

Lecture 8 and 9:

Thinking Techniques



Thinking Techniques

- **Brainstorming**
- **6 Hats To Thinking**

Brainstorming

Using Brainstorming Technique for decision Making

- Nowadays, brainstorming is critical for the growth of creative business ideas.
- It is a technique of using ideas from a group of people to give ongoing encouragement to that group to generate more fresh ideas.



Steps



Step #1

Set a time, place, and invite list

- For example, if you want ideas on how to increase learning outcomes at schools, invite teachers and curriculum advisors.



Step #2

ask the participants to get ready before the session

- Participants must do a mind mapping session before the brainstorming session and to read up about the problem



Step #3

Hold the session in a fun, relaxing environment

- Select a new creative space. Unless the space is different, people will bring their stress and worries with them. Book a cool space or simply use some decoration.



Step #4

Start the session by grounding people in the facts.

- This will help getting people on the same page with you



Step #5

Set the rules for the brainstorming session

- Make sure people understand that criticizing is not allowed. Encourage that all voices be heard.



Step #6

Facilitate the brainstorming session

- write the ideas down so they are visible. The visual aid helps people build ideas on top of each other.
- ask people to raise their hands, and call on them one at a time.

After the brainstorming session, the evaluation process can begin

Points to keep in mind while planning the brain storming session

1

Use An Inspiring Space

fill the brainstorming space with interesting & motivational posters and enables the space to be organized in a round table format.

2

Focus On Quantity

brainstorming session aims to generate as many ideas as possible

3

Have The Right People

- staff members who are not too close to the problem
- Someone must represent the client, who is well versed with the client's desires

4

Eradicate Negative Thinking

Eliminate negative responses such as: We tried and failed since this type of comments stops creativity.

5

Keep Time Limit in Mind

if the session is stretched to more than 30 minutes it may not be as effective as it needs to be

6

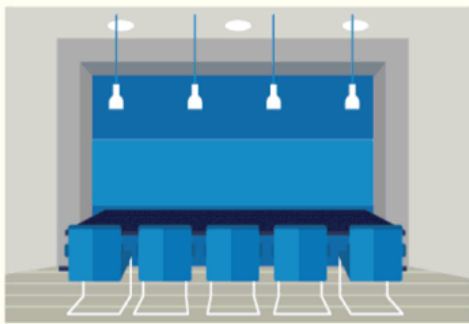
Equal Importance

use someone other than the boss. The one who can help the session going as nothing kills a brainstorming session than an authority figure

BLUE

- Calms
- Promotes a sense of trust, communication, and efficiency
- Helps lower heart rate, blood pressure, and respiration

GOOD FOR



Brainstorming spaces Detail-oriented spaces

YELLOW

- Induces a sense of optimism
- Stimulates and energizes
- Too much can lead to anxiety and increase people's temper

GOOD FOR



Accenting other colors

High-energy, creative spaces

ORANGE

- Symbolizes endurance
- Boosts creative performance
- Generates enthusiasm

GOOD FOR



Accenting other colors

High-energy, creative spaces

RED

- Boosts heart rate
- Increases brain wave activity
- Stimulates appetite

GOOD FOR



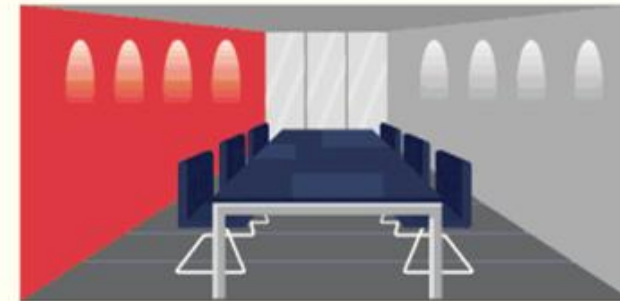
Spaces where people work at night

Spaces with a lot of physical activity

GRAY

- Psychologically neutral
- Generates a lack of confidence

GOOD FOR



Offsetting a brighter color, such as red or yellow

WHITE

- Creates a sense of spaciousness (especially when paired with natural light)
- Promotes creativity

