

Critical Thinking

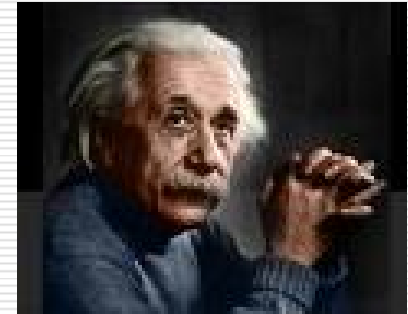
PMI (SA)

21 October 2013

Presenter – Faye Bound



Critical Thinking



“Imagination is more important than knowledge.”

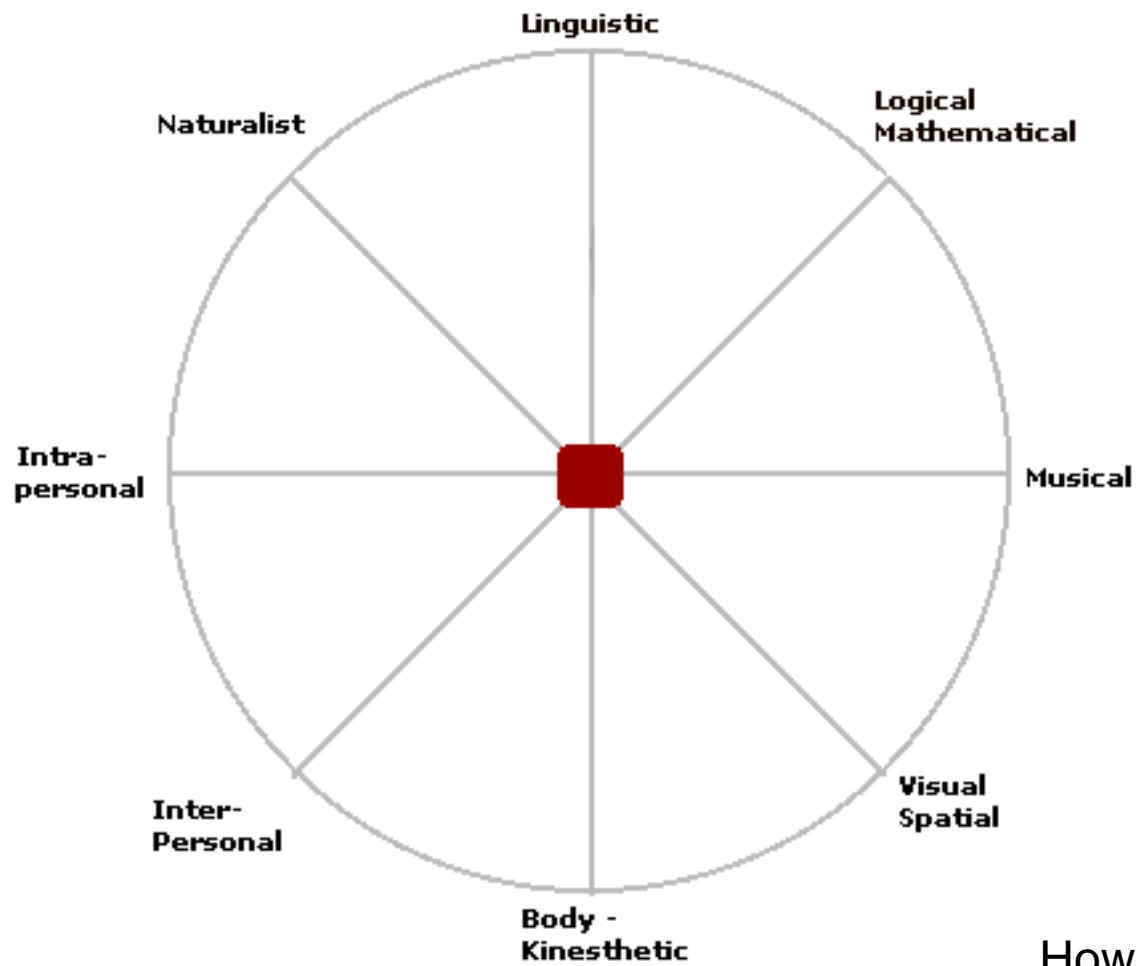
Albert Einstein

Critical Thinking

- Problem Solving
- Thinking on Your Feet

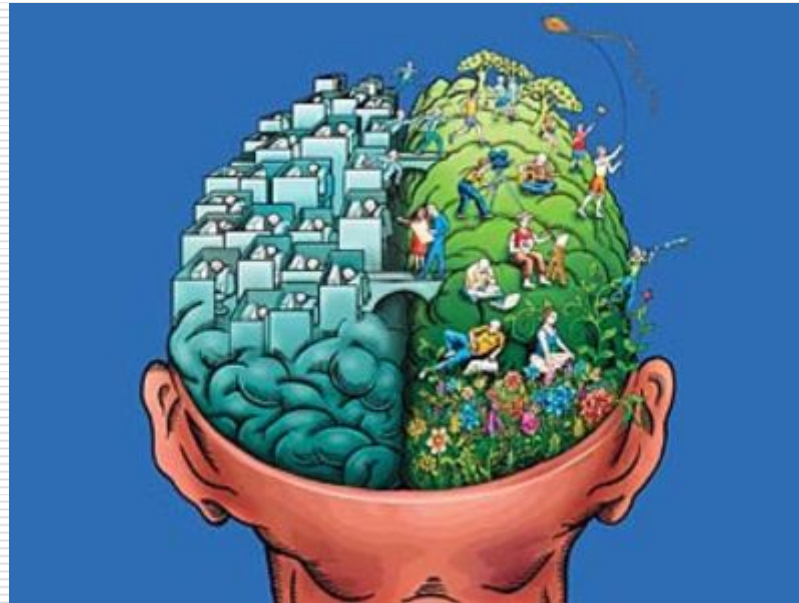
The best way to predict the future is to
create it!

Multiple Intelligence



Howard Gardner

Are you more a left-brain or right-brain thinker?



The Brain

Left Brain

- ❖ Logical
- ❖ Analytical
- ❖ Sequential
- ❖ Detailed
- ❖ Categories
- ❖ Literalness

Right Brain

- ❖ Creative
- ❖ Synthesis
