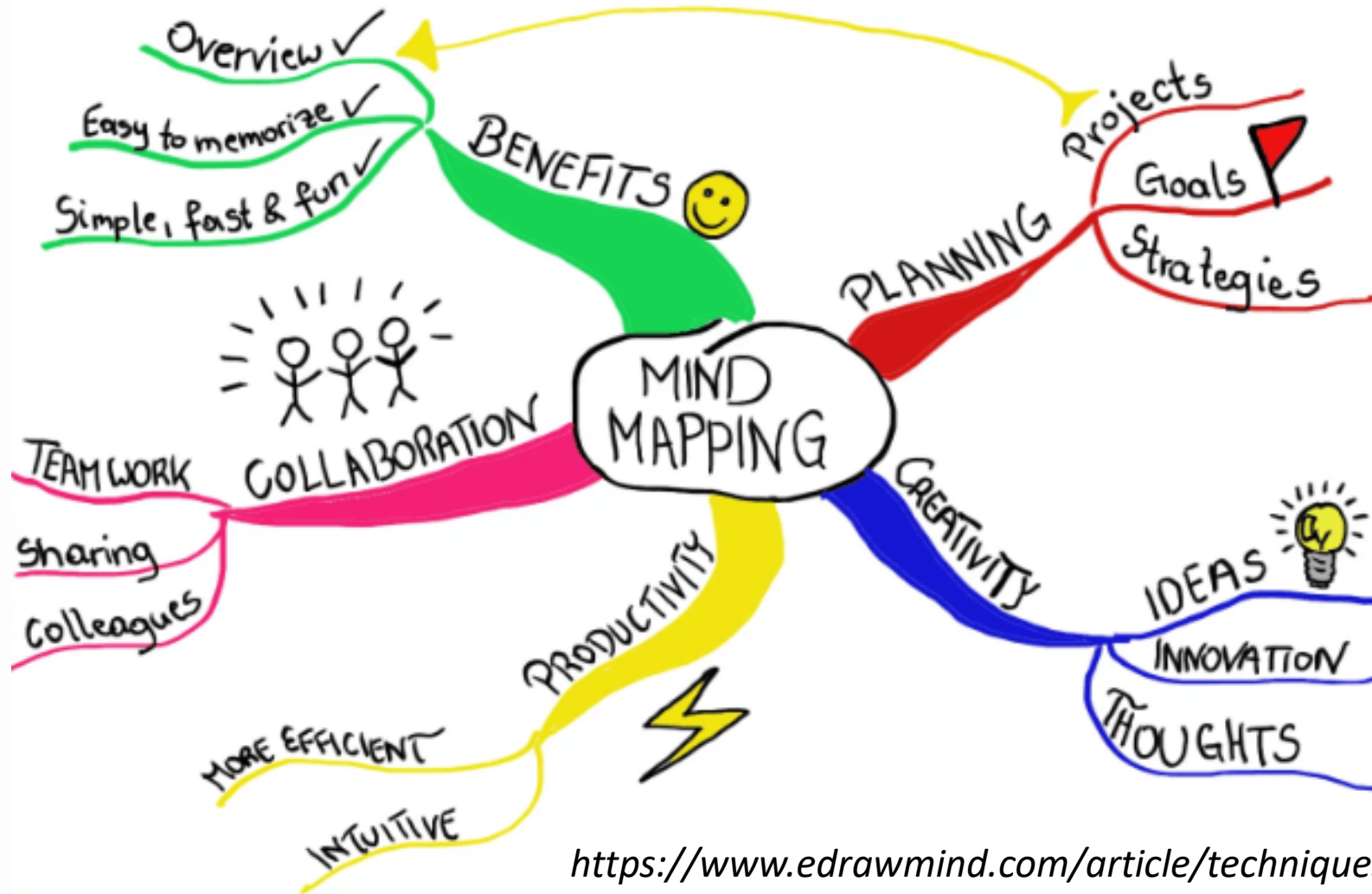


Questioning method



WHAT	describe the situation, the specific problem
WHO	specific people or group relevant to the issue or the situation
WHERE	location or position of the recognized issue
WHEN	state the timeline, deadline, duration, or any other details
WHY	It explains in detail the reason and objectives behind the need for action
HOW	specifies the steps on how the identified plan/s should be carried out. It should also include all the resources, tools, methods, means

