

Creative Problem Solving

“Creative thinking is not a talent, it is a skill that can be learnt.
It empowers people by adding strength to their natural abilities “
Edward de Bono



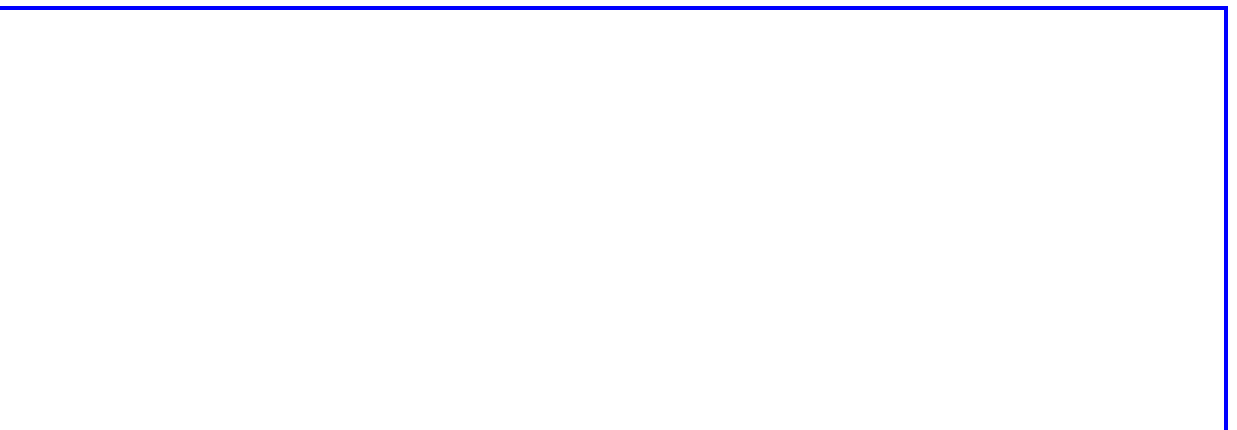
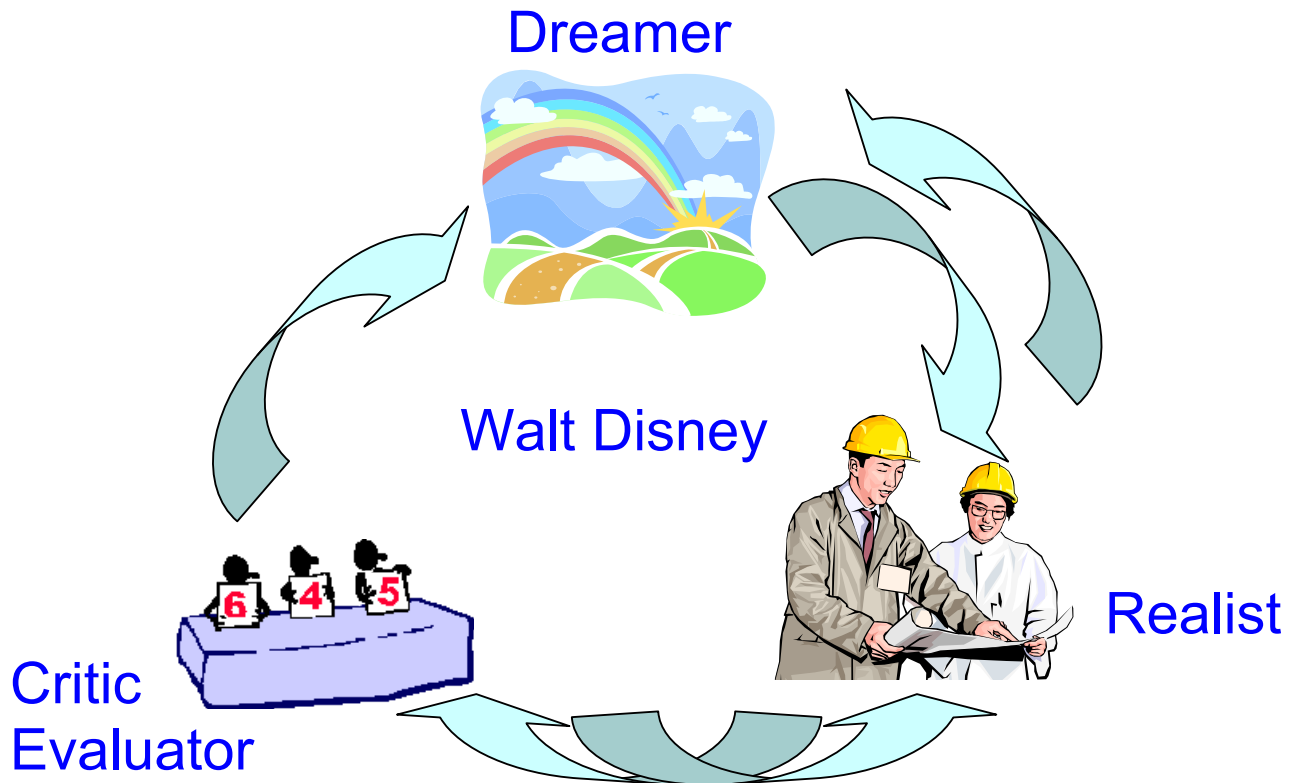
Creativity cycle (Dilts)

Innovate “to introduce something new, to renew, alter, to make changes”

Create “to bring into being or form out of nothing, to bring into being by force of imagination, to design”

Chambers 20th century dictionary

Robert Dilts researched the behaviour of many creative geniuses. One strategy that is accessible to all is the cycle of creativity based on Walt Disney’s personality.



The Dreamer

- “What if.....?”
- Needs to have time away from the critic and realist to generate as many ideas as possible.
- Not concerned with what is practical
- “If I was guaranteed success.....?”
- “If I had unlimited time and other resources.....?”
- “What could I do with £10 million
- What if I changed that colour?
- What if I used that poem?”



The aim of a dreamer is to generate as many ideas as possible and to select those that seem to have the most potential.

The Realist

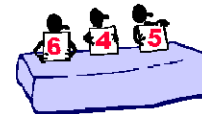
- “How could I make this work.....?”
- Not whether it is feasible or sensible
- 110% sure it can work somehow
- Creates specific and practical implementation ideas
- May need lots of cunning and ingenuity
- “How do I make this better
- “Who or what else could I copy



The realist takes the dreams and makes them practical. They search for missing information and make implementation plans. The aim of the realist is to create a specific and practical proposal.

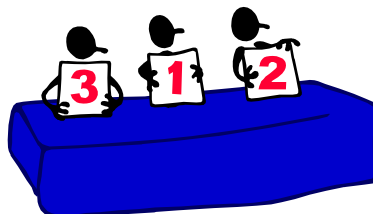
The Evaluator and Critic

- “Yes but
- The critic evaluate the options
- Looks for pit falls
- Feedback both positive and negative criticism
- “What else have I missed
- “What will make this fail
- “Every plan has a weak link.....”



The critic is an evaluator. They give not only negative but also positive feedback on improvements. The aim of the critic is to avoid Murphy's law by finding all the possible problems.

The ideas can then cycle back from the critic to the realist or dreamer for more input. Most interactions are productive but going from the dreamer to the critic is a sure way to destroy creative ideas.



Creative Strategy Preferences

Individual preferences

How would you rate your individual preferences for Dreamer, Realist and Critic?
Which one are you more inclined towards?
Which one are you least inclined towards?
Give your instinctive response. Tick a box for each.

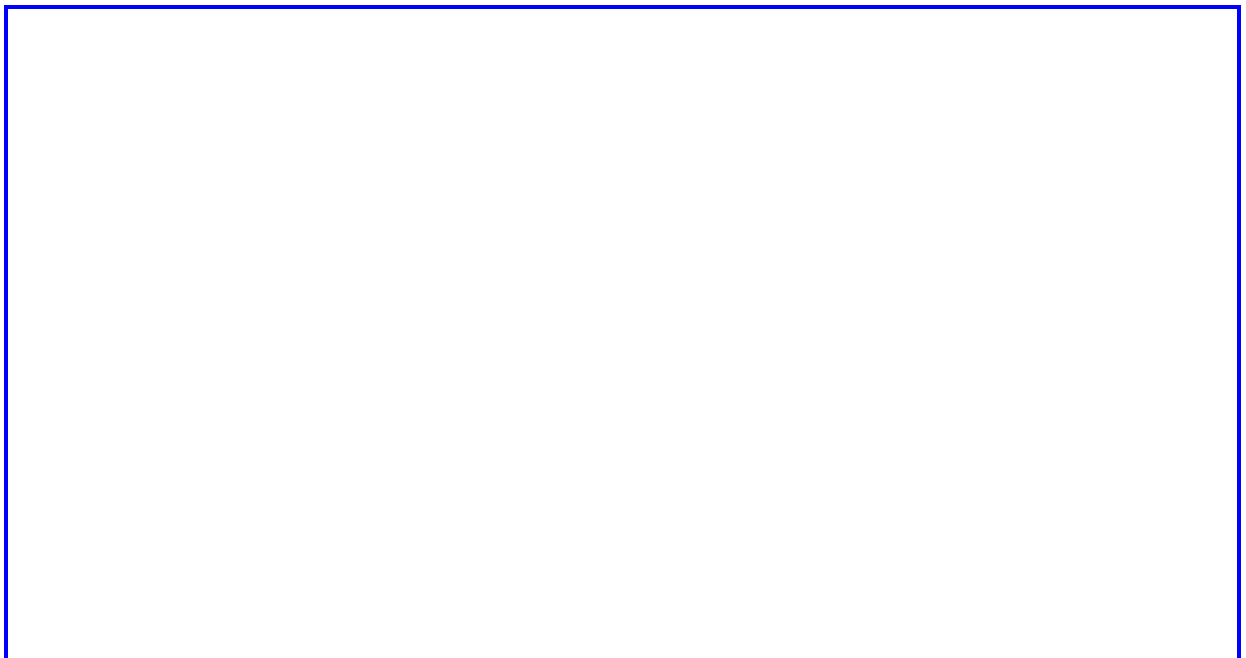
	First pref	Second pref	Third Pref
Dreamer			
Realist			
Critic			

Draw a diagram of how you interact with the creativity cycle.
Draw a second diagram of your ideal view of the creativity cycle.

