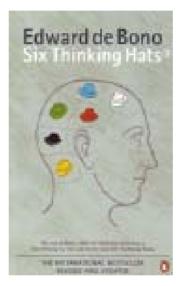
Edward de Bono's SIX THINKING HATS







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KS Mathew Professor, Department of CSE





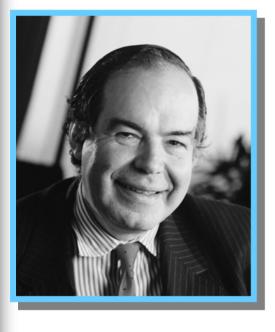




Agenda

- Dr. Edward de Bono
- Traditional Thinking
- What is Parallel Thinking?
- Traditional Thinking vs. Parallel Thinking
- What is Lateral Thinking?
- Introduction to Six Thinking Hats method
- How to apply Six Thinking Hats method
- Benefits of Six Thinking Hats method
- Six Thinking Hats method Case Studies
- Six Thinking Hats method A Mock Session
- Questions & Answers

Dr. Edward de Bono

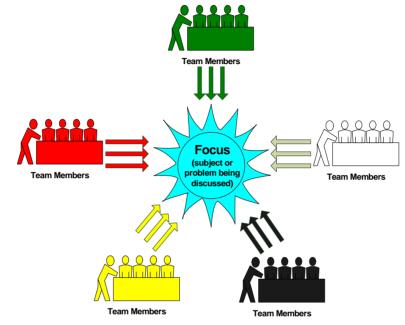


- Born in Malta in 1933
- M.D., Ph.D., (medicine & psychology)
- Faculty at the universities of Oxford, London, Cambridge and Harvard
- World-renowned consultant to business, governments, schools and industry
- Author of 62 books in 47 languages
- Originator of the following:
 - Direct teaching of thinking as a skill (CoRT -Cognitive Research Trust - Thinking Programme)
 - Lateral Thinking (1967)
 - Parallel Thinking (1985)
 - Six Thinking Hats (1985)

Traditional Thinking

- Traditional thinking is 2400 years old, based on the philosophies of Socrates, Plato and Aristotle
 - Socrates used to point out 'what was wrong' to clarify the concepts
 - Plato believed that we can see only shadows of truth as we go through life
 - Aristotle believed that people would put together different 'boxes' in their mind based on their experience & judge things into one of those boxes
 - So, traditional thinking is concerned with "what is" which is determined by analysis, judgment & argument. It is not constructive or creative and doesn't involve design.
- It is also called 'argument', 'adversarial', or 'western' thinking
- Partial exploration of subject / problem
- Involves analysis, judgment and argument
- There is no focus and thinks about too many aspects / things at a time
- Traditional thinking is not collaborative or cooperative

What is Parallel Thinking?



- All members look in the same direction at any moment
- Direction changes one after other
- All views are put down in parallel

Traditional vs Parallel Thinking

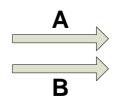
Traditional Thinking

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 / things at a time

Parallel Thinking

- First published by Edward de Bono in 1985
- Full exploration of subject / problem
- Concerned with 'what can be'
- Involves constructive thinking, creative thinking and 'designing a way forward'.
- Deals with only one aspect / thing at a time





What is Lateral Thinking?

Lateral Thinking means thinking differently or thinking out of the box.

See the popular lateral thinking puzzles below:

Puzzle 1: Three switches outside a windowless room are connected to three light bulbs inside the room. How can you determine which switch is connected to which bulb if you may enter the room only once?

Answer: Switch one light on for a minute; turn it off and turn another on. Go into the room and feel the off bulbs. The warm bulb is connected to the first switch, the on-bulb is connected to the second and the cold bulb is connected to the third switch.

Puzzle 2: A man is replacing a wheel on his car, when he accidentally drops the four nuts used to hold the wheel on the car, and they fall into a deep drain, irretrievably lost. A passing girl offers him a solution which enables him to drive home. What is it?

Answer: Use one nut from each of the other three wheels.