Mindmap



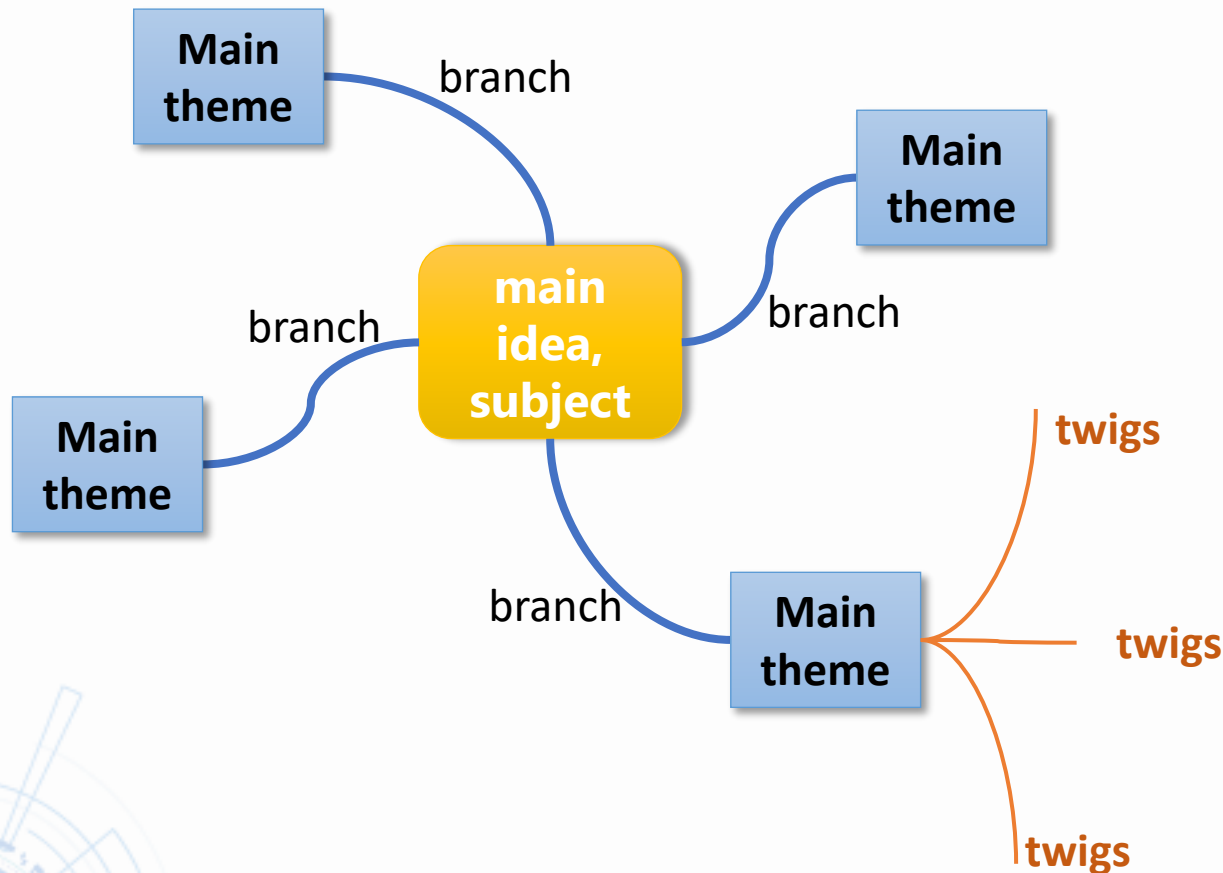
<https://www.edrawmind.com/article/techniques-for-mind-map.html>

Mindmap

A Mindmap is a **diagram** for representing tasks, words, concepts, or items linked to and arranged around a **central concept**.

<https://www.mindmapping.com/>

Mindmap



- Tony Buzan (1974)
- Start in the **centre** of the page
- The **lines** should be **connected** and radiate out from the **central concept**
- Use different **colors** for different **branches** and **twigs**
- Use **images** and **symbols** ➔ easier to remember