GOOD FOR



Creative spaces

GREEN

- Boosts creativity
- Inspires innovation
- Promotes harmony and balance
- Enhances creative performance
- Reduces anxiety
- Reduces eye strain



Innovative spaces

Spaces where computers are used

Brainstorming spaces



Brain storming Session

- Group brain storming about “**how to help student concentrate in lectures ?**”

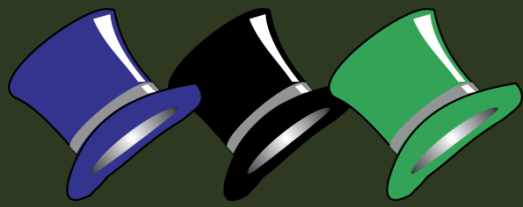
Determine

- **What is the place and the invite list of your session**
- **How would you ask the participants to get ready before the session**
- **How would you make the session a fun and relaxing environment**
- **What would you say at the beginning of the session to ground people in the facts.**
- **What are the rules that you are going to set at the beginning of the brainstorming session**
- **What are the visual aids that you plan to use in writing ideas**

Exercise

- **Do a brain storming session about one of the following topics:**
 - How can we make learning more fun
 - How to stop students from skipping classes
 - How to help student get higher grades

6 Hats To Thinking



6 Hats To Thinking



Edward De Bono is a world-known expert in creative thinking. The 6 Thinking Hats is one of the techniques that he invented.



He believed that people need to embrace the concept of thinking ONE THING at a time

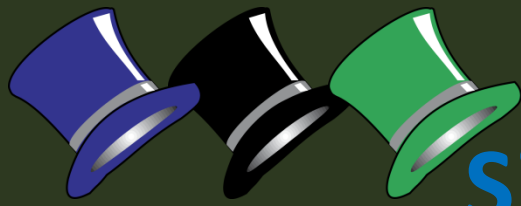


This allows thinkers to separate emotion and other baggage from logic

The main idea:



- ☐ Is to have the group “wear one hat at a time” when considering a problem.
- ☐ The wearing of the hat is metaphorical i.e. everyone will look at the problem at hand from only one perspective, the perspective indicated by the hat colour.



Edward De Bono's Six Thinking Hats



- The colors of the hats are: white, red, black, yellow, green and blue.
- These colors were chosen for a reason. They're associated with certain situations which will help you remember the objective of each separate hat.

Guide lines

- ☐ Use hats to focus the thinking ... one at a time
- ☐ Don't have to use all the hats
- ☐ Can use some hats more than once
- ☐ No debates or arguments ... brainstorm
- ☐ Begin with blue
- ☐ End with blue
- ☐ Keep red brief
- ☐ Keep time (3-4 minutes per hat)

Edward De Bono's Six Thinking Hats



Blue Hat

- Managing of the thinking itself. making decisions and drawing conclusions.
- A cool blue sky allows you to overview over the thinking processes.
- The blue hat holders guides and controls the session.



Edward De Bono's Six Thinking Hats



White Hat

- Focus your thoughts on information, facts and figures.
- Imagine white paper and computer print-outs. Most of the time paper is white.
- the white hat, just like most paper, refers to information and facts.

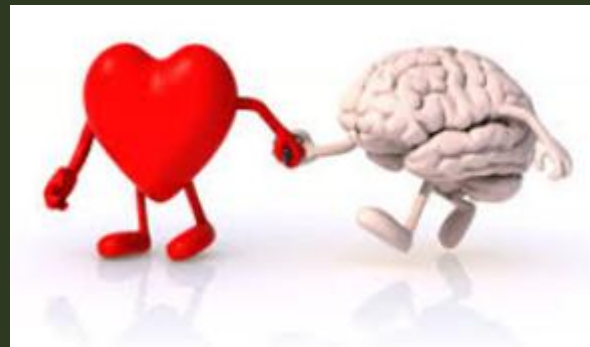


Edward De Bono's Six Thinking Hats



Red Hat

- Unlimited use of feelings, intuition and emotions which don't have to be justified.
- Imagine the red glow of a soaring fire.
- Take no more than 20 to 30 seconds



Edward De Bono's Six Thinking Hats



Black Hat

- Warning! Difficulties, dangers and problems.
- What can go wrong?
 - ☐ What could be the possible problems?
 - ☐ What are points for caution?