Six thinking hats – Edward de Bono

This is a series of different viewpoints that can allow people to open out ideas based on facts before they evaluate and narrow down to a solution.

- White hat – collection of information - facts, figures etc. The research phase
- Yellow hat – positive optimism, looks for benefits
- Green hat – the creative phase when ideas are generated of any description - from practical to way out wacky.
- Red hat – expression of feelings, often a very good indicator of intuitive thoughts on problems but often voiced in other ways.
- Black hat – looks for what's wrong or not going to work, the judge or evaluator.
- Blue hat – standing back and taking an overview and summary of the process.



Critic phase - Clarify the problem

*“Genius is one percent inspiration, and ninety-nine percent perspiration.”
Thomas Edison*

Your mind works best to find creative answers if there is a clear problem. Most inventors see a problem from a different perspective than everyone else.

Write it down in a question form.

Your mind does not like unsolved questions.

You will make it subconsciously look for an answer.

It is often a good idea to write the question one day and return to it the next (see incubation time later on p36)

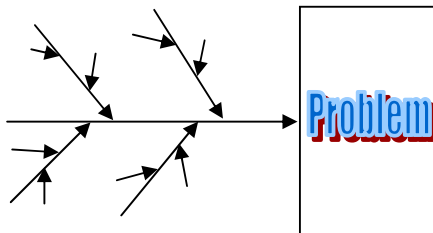
Look at sub-problems



Use a diagram or picture.

Either start with central problem and attach ideas around it (spider diagram) or use a fish-bone.

The problem is on the right with a line bringing causes of the problem in, with main areas such as people or money having smaller contributions running in.



Don't forget that you can return to your problem and redefine it as you generate solutions.

Assumptions kill creativity

Try not to close down your creativity by including too many assumptions.
For instance the two problems:
redesign the umbrella and
design something to keep you dry in the rain
will give very different creative solutions.



“When you come to a road block take a detour”
Mary Kay Ash

Task Analysis

The aim of task analysis is to gather as much information about the system (or project) that we are working on. By being thorough and methodical in our gathering of information we build a greater understanding of the issues that we must address. This enables us to see clearly aspects of the system that don't work and gain insights into areas that though already useful could be improved.

The technique is divided into two key stages:

1. List as many activities involved as you can that relate to your topic.
2. Score the list with a value that is important, for instance, how easy/difficult is a specific activity? (0 is easy, 10 is difficult) or how vital is this component to the project.

The end result of the task analysis will be to identify areas that are ready for innovation and creative improvement.

Example: Writing a report

Make a detailed break down of all the components of the task then assign a score from 0-10 of how annoying or difficult that part is.

- | | | |
|---|---|---|
| 1 | Be given brief to write report | 2 |
| 2 | Check brief with sponsor (the person that wants it) | 5 |
| 3 | Check who is going to read it | 2 |
| 4 | Collect information | 8 |
| 5 | Decide which bits to put in | 7 |
| 6 | Decide on the report structure | 6 |
| 7 | Start writing | 9 |
| 8 | Proof reading | 8 |
| 9 | And the list goes on.... | |

Choose the worst step in the process then express that step as a problem and use creativity tools to find a solution.

Work based project

Pick a work related project or task and try the process on that.

First write down each specific action you can think of

Then give each part a score from 0-10 for the level of annoyance or difficulty you find when doing each specific action.

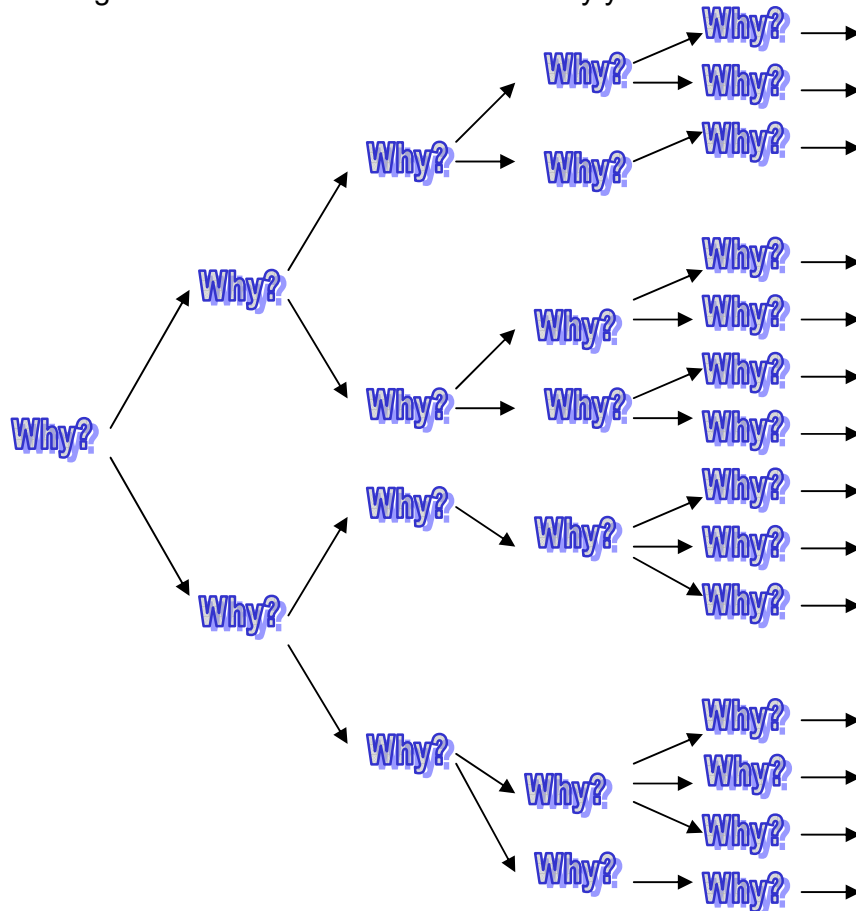
Task	Score

Idea Quota

Set yourself a challenge to find five solutions every day for a week. The first 5 will be hard but then they will start to flow. Collect them in a box and then after the week go back through them and see if you have any gems.

Asking five Whys

Start with the problem then ask why. Keep asking why until you have come to a problem that can be solved then work back up the line of whys. Usually 5 is the perfect number to get to the root of a problem. You can represent this visually like a tree with each why dividing into more branches. Instead of why you can ask how does this help?



Try to find at least two answers to your question.

Why not find three for some of them or one – don't get stuck at two?

*“When ever man comes up with a better mousetrap,
nature immediately comes up with a better mouse”
James Carswell*

Phoenix list

Developed by CIA to help solve problems.

The problem

Why is it necessary to solve this problem?
What benefits will I receive when I solve this problem?
What is the unknown?
What is it you don't understand yet?
What is the information you have?
Is the information sufficient? Or redundant? Or contradictory?
What isn't the problem?
Should you draw a diagram of the problem?
Where are the boundaries of the problem?
Can you separate the various parts of the problem?
Can you write them down?
What are the relationships of the parts of the problem?
What can't be changed and is constant in the problem?
Have you seen this problem before?
Have you seen this problem in a different form?
Try to think of a familiar problem having the same or similar unknown.
Can you use someone else's solutions?
Can you restate your problem?
Can you make it more general?
Can you make it more specific?
Can the rules be changed?
What are the best, worst and most probable cases you can imagine?

The Plan

Can you solve the whole problem?
What would you like the resolution to be?
Can you picture it?
How much of the unknown can you determine?
Can you derive something useful from the information you have?
Have you used all of the information?
Can you separate the steps of the problem-solving process?
Can you determine the correctness of each step?
What creative techniques can you use to generate ideas?
Can you see the result?
How many different results can you see?
Can you intuit the solution?
Can you check the result?
How many different ways have you tried to solve the problem?
What have others done?
What should be done?
How should it be done?
Where should it be done?
Who should do it?
What do you need at this time?
Who will be responsible for what?
Can you use this problem to solve some other problem?
What is the unique set of qualities that make this problem what it is and no other?
What milestones can best mark your progress?
How will you know when you are successful?