- ❖ Simultaneous
- ❖ Big Picture
- ❖ Relationships
- ❖ Emotional expression

Critical Thinking and Innovation

- A new idea applied to initiating or improving a process, product or service

Thinking



Random Input/Provocation

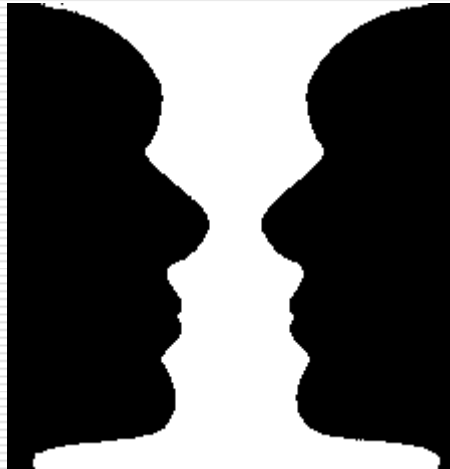
Ladder

Problem Reversal

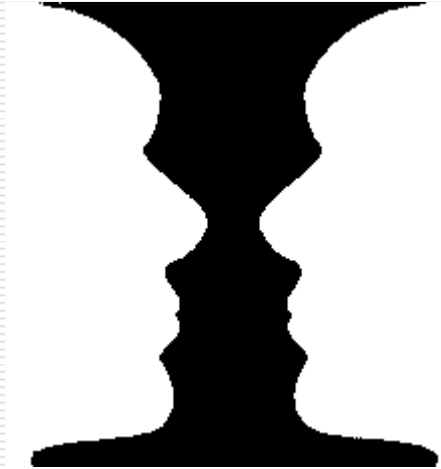
- To use this technique, you start with one of two "reverse" questions:
- Instead of asking,
 - "How do I solve or prevent this problem?" ask-
 - **"How could I possibly cause the problem?"**
- Instead of asking -
 - "How do I achieve these results?" ask,
■ **"How could I possibly achieve the opposite effect?"**

