

Different Thinking Strategies

Trial-and-Error

In the trial-and-error approach to problem-solving, you try several solutions until you find one that works.

Where will you use this approach?

When would you use this approach?	When will you not use this approach?
Risk is small.	Risk too great.
Alternatives just randomly selected.	Needs systematic alternatives.
Solution reasonably obvious.	Solution complex.
Consequences small.	Consequences great.

Intuition

Intuition can be described as sixth-sense, feeling, hunch, instinct, insight or thinking, that is instinctive, involuntary, spontaneous, unreflecting and untaught.

Where will you use this approach?

When would you use this approach?	When will you not use this approach?
Together with other strategies.	Not on its own – critical thinking should be used to verify facts.
Risk small.	Risk great.
Solution emotional.	Solution rational.

Creative Thinking

To be creative means to be imaginative, inspired, inventive, original, productive, stimulating and visionary. Creative thinking involves the generation of many new and novel ideas or perspectives.

This includes associative and imaginative thinking.

Associative thinking is the identification of similarities and the relation between facts or ideas. It is the ability to establish new relationships and concepts and find new solutions to problems.

Imaginative thinking is the ability to visualise an image from reality, non-reality or the ideal.

Where will you use this approach?

When would you use this approach?	When will you not use this approach?
To inject some fun.	Straightforward solution.
Associations are needed.	
Solution needs to be innovative.	
Difficult problems.	

Techniques to Encourage Creativity

- Use vertical and lateral thinking.
- Adopt a questioning approach.
- Realise that good ideas can come from anywhere.
- Focus on what is required: the needs of the task, team and individual.
- Expect pressure and maintain momentum.
- Remove constraints and continue driving innovation.
- Ensure that innovations are realistic.
- Plan the implementation of new ideas.

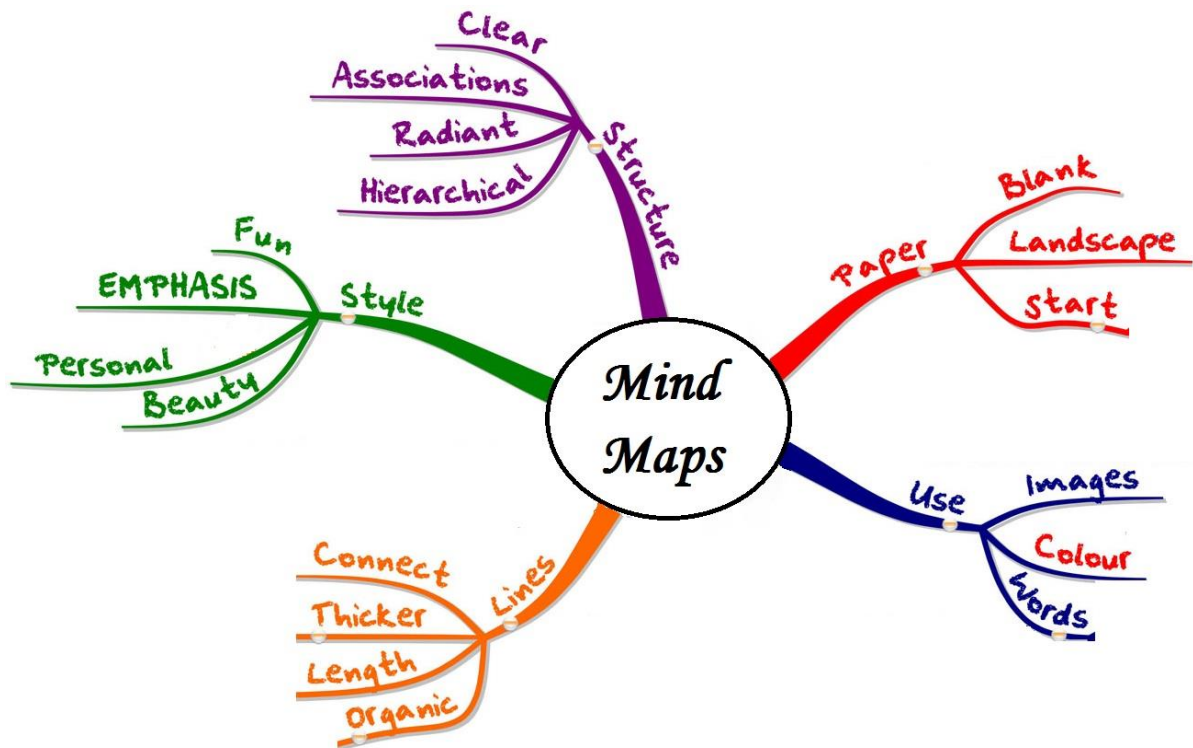
Factors Preventing Creativity

- Failure to define the problem.
- Failure to understand the problem and find the solution.
- Subjective irrational analysis.
- Lack of sensitivity.
- Lack of focus and direction.
- Lack of innovation.
- A focus on peripheral issues rather than the substantive.
- Overconfidence.
- Being too risk averse.

Mind Mapping

It is a technique for organising information and presenting it visually in the form of a “spider web”. A mind map is drawn as follows:

- Write the topic in the centre.
- Write keywords on the line.
- Use colours, symbols, signs, images or pictures.



Where will you use this approach?

When would you use this approach?	When will you not use this approach?
Generate new ideas.	Simple problem (concept).
Promote memorisation through visual images.	
Plan an assignment or project.	
Make notes and summaries.	
Difficult problem.	
Multiple concepts on the same topic.	

Visualisation

It is a powerful mental ability through which you can picture and imagine things in your mind.

Where will you use this approach?

When would you use this approach?	When will you not use this approach?
When you are relaxed.	Problems that cannot really be visualised.
When you can visualise a problem.	
See the perfect state with the mind's eye.	

Visualisation is a powerful skill for problem solving. The RADAR technique provides a step-by-step procedure for visualising:

R Relax by closing your eyes and breathe deeply.

A Look at a **blank** screen.

D Now begin to **direct** the picture.

A You are **central** to the picture.

R Reward yourself.

Brainstorming

It is an effective creative skill that generates many ideas.

The procedure for brainstorming is as follows:

- Think of as many ideas as you can in a short period of time.
- Say whatever comes into your head – even wild, seemingly impractical ideas.
- Do not stop to ask if it will work or how practical it is.
- Write absolutely every idea down.
- Where will you use this approach?

When would you use this approach?	When will you not use this approach?
When you need some ideas to solve a complex problem.	Solution is obvious.
A creative solution is needed.	There is only one correct answer.

High risks involved.	
You need the buy-in from every-one.	
More than one possibility.	
Unusual problems.	