Defining criteria for the solution

Although you don't know the solution you can define criteria for the boundaries of an acceptable solution

What are the criteria I can define for possible solutions?

What are unacceptable outcomes?

[Dreamer phase – Generating ideas](#)

“The ultimate solutions to problems are rational; the process of finding them is not”
W.Gordon

How many uses can you think of for a paper clip in two minutes?

Got up to about 10? Well done you are already very creative.
However, did you think more creatively about what a paper clip might be?
It could be a clip made of paper.
It could be made of springy wood or plastic.
What if it were 1000 times smaller?
What if it were 1000 bigger (how about melting it – what could you make then)?

[Creativity is about focusing very carefully on what might be and how you could change it.](#)

Do you know the difference between a creative person and someone who's not?

Lots of studies in many companies have come to the same astounding conclusion – the only difference is that a creative person thinks that they are creative.

Most creative ideas are collections of parts that already exist.

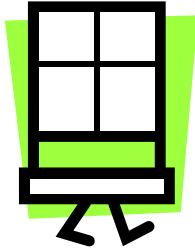
[Leonardo da Vinci's list for a creative brain \(quoted in Head First, Tony Buzan\)](#)

- ✓ Develop your senses.
- ✓ Study the art of science.
- ✓ Study the science of art.
- ✓ Realise that in some way, everything connects to everything else.

Tony Buzan's (Head First p23) list of creativity characteristics

- ✓ Associate new and unique ideas with old ideas that already exist.
- ✓ Use colour when making notes.
- ✓ Use pictures and shapes when making notes.
- ✓ Create big internal mental landscapes, visualise and magnify in 3-D.
- ✓ Practise seeing things from a different point of view – become what you are trying to change (e.g. become a cooker, a sock, a tree for a day (or even a student) and see what you'd change from that perspective.
- ✓ Link pre-existing concepts and rearrange them, pick a random word and associate it with your idea.
- ✓ Reverse pre-existing concepts.
- ✓ Respond fully to aesthetically appealing objects.
- ✓ Respond emotionally to all aspects of life.
- ✓ Express yourself in unusual and energetic ways.

Framing



We all have different ways of viewing the world. Consider a room on the edge of town with two windows. One looks out onto the countryside, the other onto the city. Both are views from the same building but give very different perspectives.

How frames distort what we see (from p23 Winning Decisions)

- They control what information is attended to and what is obscured. No single window can reveal the whole panorama.
- Frames are hard to see. Just as we have to step back from a window to see what is there, so too do we have to step back from our frame to see that we are viewing a world from a particular perspective.
- Frames appear complete. Frames simplify the world. They do not capture all of reality, leaving gaps. But since our mind tends to fill in such gaps, we usually don't even notice that anything is missing.
- Frames are exclusive. We typically see one frame at a time.
- Frames can be sticky and hard to change. Once we are locked into a frame, it can be hard to switch, especially with conscious effort. When people have emotional attachment to their frames, changing frames can seem threatening.

Creativity tools can help to move you from window or even create new windows of opportunity.

What frames or assumptions are you using for your problem?

Creativity Tools

“Discovery consists of seeing what everybody has seen and thinking what nobody has thought” Albert Szent-Gyorgyi

Analogy and metaphor

Analogy is similar to the random word technique but this time you choose the word to associate it with from an initial idea and then develop it further.

Example: organisations are like trees.

A metaphor takes it one step further and says your problem is the new word.

Examples time is money, ideas are food.

Asking other questions

What is the problem?

Where does it happen?

When does it happen?

How does it happen?

Why does it happen?

Who is involved?

Pretend to be an alien and look at your question with intelligent ignorance – ask yourself dumb questions about it.

Brainstorming or ideas shower

*“Whether you believe you can, or whether you believe you can’t,
you are absolutely right”, Henry Ford*

It is frequently used to get a list of ideas in a short space of time.

Just let ideas flow until they run dry.

Hints: Always make sure you have no interruptions and a way to record the ideas
All contributions must be accepted during the brainstorm even if they are daft
and humorous do not censure yourself.

You need to give yourself clear brief on the problem to solve.

Variations: See concept (or meta) mapping.

Don’t write any words just draw pictures.

Brainwriting

Brain storm where ideas are not shouted out they are written down by the individuals – very powerful if combined with a metemap.

Just set a topic and keep going for 5 full mins

– keep going no matter what nonsense you write down.

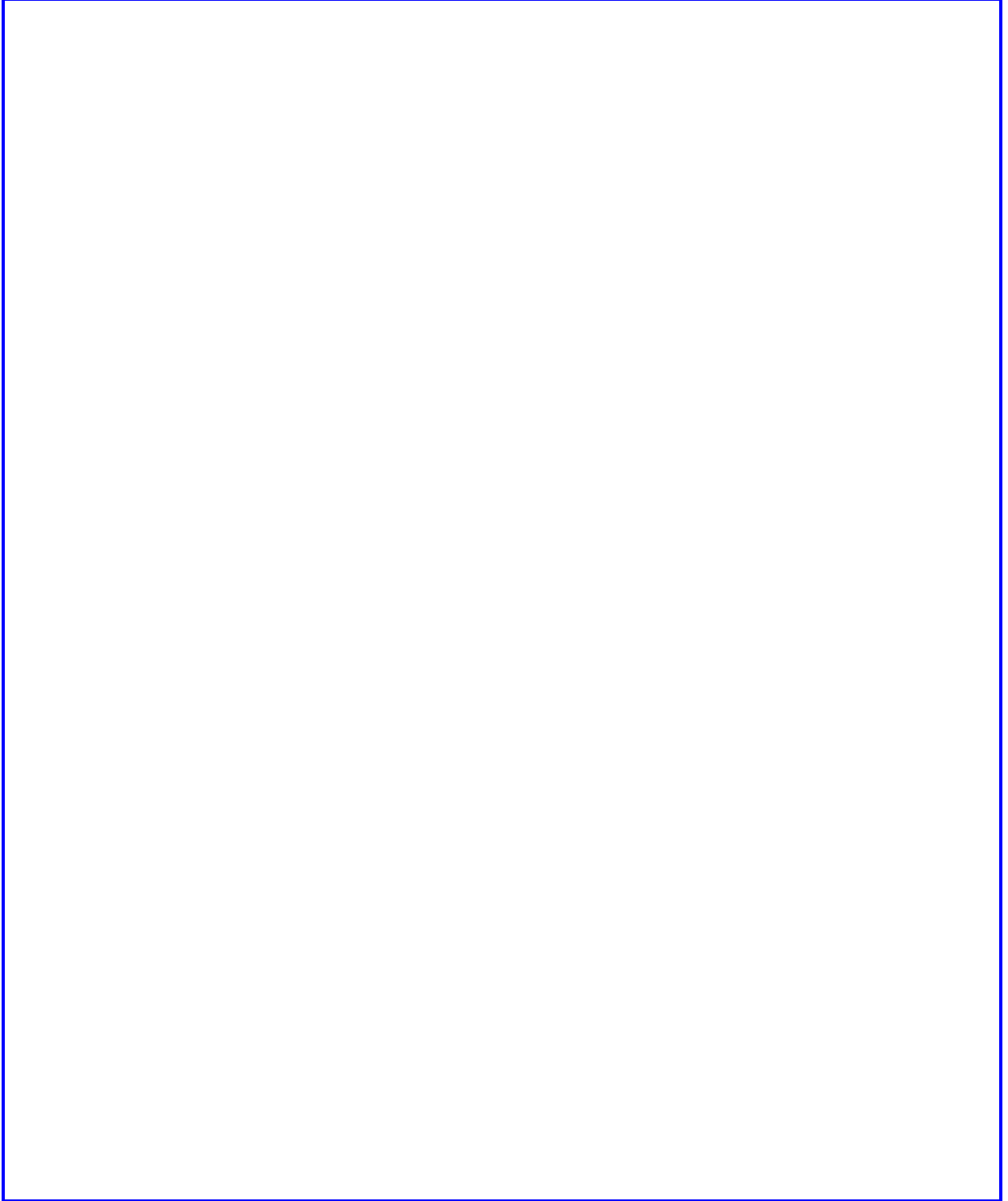
Variations: In a group get each person to write three ideas on a piece of paper then pass it onto the next person round in a circle.

Reverse thought shower

Instead of thinking about how to solve a problem, work how to make it worse – much worse – global catastrophe scale if necessary. This can be much more productive as it can overcome brain blocks that asking yourself for solutions can cause.

For example with the paper clip – how would you make paper come apart instead of keep it together?

Reversing your reversal can lead to a whole new creative flow.



Changing something that already exists (Thinkpak, Michalko)

“What is originality? Undetected plagiarism.” Dean Inge

S	Substitute something
C	Combine it with something else
A	Adapt something to it
A	Associate it with something
M	Magnify or add to it
M	Modify it
P	Put it to some other uses
E	Eliminate something or miniaturise
R	Rearrange it
R	Reverse it

Back to the paper clip.

What can be substituted in the clip?

What can I combine the clip with to make something else?

What can I adapt to the clip?

How is a clip like a [random word] (e.g. house)?

What would happen if I magnified the clip?

How can I modify the clip?