Ask Questions

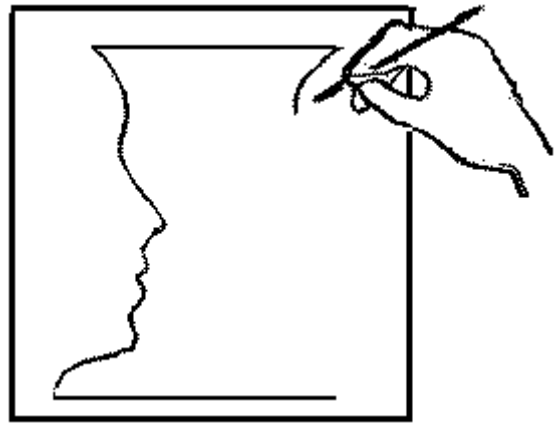
Applied Imagination



Creativity

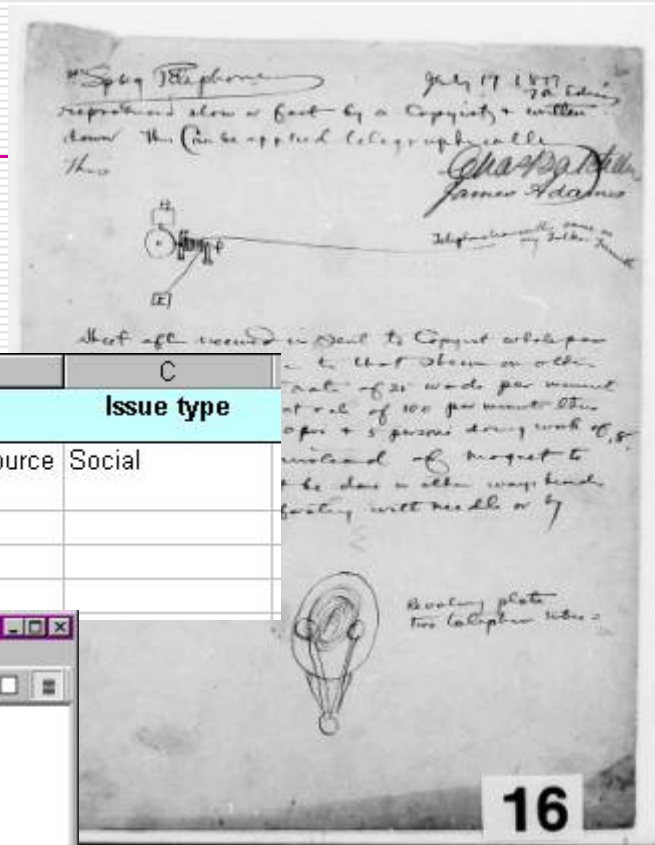


Creativity

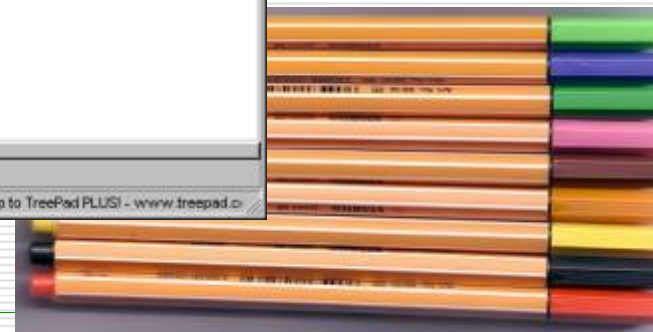
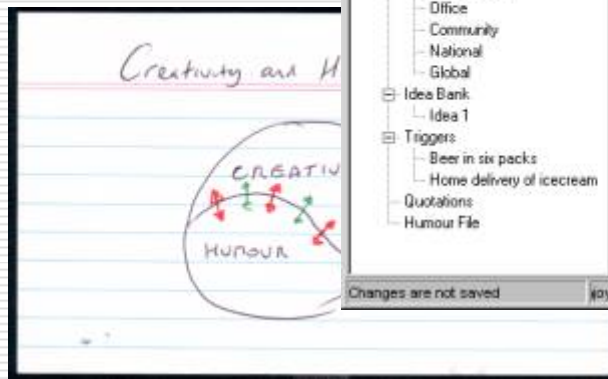
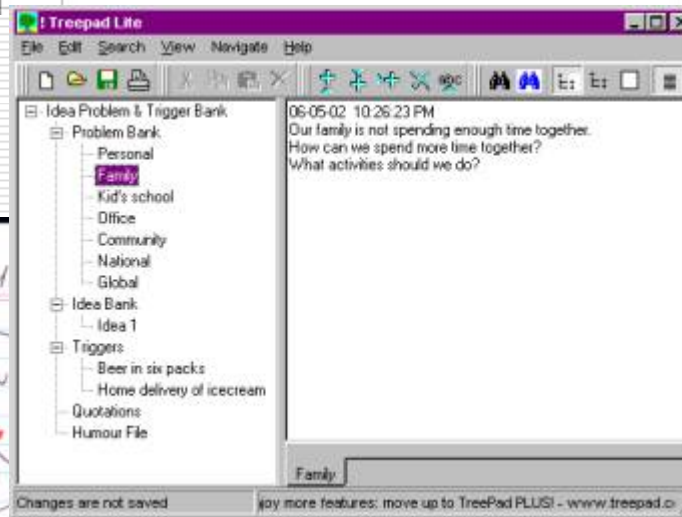


Recognising Personal Conceptual Blocks

Creativity



	A	B	C
1	No	Add New... Ideas	Issue type
2	1	How can I meet more people and build up my source of friends?	Social
3			
4			
5			



Music

Avoid

- ❑ music with lyrics. Classical, light jazz, electronic and instrumental music of various forms can work well.
- ❑ music that demands your attention
- ❑ music with large, sudden changes in amplitude.
- ❑ music with sustained tones and subtle variations.