Edward De Bono's Six Thinking Hats



Yellow Hat

- Remember a bright and sunny day, how easy it gets to feel optimistic about life.
- Focus the thinking on benefits, values and attainability.
- What are the **positives**? What are the **benefits**?, What are the values? What are the savings?



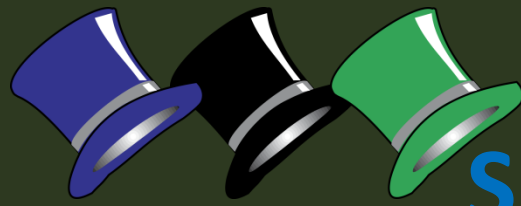
Edward De Bono's Six Thinking Hats



Green Hat

- ✓ Leaves and trees all are vibrant with the creative energy of life.
- ✓ Your green hat represents your conscious creative efforts.
- ✓ It includes generating ideas and looking for alternatives.
- ✓ No logic required this time.
- ✓ Just let your imagination run wild.





Edward De Bono's Six Thinking Hats

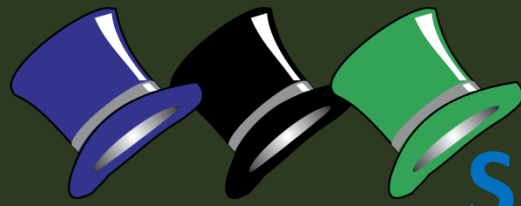


Preparing a Session

First of all you need an idea, a problem to solve, a product to create, a service to promote, etc.....

What are we working towards?

What results do we expect of this thinking session?



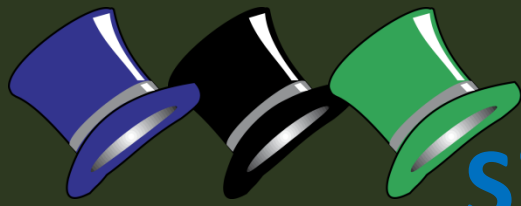
Edward De Bono's Six Thinking Hats



How do I use these Six Thinking Hats then?

- ☐ A particular hat is used in itself to *emphasize* a certain way of thinking or switch to a different style.
- ☐ Before and after using the hat the conversation is a traditional argument or discussion.
- ☐ Determine a sequence for using the hats: your thinking agenda.
- ☐ Then use the different hats in turn.

Example
Short
session



Edward De Bono's Six Thinking Hats



Example: Short Sequences

First ideas:



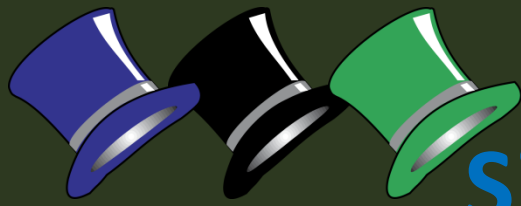
blue - definition of subject



white - ready knowledge



green - generating ideas



Edward De Bono's Six Thinking Hats



Example Short Sequences

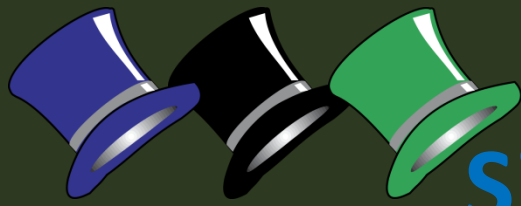
Evaluation:



yellow - benefits and valuable elements



black - dangers and difficulties



Edward De Bono's Six Thinking Hats



Example Short Sequences

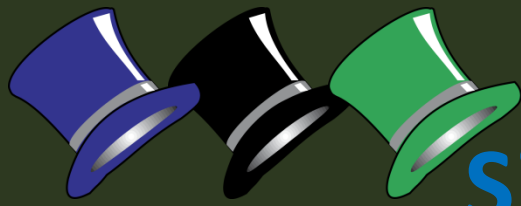
Improvement:



black - inventory of weak points



green - improving those points



Edward De Bono's Six Thinking Hats



Example Short Sequences

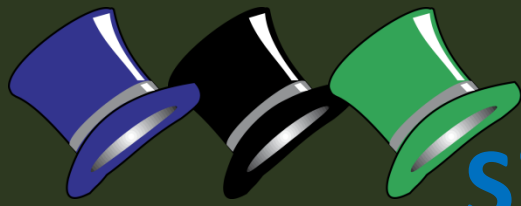
Explanation:



white - factual situation



green - possible causes



Edward De Bono's Six Thinking Hats



Example Short Sequences

Choice:



green - possible alternatives



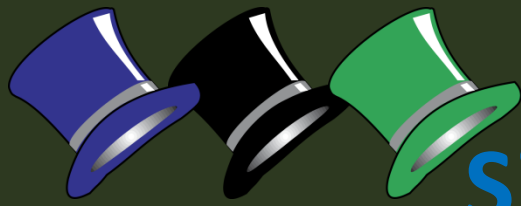
yellow - positives of alternative



black - negatives of alternatives



red - gut feelings



Edward De Bono's Six Thinking Hats



Example Short Sequences

Decision:



green – alternatives



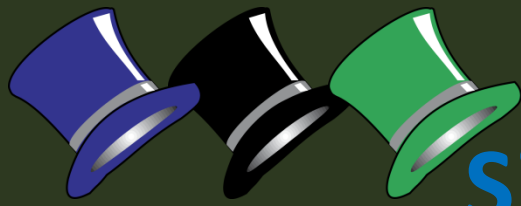
blue - compare alternatives with needs



red - choose alternative

Example

**Long
session**










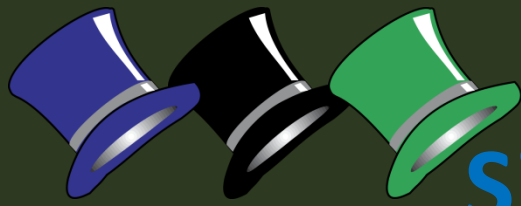
Edward De Bono's Six Thinking Hats



Example Longer Sequences

Problem Solving:

-  blue - definition of problem
-  white - available info
-  green - possible solutions
-  yellow - reality check solutions
-  black - weak points solutions
-  white - connect to info
-  blue - draw conclusion










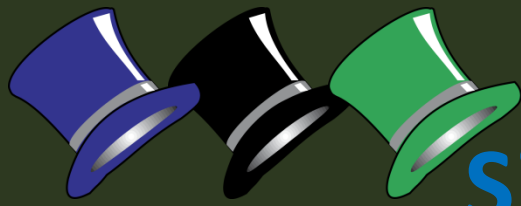
Edward De Bono's Six Thinking Hats



Example Longer Sequences

Creative Effort:

-  blue - purpose of creativity
-  white - topic info
-  green - generating ideas
-  yellow - idea benefits
-  black - idea down sides
-  green - solving down sides
-  red - gut feelings








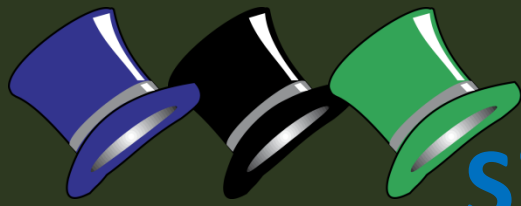
Edward De Bono's Six Thinking Hats



Example Longer Sequences

Investigation:

-  blue - definition of investigation
-  white - available info
-  green - hypothesizing
-  white - investigate more info
-  blue - summarize










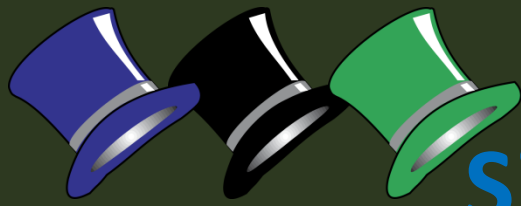
Edward De Bono's Six Thinking Hats



Example Longer Sequences

Decision Making:

-  blue - topic of decision
-  green - offer alternatives
-  white - factual situation
-  yellow - suitability alternatives
-  black - un-suitability alternatives
-  red - making the decision
-  black - assessing decision








Edward De Bono's Six Thinking Hats



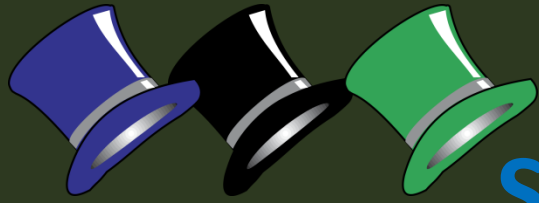
Example Longer Sequences

Communication:

-  blue - necessity
-  white - topic description
-  green - alternative views
-  red - choice of approach
-  black - assessing choice



Exercise *Students Talking When Teacher is Teaching*



Six Thinking Hats

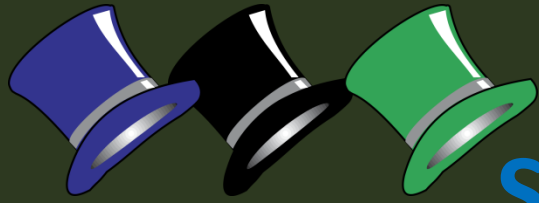


Students Talking When Teacher is Teaching

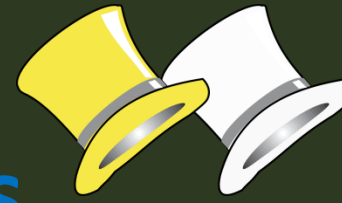


White Hat: state the facts

- students are talking when Teacher is talking
- there is noise so that others are distracted or can't hear
- students don't know what to do after Teacher has given directions
- many students get silly or off task



Six Thinking Hats

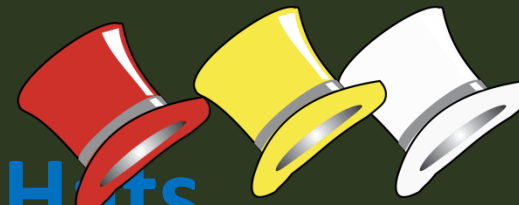


Students Talking When Teacher is Teaching:



Red Hat: states the emotions

- Teacher feels offended
- Students are frustrated because they can't hear directions
- Those talking enjoy joking around and being heard



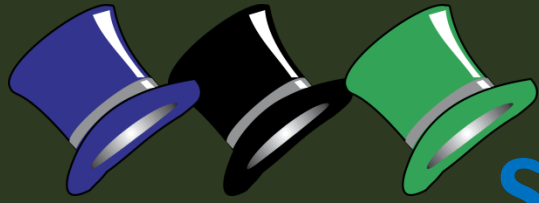
Six Thinking Hats

Students Talking When Teacher is Teaching:



Black Hat: negative aspects

- time is wasted
- learning is compromised
- those who legitimately have the floor feel that listeners don't care about what they are saying
- chaos in the classroom



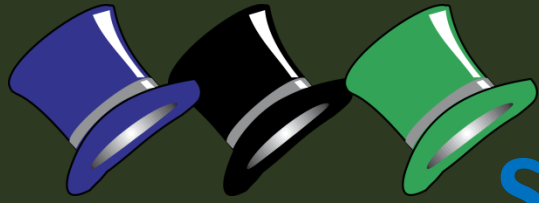
Six Thinking Hats

Students Talking When Teacher is Teaching:



Yellow Hat: positives of the situation are examined

- everyone gets to say what is on their mind
- it can be fun
- you don't have to wait until you speak and therefore don't forget what to say
- not just the "smart" kids get to speak