What other uses can I find for the clip?

What can be eliminated from the clip?

What would happen if it were microscopic?

What is the reverse of clipping?

What rearrangement of the clip might be better?

Concept (or meta) maps

It can often help to get an overview of a subject by creating a diagram of how they see the areas interlinking.

Use brainwriting onto post-its and then organise them onto a wall in clusters that make sense. Then find overarching categories to label the different areas. This can work well if someone else does the organisation for you.

Variations: Draw a flip chart diagram (poster) of what the main concepts of the problem.

If you have a group you can use a meta-map relay – get small groups to brainstorm the subject with a constant scribe. Each time 4 new ideas are generated a different person from the group takes them to a wall where all of the ideas of the whole group are being collected. They choose where to place them then return to their team (who meanwhile have been generating more ideas). At the end of the session the scribes all go to the wall and move any around they wish and choose headings for groupings. You can give this a competitive edge by using different coloured post-its but this may detract from the overview the map creates.

Draw your problem

Draw your problem in pictures, using colour.

Or model it in 3-D with doh.

Variations:

Let your mind doodle and ask how the pictures help.

Use other people's pictures to spark new words (pictorial random words).

Use hieroglyphics – pick a piece of Egyptian writing and focus on a line.

Idea grid (or morphological analysis)

List the attributes - functions, features and characteristics on the top row then underneath each attribute list what options and then look at different combination.
E.g. (p119, Thinktoys)

Improving a design for a laundry basket				
	Material	Shape	Finish	Position
1	Wicker	Square	Natural	Sits on floor
2	Plastic	Cylindrical	Painted	On ceiling
3	Paper	Rectangle	Clear	On wall
4	Metal	Hexagonal	Luminous	Chute to basement
5	Net material	Cube	Neon	On door

Idea: laundry basket on a basketball hoop attached to the door.

Variation: Instead of listing variations on the properties construct a grid with the attributes on one axis and change words on the other. Then you have 10x your number of attribute possible variations.

Attribute	Enlarge	Modify	Shrink	Omit	Switch round	Merge	Add to	Detach	Inside out	Break up
XXXXX		✓								
XXXXX										

If only... or Provocation (Po – Edward de Bono)

“Imagination is the beginning of creation” George Bernard Shaw

Similar to reverse brainstorm but you don't necessarily completely reverse the idea it can be a related or impossible what if.

For instance

What if we only had 6 fingers?

What if we lived under the oceans?

What if the government passed a law saying everyone must be in full time education until they are 21?

What if the money was banned?

What if we could upload and download information from our brains into computers?



Laddering or Chunking

"We cannot solve problems at the same level at which we have created them"

The quote above by Albert Einstein defines one of the main aspects of solving problems, namely the need to perceive the problem from a different perspective, in order to develop new solutions. A key skill for creativity is to hone the ability to explore different perspectives at will.

You already do this but do you know how?

How do you move up to the bigger picture? Are there images, sounds, words, feelings you go through whilst trying to experience the bigger picture? What are they, and what's the sequence you go through?

Chunking up involves generalising to a larger more abstract level of information by asking "What is this an example of?"

Chunking down involves moving to a more specific, concrete level of information by asking "What is an example of this?"

Chunking sideways involves seeking other similar examples at the same level of information by asking

"What is another example of this?" or "Compare that to this"

It gives you a shift in perspective that can lead to great insights.



How do you move up to the bigger picture?

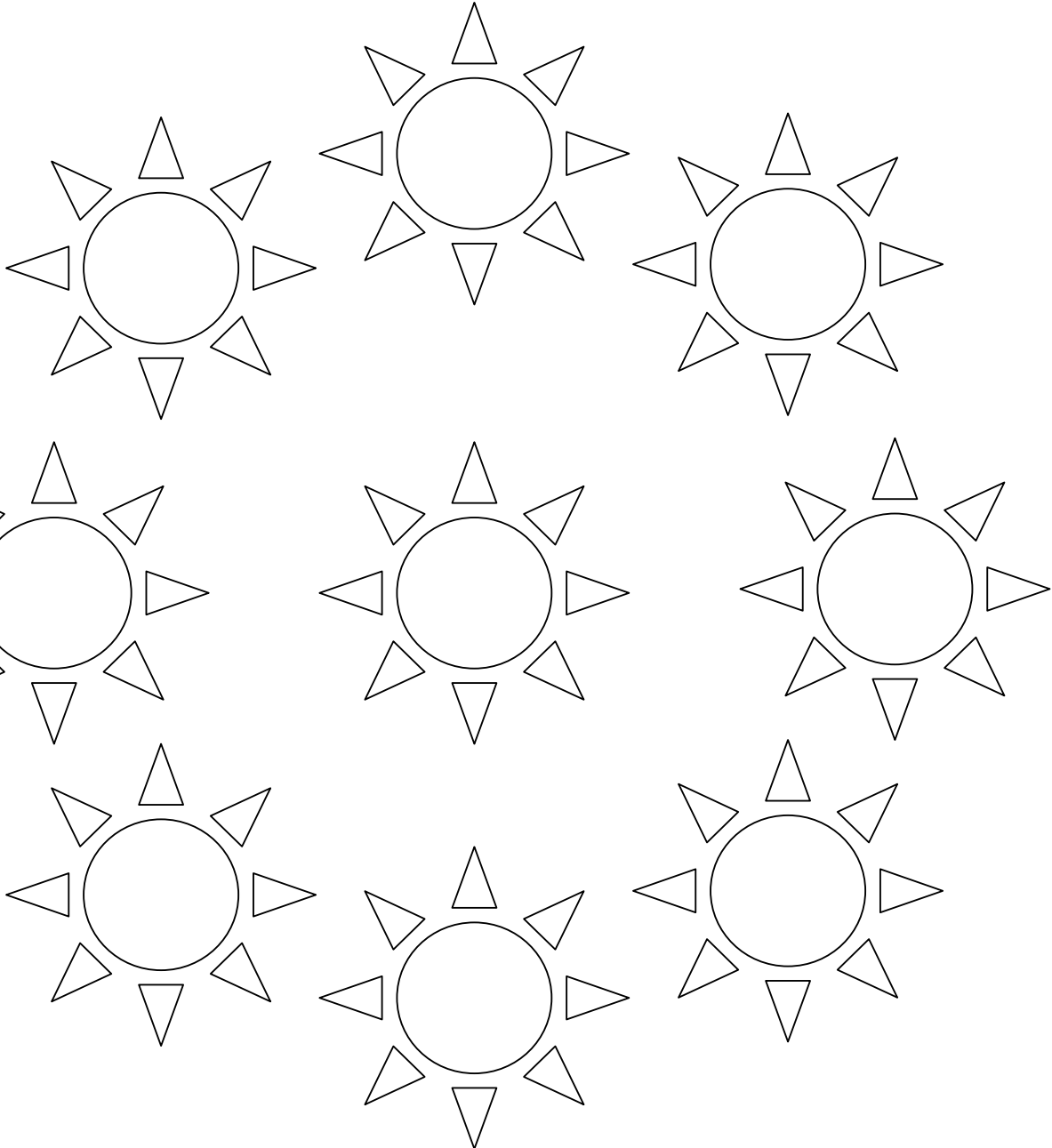
How do you move down to the smaller picture, the detail?

How do you stay or return to the same level?

Lotus blossom



Similar to sun diagram but a further step is to take the generated words and then to use them as the centre of the next association.



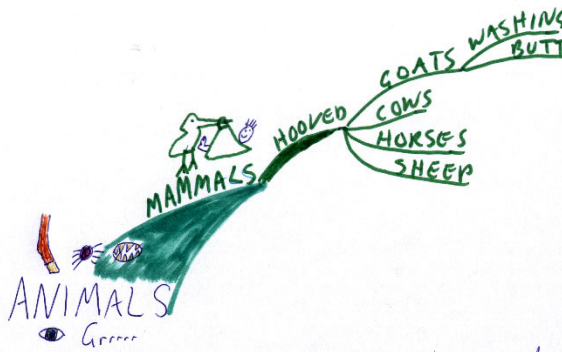
Mind Mapping

1. Use the paper landscape style (min A3 is best) and have coloured pens ready
2. Start with a central theme and a picture, colour it in.
3. Brainstorm all of the main keywords associated with that idea, either on post-its, or using a spider (or sun) diagram, see below. Adding extra blank lines will cause your mind to search for other ideas.
If you really want to get creative choose a random noun and try to make connections with your main theme.
4. Now you can start to organise your data.
5. Have main sub-themes connecting into the main theme, each is a different colour with preferably a picture.
6. Make the length fit the word.
7. Add in connecting side branches.
8. Make the branches different either in colour, style or pictures.
9. If you need extra ideas on a topic add blank lines, your mind will search to fill them.

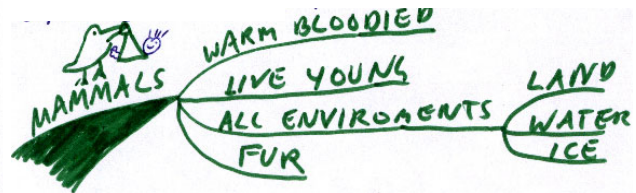
Uses

- ✓ They are great for brainstorming and organising a topic (creativity).
- ✓ Getting an overview of a topic.
- ✓ Memorising a topic.
- ✓ Mind maps can be used to take notes either in lectures in meetings (a branch per agenda item).
- ✓ They can be used to get a holistic view of a subject.
- ✓ They can be used in presentations to give an overview (I used one in a 10 min interview presentation – great because you can keep exactly to time).