Brainstorming

Taking notes

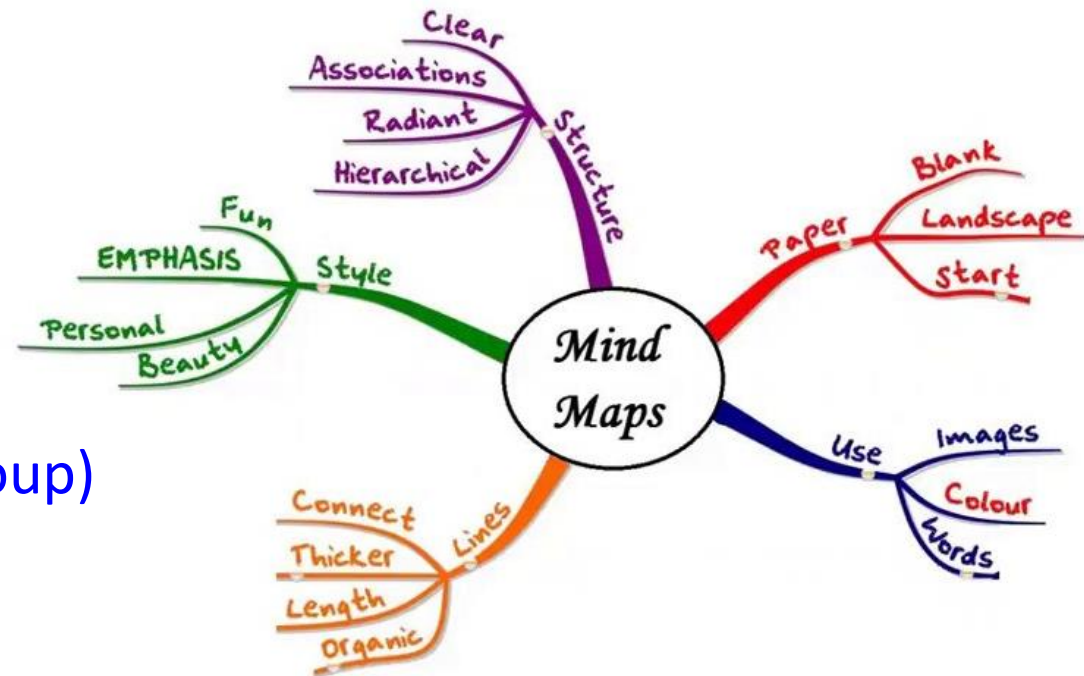
Stimulating creative solutions

Organizing ideas

Reviewing learning

Activity

- Discuss by group
 - 1 group/ topic
 - Duration: 45 minutes
- Present with mindmap (10 mins/ group)



Topics:

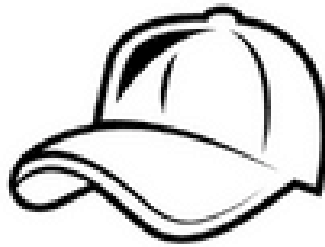
1. Movies are generally more interesting than books.
2. Watching sports events in person is better than watching them on TV.
3. By the end of this century, electric cars will be in common use.
4. Bicycling is a truly enjoyable form of exercise.
5. The internet is being used by teenagers to waste their time in social media.
6. We must bear greater responsibility for the environment than our ancestors did.
7. 24 hours is not enough time to get everything done

Six thinking hats

- Created by Dr. Edward de Bono (1985)