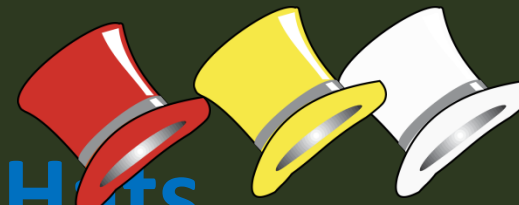
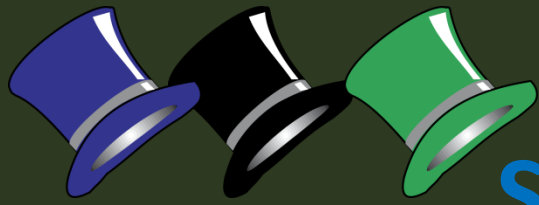
Six Thinking Hats

Students Talking When Teacher is Teaching:



Green Hat: creative ideas that come with seeing the problem in a new light

- Teacher will be more aware of the amount of time that she "talks"
- Teacher will try to include interaction from many different students, not just the "smart" kids

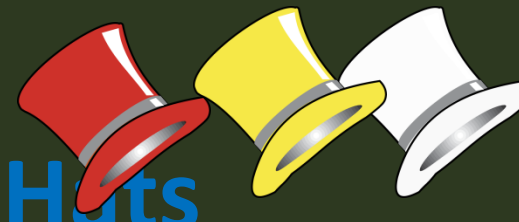


Six Thinking Hats

Students Talking When Teacher is Teaching:



- students will work on resisting the need to say everything that comes into their mind. They will ask themselves if this is "on topic" and if this needs to be shared at this time. There needed to be further discussion on "how" students would work on this problem.

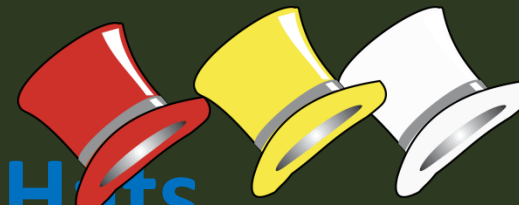


Six Thinking Hats

Students Talking When Teacher is Teaching:



- students will think about whether their comment will interfere with other people's learning
- we will keep these charts up so that we can refer back to the learning of this moment and reassess how we are doing.



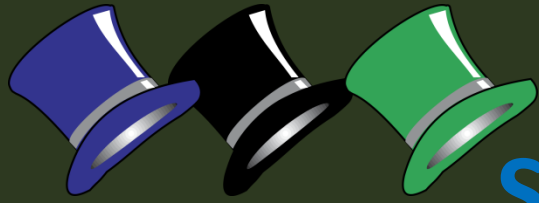
Six Thinking Hats

Students Talking When Teacher is Teaching:



Blue Hat: Sum up what is learned

- Teacher learned that she needs to limit the amount of time she uses "Talking" as a form of teaching
- Teacher needs to involve all students in discussion. She needs to look for the one who rarely offers comments or is quietly waiting to be picked to answer.



Six Thinking Hats

Students Talking When Teacher is Teaching:



- Teacher needs to realize that some students need "think time" before they are ready to contribute to a discussion. Allowing time for these students to think is important part of class discussion so they do not tune out.

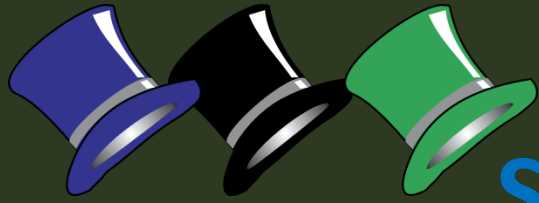


Six Thinking Hats

Students Talking When Teacher is Teaching:



- students now realize that when they talk when others are talking it makes the person talking feel like a fool or unappreciated.
- students realize that just to "get the laugh" of the moment, they are jeopardizing other people's learning



Six Thinking Hats

Students Talking When Teacher is Teaching:



- students learned that speaking whenever you want show a lack of self-discipline and that not everything that goes through our minds is worth sharing.
- teacher/student needs to revisit this topic and check how we are doing

Assignment

- Citizens pay a \$500 fine for not voting in an election.
- You have to be 50 years old to get a drivers license.
- School text books are only available on CD and DVD.
- You can only shop on the internet.
- You can bring your pets to school every Friday.

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