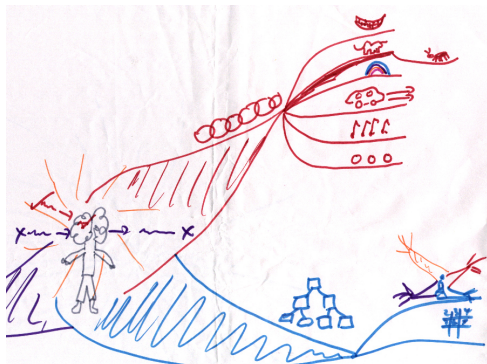
If you are outlining a topic then you use the tree structure to focus on aspects of the topic use keywords, getting more specific as you get further away from the centre:



Or depending on the purpose:



Pictures only



Final mind map (generated from a sun diagram)



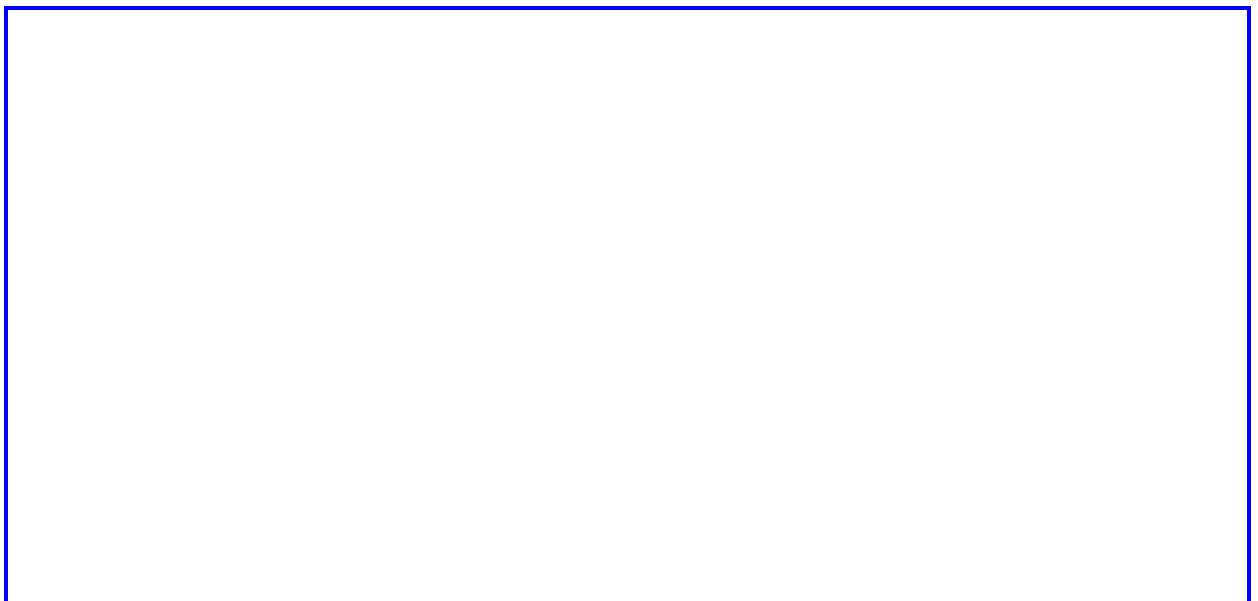
Perspective change



Become someone or something else and view the problem and solutions from that perspective.

Be an alien, a student, a window, a white board marker, a child. Try to get into character and really become that person or object and see the problem and solutions from that perspective.

A famous example of this is Einstein becoming a sun beam when he thought of relativity.



Random Word Connections

*“The creation of a thousand forests is in one acorn”
Ralph Emerson*

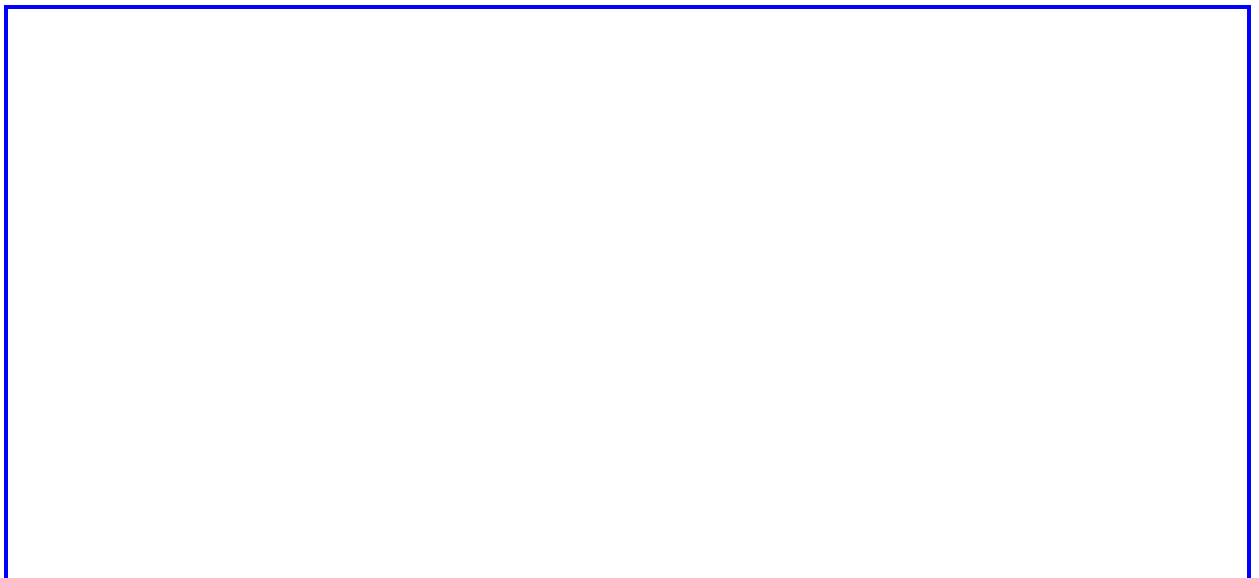
Your brain doesn't like loose ends – it likes to connect ideas together. This can be used as part of the creative process by choosing any random noun and trying to find links between that and your problem.

Use this grid with a random pointer to find a word to help today. Then associate freely around that word but without thinking of your problem. Then connect what you've got with your problem.

Don't change your choice – this only works if you spend a bit of time with one word.

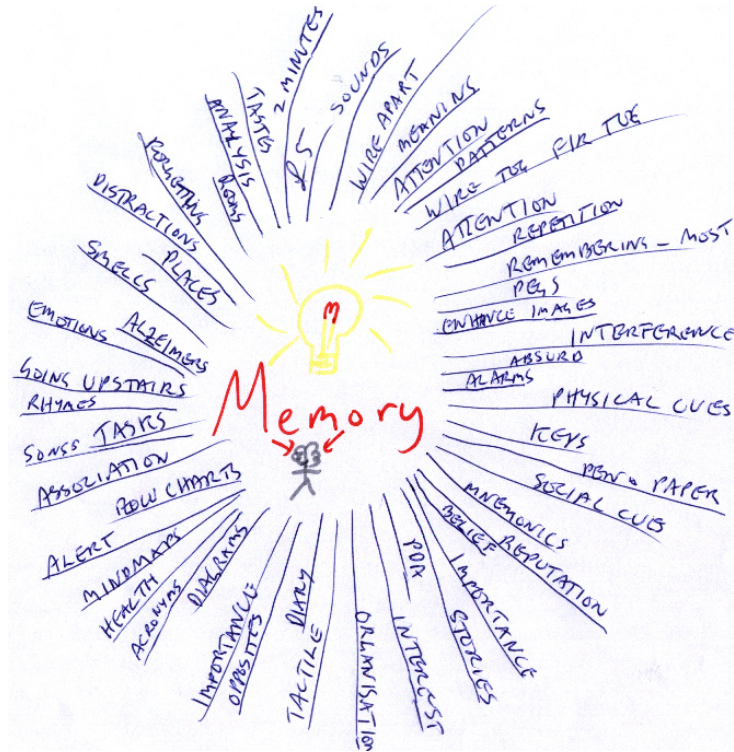
Sellotape	Envelope	Football	Daffodil	Train	Dragon	Bee	Watch
Plastic bag	Sink	Knife	Rave	Glue	Barbecue	Butterfly	Mouse
Ice Berg	Storm	Pub	Pyramid	Compass	Light	Council	Library
Clock	Paint	Wolf	Zoo	Razor	Heart	Snake	Tree
Oceans	Moon	Pencil	Oil	Medicine	Soil	Pump	Rainbow
Wine	Judge	Car park	Kettle	Ruck sack	Pig	Bath	Spaghetti
Bear	Rubber	Swimming	Camera	Gate	Referee	Glasses	Bowl
Sun	Hospital	Digestive system	Thief	Map	Shark	Police	Knot

Instead of words you can start collecting objects and newspaper clippings and pick one at random.