PROCESS



FACTS



CREATIVITY



BENEFITS

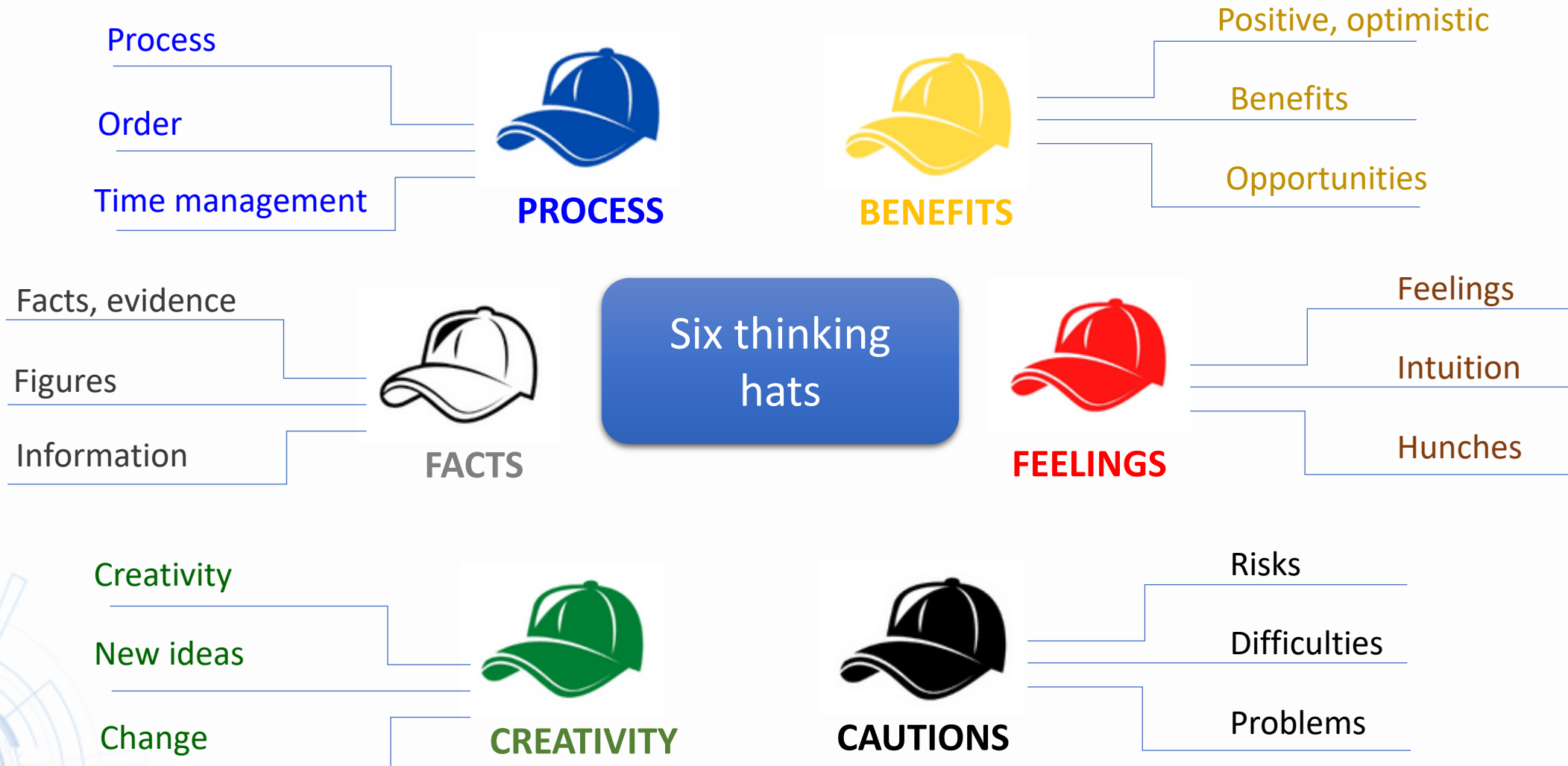


FEELINGS



CAUTIONS

Six thinking hats



Six thinking hats



PROCESS

Description: control thinking and manage the decision-making process; focus on translating the thinking of all the other hats into actionable steps.

Questions:

- What issue do we have?
- What results do we want?
- What do we need to do next?
- Who needs to do what?

Six thinking hats



FACTS

Description: Objective, neutral thinking in terms of facts, numbers and information. With this thinking hat you focus on the data available.

Questions:

- What information do I have?
- What do I know to be true?
- What information do I need to obtain?
- Where can we find this information?

Six thinking hats



CREATIVITY

Description: Creative, seeks alternatives. The green hat is where you can develop creative solutions to a problem.

Questions:

- What haven't I/we thought about?
- Are there any alternatives?
- How can I change/improve this?

Six thinking hats



BENEFITS

Description: Positive, optimistic, clear, effective and constructive. This hat helps you think positively and to see all the benefits of the decision and the value in it.

Questions:

- Why is this a good idea?
- Why is this valuable? To whom is it valuable?
- What are the possible benefits/advantages?
- How can I/we make this work?

Six thinking hats



FEELINGS

Description: emotions, feelings and instincts; do not care about logic.

Questions:

- How does this make me feel?
- What is my heart telling me?
- What feels right/appropriate?
- What is making me feel this way?

Six thinking hats



CAUTIONS

Description: points out all the reasons why something won't work; focus on foreseeing possible dangers, risks, consequences, difficulties, and roadblocks.

Questions:

- Why won't this work?
- What problems could this cause?
- What are the drawbacks/risks?
- Will this create problems or challenges? For who?

- The biggest **enemy** of thinking is **complexity**, for that leads to confusion.
- When thinking is **clear** and **simple**, it becomes more enjoyable and more effective.
- **In the end** there should be a **clear map** of possible problems, obstacles, difficulties and dangers.

Assignment 3

- By group
- Using **The six thinking hats technique**

→ Upload file to Moodle

→ Present in next week using ppt

For any kind of cheating and plagiarism → **students will be graded 0 for the course**

Topic:

1. Having difficulty concentrating in class. (Group ID: 1, 5)
2. **How to graduate on time.** (Group ID: 2, 4)
3. **Choosing a Major. How?** (Group ID: 3, 6)

Thank you!
ΤΡΑΝΚ ΛΟΝΙ