Puzzle 3: A truck is stuck at a road under a bridge. It's just a couple of inches too high to pass under. Any other route, avoiding the bridge would add a couple of hours to the journey. A young boy comes along and again saves the day. How?
 Answer: Let air out of the tires till the truck is low enough.

What is Lateral Thinking? (contd..)

Puzzle 4: A man lives on the tenth floor of a building. Every day he takes the elevator to go down to the ground floor to go to work. When he returns he takes the elevator to the 7th floor and walks up the stairs to reach his apartment on the 10th floor. He hates walking so why does he do it? Clue: on rainy days he goes up in the elevator to the tenth floor.

Answer: The man is dwarf and can only reach the button for the 7th floor. On rainy days he uses his umbrella!

Puzzle 5: A landlord is threatening to evict a father and his beautiful young daughter, unless she agrees to marry him. In a false gesture of sincerity, he offers her an opportunity for her and her father to remain in the house, without marrying him. He has a silk bag in which he says he has placed a white and a black stone from the footpath on which they're standing. If she picks the white stone from the bag, without looking, she wins; if she picks the black, she loses. However, the young girl saw him place two black stones in the bag. She can't expose him in front of the witnesses without angering him and making things worse. How does the clever girl win?

Answer: She withdraws a stone and instantly drops it into those on the ground and is lost. To know what color it was, they must look at the stones remaining in the bag.

Introduction to Six Thinking Hats

- A method for effective team meetings, problem solving, decision making and proposal/design evaluation
- A method based on the concept of parallel thinking
- Can be used in businesses, schools and families for resolving issues and making decisions
- Major organizations using Six Thinking Hats are: NASA, IBM, ABB, Siemens, Microsoft, British Airways, BP, Statoil, NTT, Federal Express, Polaroid, Pepsico, DuPont, Prudential Insurance etc.

Introduction to Six Thinking Hats

- Can be used by businessmen, professionals, teachers, students, children or individuals.
- There are six different color *imaginary* hats that you can put on or take off.
- Hats help a group to use parallel thinking
- Color of hat identifies the type or direction of thinking
- The main idea is to have the group "wear only one hat at a time"

Six Thinking Hats

Hat	Color Represents	Function of Hat
	Neutral, Objective	Objective Facts & Figures
	Emotional, Angry	Emotions & Feelings
	Serious, Sombre	Cautious & Careful
	Sunny, Positive	Optimistic, Hope & Positive Thinking
	Growth, Fertility	Creativity, Ideas & Lateral Thinking
	Cool, Sky Above	Control & Organization of Thinking



White Hat Thinking

- Neutral, objective information
- Facts & figures
- Two tiers of facts Believed Facts & Checked Facts
- Excludes ones own opinions, hunches, judgments
- Removes feelings & impressions
 - Report of opinion of someone else
 - Questions to be asked & answered under White hat:
 - What information / facts do we know?
- What information is missing?
 - What information / facts would we like to have?
 - How are we going to get the information?
 - What is relevant?
 - What is most important?
 - How valid is this?

Red Hat Thinking

- Emotions & feelings influence thinking & red hat acknowledges this fact
- Emotions come in three ways:
 - Background emotions such as fear, anger, hatred, love etc.
 - Initial perceptions (eg. having insulted by someone etc.)
 - Emotions after a map of situations has been put together
- Hunches, intuitions, impressions
- Doesn't have to be logical or consistent
- No justifications, reasons or basis
 - Questions to be asked & answered under Red hat:
- How do I feel about this right now?
 - How cold or warm do I feel about this?
 - How am I reacting to this?

Black Hat Thinking

- Cautious and careful
- Logical negative why it won't work?
- Critical judgment, pessimistic view
- Separates logical negative from emotional
- Focus on errors, evidence, conclusions
- Worst-case scenarios

Questions to be asked & answered under Black hat:

- Is this true?
- Will it work? Why it won't work?
- What are the weaknesses?
- What is wrong with it?



Yellow Hat Thinking

- Positive & speculative
- Positive thinking, optimism, opportunity
- Benefits

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- **Best-case scenarios**
 - Questions to be asked & answered under Yellow hat:
- What are the good points?
- What are the benefits?
- Why will this idea work?
- Why is this worth doing?
- How will it help us?
- Why can it be done?