Sun Diagram

Have the problem in a central position. Draw blank lines radiating from it – keep filling them until they are full. Then add a few more. Can be used a preliminary to mind mapping.



Two words

Pick two key words to summarise your problem. Now ignore the problem. Now list all of the words that you can think of that mean the same thing. When you have 5-10 then recombine them systematically in new pairs and see if it gives a new perspective.

Variation: Use three words.

Use antonyms of the summary words (similar to a reverse brainstorm).

Intuitive techniques

"Every time you don't follow your inner guidance, you feel a loss of energy, loss of power, a sense of spiritual deadness."--Shakti Gawain

Defining a problem and then leaving it for a while can help to solve it – ideas often come later in the shower or whilst out walking.

It is hard to do this deliberately in time constrained situations but there are a couple of things that can help:

Imagination walk

Design yourself an imagination walk where you find the answer.

A good example is to write down the problem then clearly imagine yourself putting it in a bottle and casting it into the ocean, make it very vivid with sights, smells, sounds and textures. Then later imagine walking along the beach and finding the answer returning to you in your bottle. Make the images very clear and take your time – about 20 minutes enjoying the walk along the beach.

Another one is to create a sage or oracle who knows all the answers but can only be accessed by a hard and convoluted journey to their cave, temple or tent.

Create yourself an imaginary panel of experts to ask the question to – these could be anyone that you feel can help answer the problem from your kids to Issac Newton. Make them as real as possible and visit them with lots of different questions.

"Every great advance in science has issued from a new audacity of imagination"
John Dewey

Music

Classical music with about 60 beats per minute, particularly Baroque, has been shown to relax the mind into a state where ideas flow better.

Examples include

Brahms concerto in A minor op 102

Chopin piano concerto no 1 in E minor op11

Beethoven sonata no 14 in C sharp ,minor op27

Vivaldi L'Estro Armonico op2 concerto no 5 in A major.

You can even purchase special CD's for this – called Music for Accelerated Learning

"Music is the art of thinking with sounds"
Jules Combarie

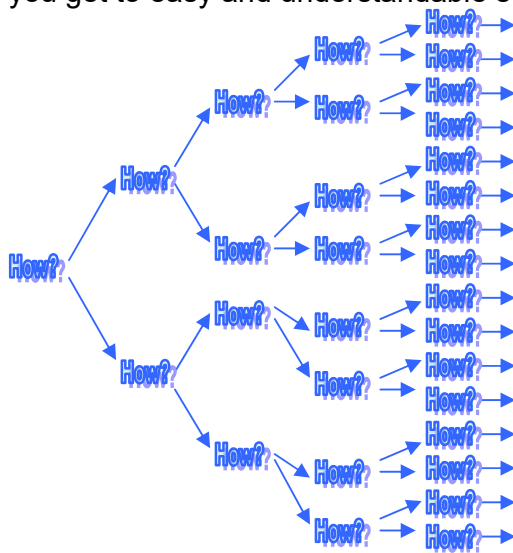
Relax

Do anything that relaxes you but doesn't require too much thinking such as swimming or running.

Realist

5 Hows?

Similar to 5 whys? - just keep asking how you are going to implement the solution until you get to easy and understandable steps

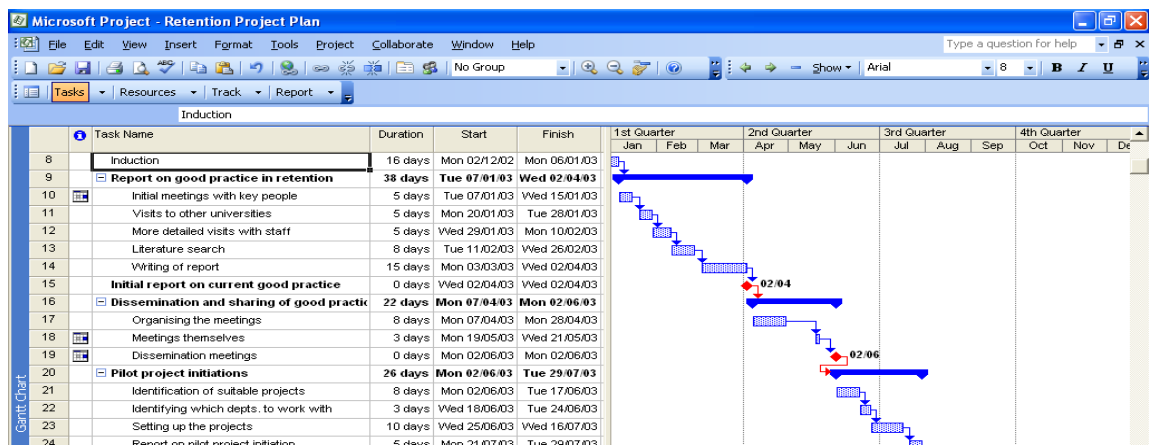


Mindmapping

(see earlier) This works very well as a follow up to sun diagrams.

Project management tools

For example Gantt diagrams, PERT charts and flow charts (see any good project management book).



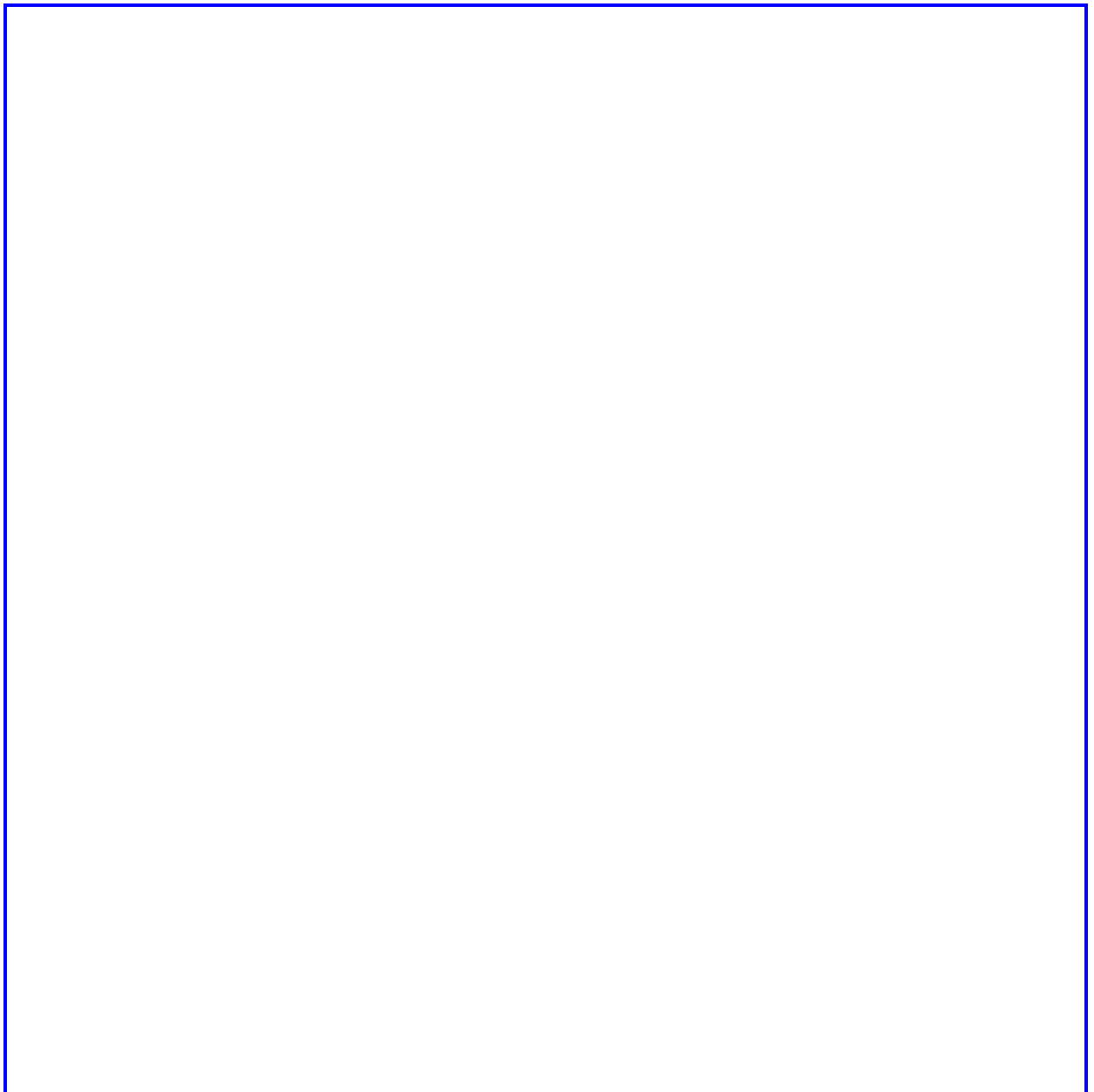
Evaluation stage

“What is now proved was once only imagined” William Blake

Forced Pair Analysis

List all of your solutions then systematically compare them in pairs. Number each solution then take solution 1 and compare it to 2 and decide which is better, give the best one a point. Now do 1 and 3 etc. Then start with 2 and compare it down the list e.g. 2 with 3 and the 2 with 4. At the end you have compared all the solutions with each other but have only ever had to deal with 2 at time. Add up the final score and the higher scorers are probably the better solutions. You can now prioritise your solutions with the higher scoring ones using fish bone and SWOT analysis.