Music

Recommendations:

- ❑ Brahms: Concerto in A Minor, Op 102
- ❑ Chopin: Piano Concerto No.1 in E Minor Op. 11
- ❑ Beethoven: Sonata No. 14 in C-Sharp Minor Op. 27
- ❑ Vivaldi: L'Estro Armonico, Op.2;
Concerto No. 5 in A Major

Creative Problem Solving Model

The total six stages are:

- Mess-finding (Objective Finding)
- Fact-finding
- Problem-Finding
- Idea-finding
- Solution finding (Idea evaluation)
- Acceptance-finding (Idea implementation)

Alex Osborne 1963

Intrapreneurs

- Individuals who engage in entrepreneurial roles inside organisations

Idea Champion

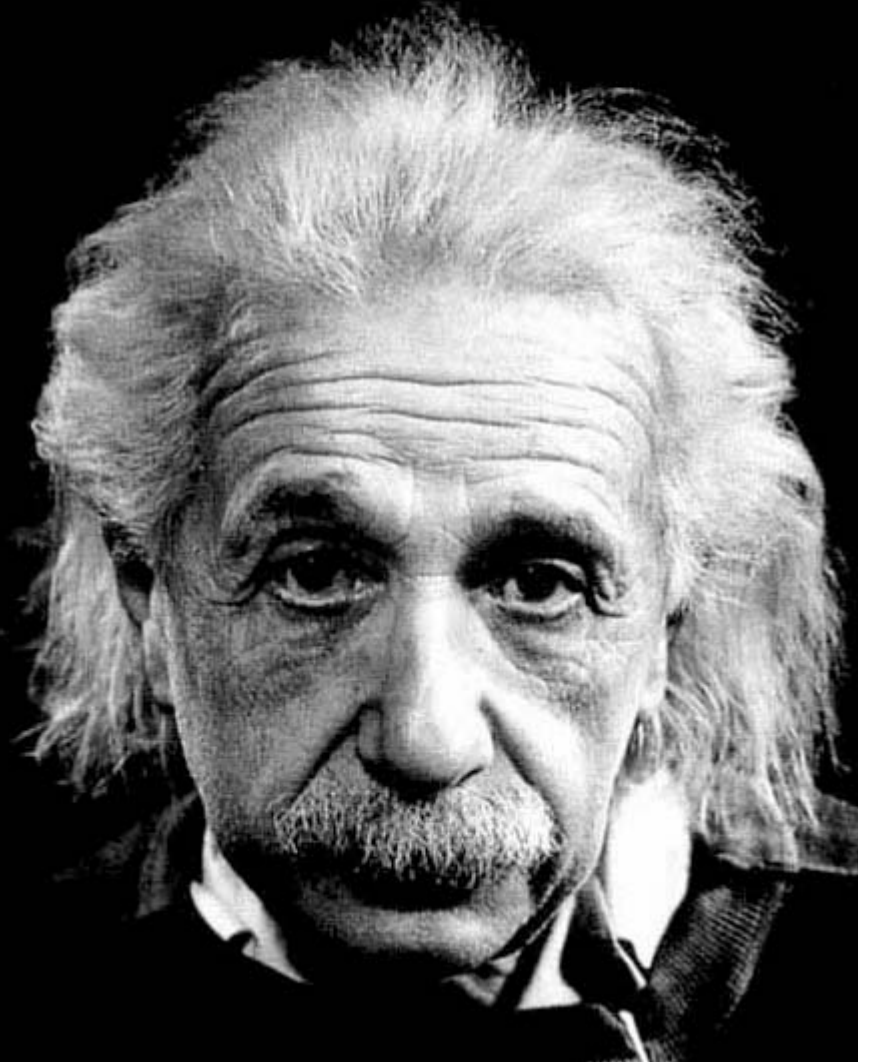
- An individual who generates a new idea or believes in the value of a new idea and supports it in the face of numerous potential obstacles.

Multidimensional Thinking

- What is our future?
- Where do we want to go?
- How can we get there?
- What information do we need?
- How can it be used?
- Why, when and where do we use it?

“Everything should be made
as simple as possible,
but not simpler.”

Albert Einstein



Critical Thinking

**Sometimes we stare so long at a
door that is closing,
that we see too late the one that is
open.**

Alexander Graham Bell



Critical Thinking

So next time you just do something because “it is the way things are done around here” –think about it –critically!!.

Must Reads

□ **Creating Minds** - Howard Gardner © 1993

Buzan's Book of Genius - Tony Buzan and Raymond Keene © 1994

Creativity - Beyond the myth of Genius - Robert Weisberg © 1992

The Great Thinkers - Edward de Bono & George Weidenfeld © 1976