Green Hat Thinking

- New ideas, concepts, perceptions
 - Deliberate creation of new ideas
 - Alternatives and more alternatives
- New approaches to problems
 - Creative & lateral thinking

Questions to be asked & answered under Green hat:

- What are some possible ways to work this out?
- What are some other ways to solve the problem?





- Blue hat is unique as it thinks about thinking
- Control or organization of thinking process
- Thinking sessions usually begin & end with blue hat
- Normally, session leader uses blue hat
- Instructions for thinking
- Controls the sequence or use of other hats
- Brings in discipline and focus

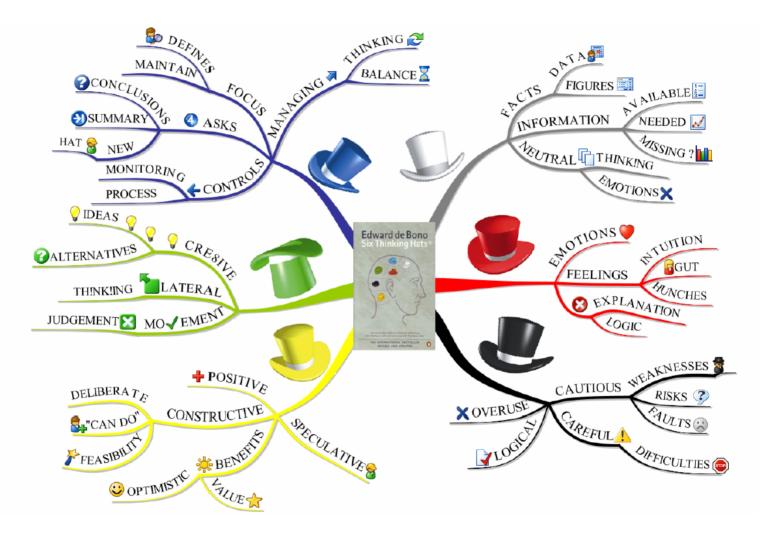
Open with the blue hat...

- Why are we here?
- What are we thinking about?
- Definition of the situation or problem
- The background to the thinking
- Uhat we want to achieve?
- Where we want to end up?
- A plan for the sequence of hats
- Time for each hat session and time allowed for each individual

L...and close with the blue hat

- What have we achieved?
- What decision have we reached?
- What do we do next?
- Summarizes the following:
 - Outcome
 - Conclusion
 - Design
 - Solution
 - Next steps

Hats Summary



Using the Hats

- Use blue hat at the beginning and end
- Blue hat is usually worn by the facilitator
- Use any hat, as often as needed
- Hats can be used singly at any point or as a sequence of two, three, four or more hats
- Sequence can be preset or evolving
- Not necessary to use every hat
- Time under each hat: generally, short
- Requires discipline from each person to stay focused
- Adds an element of play
- Can be used by individuals and groups



Hat Sequence - Evaluation

To discover the positive aspects and negative aspects of an idea:

- Open with the blue hat.
- Use the yellow hat before the black hat.
- Then, follow up with the green hat (new ideas) and red hat (feelings) thinking.
- Close with the blue hat.

Examples:

- Consider positive and negative aspects of having a weekly technical seminar.
- Evaluate different alternative technologies for developing a software system

Hat Sequence - Caution

To look at situations critically:

- Open with the blue hat.
- First consider facts using the white hat.
- Then, use the black hat to discover difficulties.
- Follow up with some red hat (*feelings*) thinking.
- Close with the blue hat.

Example: Consider the consequences of project leader's resignation in the middle of the project.



Hat Sequence - Design

To create new ideas, products or improvements to existing design:

- Open with the blue hat.
- Then, use the green hat to generate new ideas & designs.
- Follow up with some red hat (*feelings*) thinking.
- Close with the blue hat.

Example: Brainstorm to generate new ideas for marketing our products and increase sales.