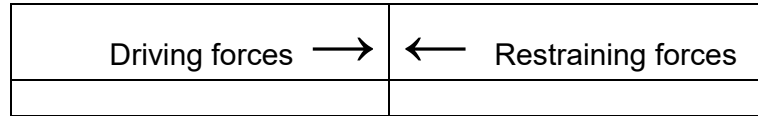
*“Perfect solutions to our difficulties are not to be looked for in an imperfect world”
Winston Churchill*



Force Field Analysis

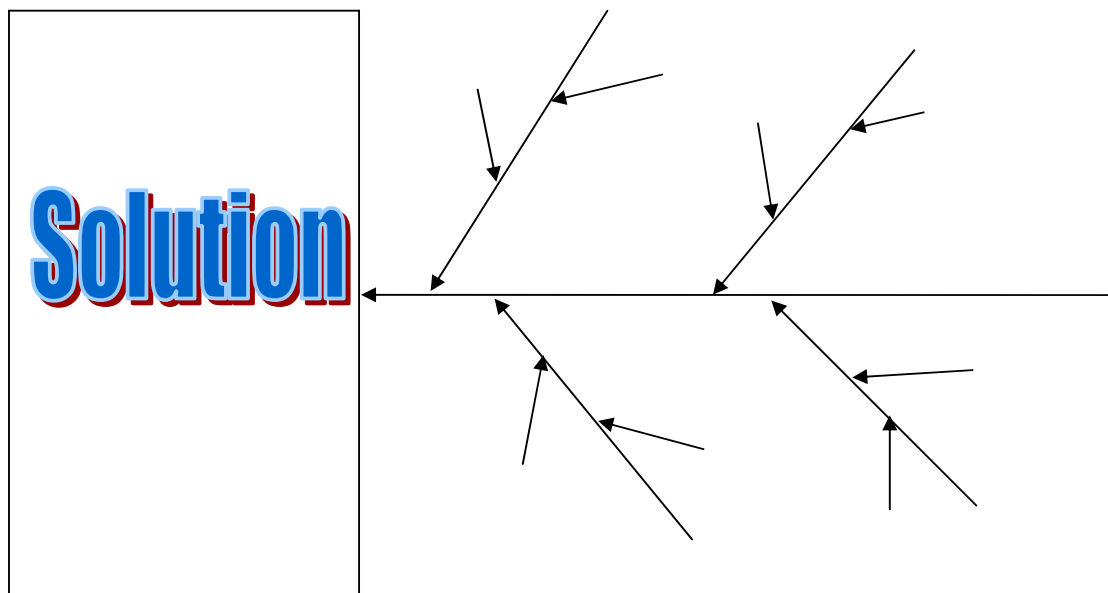
Put driving forces on the left and restraining forces on the right use arrows in proportion to the size of the force. Always point the arrows at each other – It's like a rugby scrum the strongest side will push the other out. It gives a visual feel for which are larger.

Eg. Try and do one for moving house.



Reverse Fish Bone

Reverse fish bone with components required for a solution leading into the solution on the left



*"If I have seen further it is by standing on the shoulders of giants"
Isaac Newton*

Scenario planning

List between 3 to 5 key drivers that could affect your project. Then consider large changes to the current status. Construct a story about how the world would be if the changes happened. Make it as real as possible.

E.g.: key drivers could be internet competition, interest rates, global competition, and supply of raw material.

Scenarios can be either positive or negative (you can run three, best, status quo, worst case scenarios). Make them very specific and present tense.

E.g. Interest rates have increased to 25 %.

The raw material has decreased in cost by 35%.

Walk through

Take yourself into the future where your solution has been implemented. Take a good look at all of the consequences. Look in particular for unplanned knock on effects.

Change perspective – become a student, a fly on the wall, a chair in the room, a child and go through the scenario again from this viewpoint.

Initially just feel what it is like as it is working, make notes on the good aspects of what is happening.

Now, however, imagine the solution has failed and is a disastrous solution and causing multiple problems.

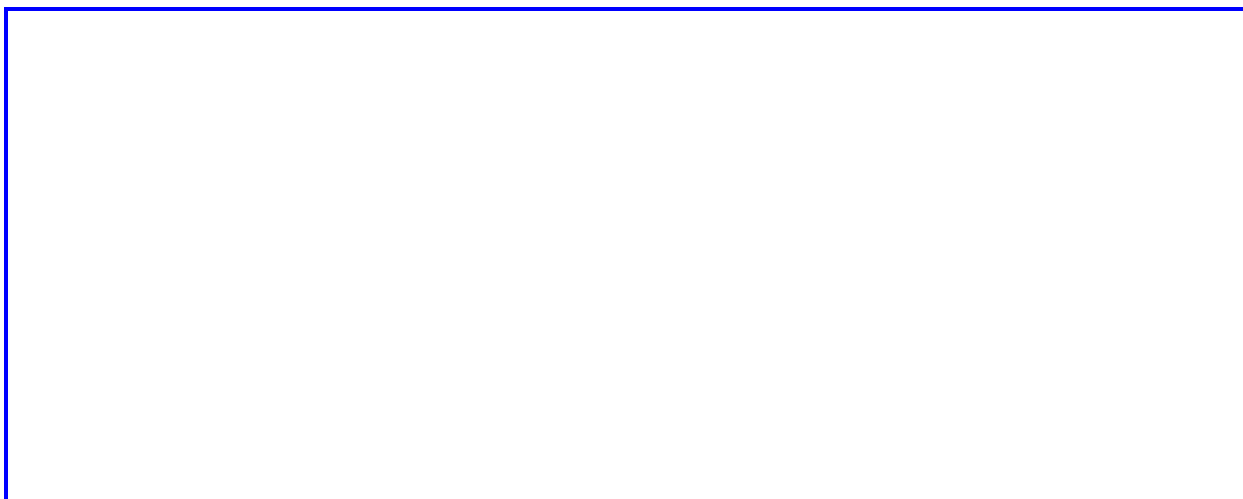
Why has it failed?

List the problems and their causes.

Come back to today – now is it still a good solution and if it is what can you do to ensure it doesn't fail the same way it did last time.

Repeat the process a couple of times until you just can't conceive of any possible reason for failure.

Always end up with another successful walk though to feel how the solution will benefit you.



SWOT – Strengths, weaknesses, opportunities and threats

Draw a grid listing the SWOT for each solution

You can then do a TOWS analysis when you combine the four

	Strengths	Weaknesses
Opportunities	What options are there when the strengths and opportunities are combined?	What options are there when the weaknesses and opportunities are combined?
Threats	What options are there when the strengths and threats are combined?	What options are there when the weaknesses and threats are combined?

If you have many of each option then you can construct an idea grid (see above) and try combining different aspects with each other.

3 of a kind

For each solution think of:

- Three things that are good about it
- Three things that are bad about it
- Three things that could be improved
- Three things that are interesting about it.

Evaluation cards

These can be used to help get an evaluation or group consensus on a problem in a fun and non-threatening way.

Variation 1: where you have a single problem to solve as a group

Either have pre-printed solutions on file cards
or get participants to write out solutions on the file cards

The group randomly swap cards then pair up with someone next to them. They then allocate 7 marks between the two cards depending on the criteria given (e.g. best solution, most imaginative solution, worst solution etc.). All the points can go to one card or they can be split fairly evenly (no half points). The score is then written on the reverse of the card. If you do 3-4 cycles of this the scores will give a feel for the group consensus.

Variation 2: where each person has brought a problem

Each person writes their problem on a large file card. Cards are then swapped randomly either in pairs or individuals a solution is written on the back, do about 4 cycles of this and you have 4 different solutions to choose from, all independent of each other as they should not look at the reverse until ready to write on it.

Strategies for shattering creativity blocks

Circle of Excellence (NLP – Neuro linguistic programming)

Emotions and physiology can be deliberately linked to a stimulus (like Pavlov's dogs) that is not the original one.

A set of internal feelings and external body position is known as a state.

An anchor is an action that can allow you to access a state at will.

You need to choose something that you would not usually do – such as touch your wrist with your opposite thumb.

Emotional state  *Imaginary or physical link*



Imagine a space in front of you – many people use a circle.
Make the circle your own space.

Go back in time to an emotion you'd like to be able to access – confidence, creativity, happiness, mastery, imagine you're there again think about your senses both internally and externally:

- ✓ Vision
- ✓ Sound
- ✓ Body position
- ✓ Tactile
- ✓ Surroundings
- ✓ Tastes
- ✓ Smells



When you feel you're really there let the emotion build and step into the circle.

As you feel the emotion peak step, out of the circle.

Repeat the process either with the same emotions or other resourceful states.

Take your circle of excellence with you – any time you would like to access those feelings imagine it there before you and step into it.

Notes

Self affirmations

Your self-talk can be an area to work on to help your creativity.

The brain is very good at registering positives.

Develop 3 positive thoughts about your creativity and then think to yourself every day as you get up.

Daily Brain writing

(ref The Artist's way)

For a solution to long term artistic recovery I would highly recommend following the programme in the Artist's Way by Julia Cameron.

This involves hand writing 3 A4 pages every single morning along with other exercises.

For the first 5 weeks you keep your writing but don't read it.

After that you can choose to read it if you wish.

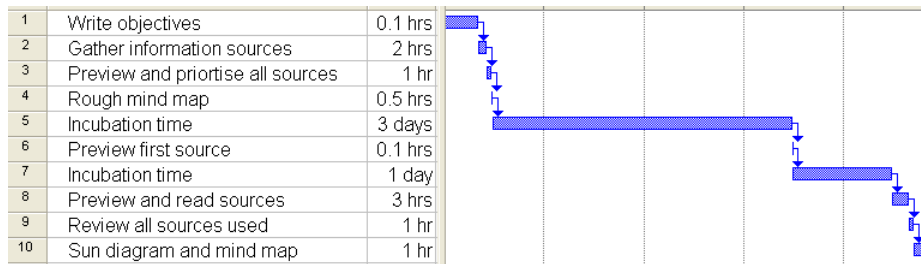


Incubation time

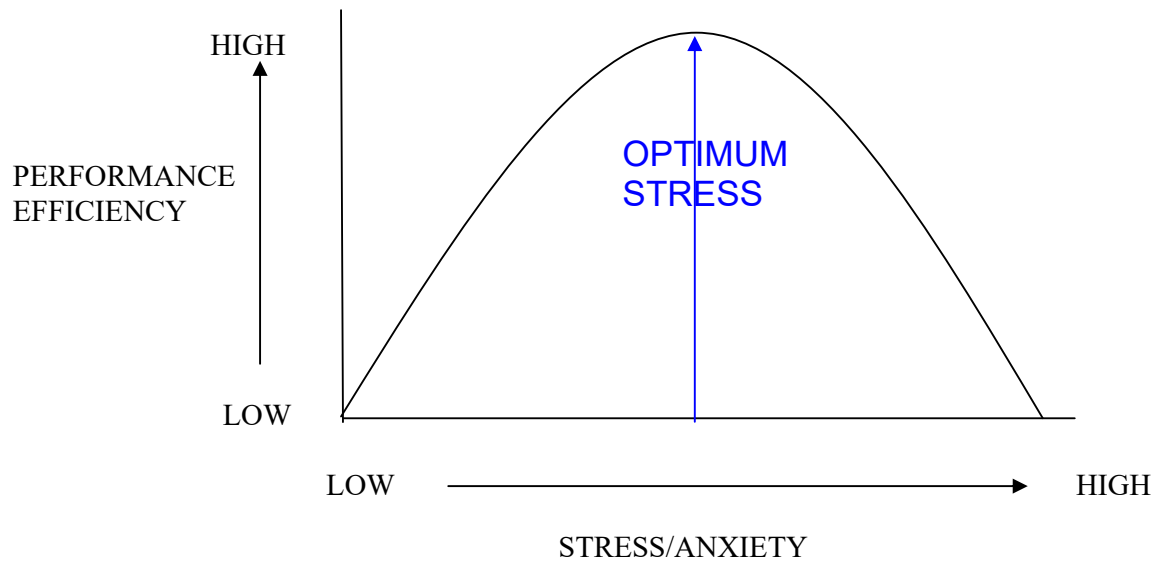
There are many stories of creative geni where they thought hard about a problem then left it for a while – 1 day to a few weeks (but sometime years). To then suddenly come up with a brilliant and imaginative idea.

During the incubation time you do anything except work on the project.

After the incubation time you start afresh and ideas will flow.



Break-out or relaxation principle – setting your mind to freewheel



At the point of optimum stress you then need
(see p40-43 of the Breakout Principle for a full list)

Examples:

- Music
- Art
- Poetry
- Peaceful surroundings
- Cloud watching
- Shower
- Bath
- Floating
- Repetitive routine such as make up or shaving
- Walking
- Jogging
- Cycling
- Fishing
- Gym
- Watching sport without strong emotion
- Conscious breathing
- Meditation
- Flame watching
- Watching fish
- Gardening
- Washing up
- Painting (house)
- Cooking
- Prayer
- Sharing ideas with others



Which work for you?

The idea is to do an activity that you can lose yourself in and allow your mind to freewheel.

This sets up a completely different brain pattern that allows your brain to make undiscovered connections and releases chemicals that help you think better. Often during or soon after the trigger the solution to your problem will emerge.

My action plan.

List anything you'll change or follow up on after this session.

Put a date when you'll do it by and use I

Resources

Creativity

Go and buy these today – they are excellent

Thinkertoys, Michael Michalko, Ten Speed Press, 0898154081

Serious Creativity, Edward de Bono, HarperCollinsBusiness, 0006379583

Tools for Success a Manager's Guide, S.Turner, McGrawHill, 0077107101

The Artist's Way, Julia Cameron, Tarcher, 1585421464

The Breakout Principle, Herbert Benson and William Proctor, Scribner, 0743223977

Think Like a Genius, Todd Siler, Bantum Press, 0593042948

Why Didn't I Think of That?, Charles McCoy, Prentice Hall Press, 0735202575

How to Think Like Leonardo da Vinci, Michael Gelb, Bantum Dell, 0440508274

Tools for Dreamers, Robert Dilts, Mets Pub, 0916990265

The Ultimate book of business Creativity, Ros Jay, Capstone Publishing, 1841120669

Thinkpak, Michael Michalko, Ten Speed Press, 0898156076, associated cards great for structured brainstorming

Creative Whack Pack®, Roger von Oech, 0880795433, Book and cards

CQ, Boost Your Creative Intelligence, Harry Adler, Kogan Page, 0749437065

Six Thinking Hats, Edward de Bono, Penguin, 0140296662

Lateral Thinking, a textbook of Creativity, Edward de Bono, Penguin, 0140137793

Five Star Mind, Tom Wujec, Broadway Books, 0384414625

Mega Creativity, Andrei Aleinikov, Walking Stick Press, 1582971501

Handbook of Creativity, Robert Steinberg, Cambridge University Press, 0521572851, Theories of creativity

Head First, Tony Buzan, Thorsons, 0722540469

Unlock Your Mind, Dennis Sherwood, Gower, 0566079836

Guerrilla Creativity, Jay Levinson, Houghton Mifflin, 0618104682

Little Book of Big Idea, Harold McAlindon, Cumberland House, 1581820542

The Flash of Brilliance Workbook, William Miller, Perseus Books, 0738202398

The Creative Mind, Margaret Boden, Basic Books, 0465014518

Creativity at Work, Tudor Rickards, Gower, 0556027569

Make it happen!, Kathryn Redway, Platjkus, 0749923881

Imagination Engineering, Paul Birch and Brain Clegg, Pitman, 0273620649

The Artist's way at work, Mark Bryon, Julia Cameron and Catherine Allen, Quill, 0688166350

Websites

(please note these are provided in good faith and I have no control over the content of the sites)

www.creativitypool.com/ ideas forum,

www.creativityatwork.com/, training company that has info on creativity

www.creativityforlife.com/ various resources

www.directedcreativity.com/, training company that has info on creativity

www.brainstorming.co.uk, Information on how to brainstorm (also the source of the quotations)

Implementing Innovation

Winning Decisions, Edward Russo and Paul Schoemaker, Platkus, 0749922850
Making Innovation Happen, Michael Morgan, Kogan Page, 0749434325
Make it Happen, Kathryn Redway, Platkus, 0749923881
Creative Management, Jane Henry, Sage, 0803984901
Managing Innovation, Jane Henry and David Walker, 0803985053
Readings in the management of Innovation, Michael Tushman and William Moore, Harper, 0887302440

Mind mapping

The Mind Map book, Tony and Barry Buzan, BBC, 0563487011
Mind Maps in a week, Tony Buzan et al Hodder Arnold, 0340849525
Mind Maps at work, Tony Buzan, Thorsons, 00715500X
Mind Mapping and Memory, I.Svantesson, Kogan Page
Mapwise, Oliver Cavioli and Ian Harris, MPG Books, 1855390590

NLP

Unlimited Power, Anthony Robbins, Simon and Schuster, 0743409396
Change you life in 7 Days, Paul McKenna, Bantam Press, 059305055X
NLP at work, Sue Knight, Nicholas Brealey pub, 1857880706
NLP for Managers, Harry Alder, Platkus, 0749916435
The NLP Coach, Ian McDermott and Wendy Jago, Platkus, 0744992277X

Learning and the Brain

The Accelerated Learning Handbook, Dave Meier, McGrawHill, 0071355472
Mind Sculpture, Ian Robertson, Bantam, 0553813250
Mapping the Mind, Rita Carter, Phoenix, 0753810190
The Private Life of the Brain, Susan Greenfield, Penguin, 0140264914
The Brain, Christine Temple, Penguin, 0140144852
The Human Brain – a Guided Tour, Susan Greenfield, Phoenix, 0753801558
Going Inside, John McCrone, Faber and Faber 0571173195