Hat Sequence - Others

- Comparing fact and opinion Blue+White+Red+Blue
 - *Comparing and synthesising (coming up with new ideas from the known)* - Blue+White+Yellow+Black+Green+Blue
- Choosing between alternatives Blue+White+Yellow +Black+ (Green) + Red+Blue
- *Identifying Solutions* Blue+White+Black+Green+Blue
- Quick Feedback Blue+Yellow+Black+Green+Blue
- Strategic Planning Blue+Yellow+Black+White+Blue+Green+Blue
- Process Improvement Blue+White+White (Other peoples views)+ Yellow+Black+Green+Red+Blue
- Performance Review Blue+Red+White+Yellow+Black+Green+ Red+Blue

Facilitator's Role

- Define the focus of your thinking
- Plan the sequence and timing of the thinking
- Ask for changes in the thinking if needed
- Handle requests from the group for changes in the thinking
- Form periodic or final summaries of the thinking

Participant's Role

- Follow the lead of Six Thinking Hats facilitator
- Stick to the hat (type of thinking) that is in current use
- Try to work within the time limits
- Contribute honestly & fully under each of the hats

Benefits of Six Thinking Hats Method

- Decisions seem to make themselves
- Focused thinking
- Improved exploration
- Improved creativity & innovation
- Foster collaborative thinking
- Provides a common language
- Helps people work against type, preference
- Removal of ego from decisions (reduce confrontation)
- Allows a switch in thinking without threatening ego.
- Saves time

Six Thinking Hats - Case Study I

Scenario:

- The Technopark management is looking at whether they should construct a new building. The amount of available vacant office space is coming down and economy is doing well.
- As part of their decision making process, they decided to use the Six Thinking Hats during the meeting.
- Given below is just an example of what has come out of the meeting:

White Hats:

- Analysis of data on the trend of un-rented office space versus the growth in demand, shows that by the time the building is completed there would be severe shortage of un-rented office space with the increasing demand for office space.
- Current government projections indicate solid and steady economic growth for some time.
 - Builder's estimate shows that the square feet rate would be more than two times the prevailing rate in other buildings.

Six Thinking Hats - Case Study I Contd..

Red Hats:

- Feel that the design of the new building would be very attractive and modern. Hence, the potential tenants may like it, though it may not be cost effective.
- There is a feeling that some of the companies in the old buildings & companies in incubation center might be attracted to the new building because of better facilities.
- Prospects of business expansion & more employment opportunities may seem attractive to the government & management and they look forward to the project.

Black Hats:

- Worry that the government projections may be wrong, and over estimating the strength of the economy.
- Since the cost per square feet would be double the current cost, it may be difficult to rent out and therefore the company must be prepared for this possibility.

Six Thinking Hats - Case Study I Contd..

Yellow Hats:

- If economy holds up and government projections are correct, we may even achieve the 100% occupancy rate of the new building, and the company stands to make a higher profit.
- If companies in old building & incubation center also move to the new building as Red Hats feel, the company may even successfully sell the new building before the next economic downturn and make a substantial capital gain.

Green Hats:

- Old building spaces vacated by the companies moving to the new building could be renovated to look more trendy with some creative alterations to the basic design and some additional facilities. This would again attract companies to these old buildings with more revenues because of renovation / additional facilities.
- Special discounted rates in new building could be offered to the companies in old buildings & incubation center to motivate them to move to the new building.
- Considering the increasing fitness awareness, propose to convert some spaces vacated in the old building into a Health Club, which would bring additional revenue.

Six Thinking Hats - Case Study I Contd..

Blue Hats:

- Needs to keep the meeting focused on the agenda. At the same time, there should be a balance between the company's original objectives in proposing the new building and the possibility of enhancing the plan by considering the new business opportunities that may be identified.
- Must ensure that all members are able to contribute to the discussions meaningfully without letting anyone dominate the meeting.

Six Thinking Hats - A Mock Session

Scenario:

Consider the acquisition of a state government owned R&D organization by the Department of Electronics, Government of India. Assume yourself in the role of a top-level executive of R&D organization involved and give your yellow and black hat thinking (first yellow hat and then black hat) on the acquisition move.



THANK YOU

Please feel free to contact me for further details/clarifications:

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