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# Creative and Scientific-thinking



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## Think with me

You have a problem and you cant think of a solution.

You sit there, scratching your head, racking your Brain for answer

Nothing happens !!!!!

In fact, the harder you think, the more frustrated you get.





## Think with me

Why is it that some people seem to have an endless source of creative ideas?

You know the type-the ones who never seem stuck for cutting-edge thoughts, the ones who make heaps of money from their ideas.

How do the superstars of the business world come up with such innovative technologies and products?





And most importantly, how can you unleash your own creative potential?







## Think with me

Every person in the world has at least a kernel of creativity inside him or her. As infants we all were great inventors. **language, furniture**

So why, as we get older, does it get harder and harder to come up with really groundbreaking ideas?

The answer is sad but true.





## Think with me

We get sucked in by the constancy and stability of a life in which there are no challenges, no innovations, just doubts.

We don't push ourselves because we're afraid of the unknown-as a culture, we have a fear of failure, that's a fact.

We are in fact our own biggest obstacle to success.



## What is Creativity?

- Taking an idea and putting it into action.
- It's bringing something unprecedented into being.
- Solving a problem.
- Inventing new techniques or dreaming up innovative products or services.

Ex, an advertising executive, artist, child.



















# Creativity

- Creativity exists in all of us to some degree.
- It is the place where the individual and ideas collide.
- It's where unique inspiration and circumstance come together to yield something exciting and brand-new.
- It's a way of thinking-and living-that makes you strong, profitable , and successful!





# Creativity

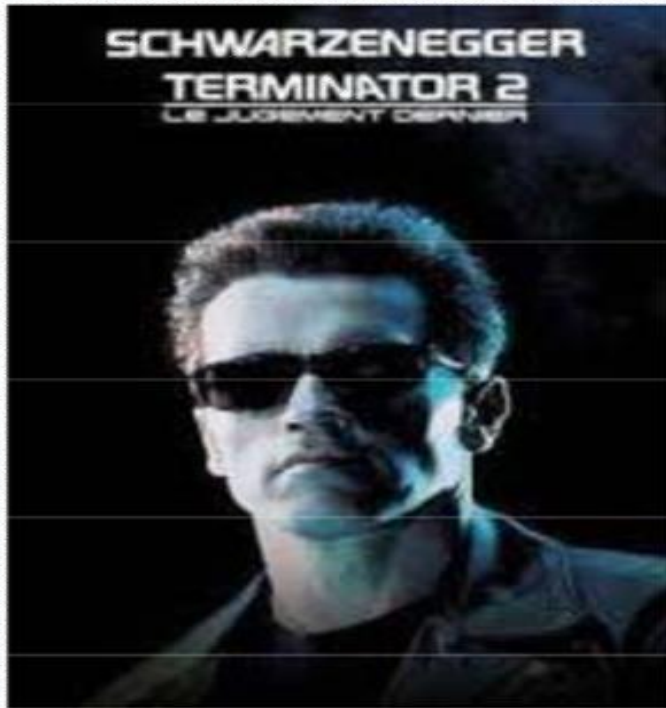
- Where does creativity really come from? It is something we are born with, or do we acquire it, like a skill?
- Creativity is like a muscle.
- The more you use it, the stronger it becomes.
- If you are lazy, your creativity will grow weak and shrivel up.





# Creativity

Bodybuilders/couch potatoes.





## Creativity

- We are creatures of habit.
- We tend to think the same things over and over again and follow the same schedule day in and day out.
- “Yes, it’s boring, but it’s easy.”
- We love to stay in our “comfort zones” because it’s simple and undemanding.
- But just as it doesn't require much energy to “coast” along, it also doesn't give us much in return.





## Course Objectives

- knowledge of concepts and practices of innovation and creative thinking.
- Creativity and sensitivity in problem identification and generating solution to it.
- Development of innovative approaches through the use of creative techniques and frameworks.
- Basic aspects of the scientific method.
- Knowledge of different reasoning techniques.



## Course Topics

- Introduction to Creative Thinking.
- Creative Thinking techniques.
- Creative Thinking and Decision making.
- Innovation.
- History of Scientific Method.
- Basic Steps in Scientific Methods.

# Module 1

## Introduction to Creative thinking





# Introduction to Creative thinking

- Identify the meaning of Intelligence and thinking.
- Distinguish between the different thinking processes.
- Identify the kinds of thinkers.





## Part 1: Intelligence & Thinking

- Introduction
- What is intelligence?
- What is thinking?
- kinds of thinkers
- Errors of thinking



# Introduction

"Study without reflection is a waste of time; Reflection without study is dangerous."

Confucius (was a thinker, political figure, educator, and founder of the confucianism which is a Chinese ethical and philosophical system )



## Introduction

- Reflection is the Key to Self-Awareness.
- Individuals were required to reflect before they could respond.
- Reflection is a critical part of doing service. It allows Individual to look back on, think critically about and learn from their service experiences.



# Introduction

## Five Stages of the Reflection Process (Perry and Albright, 1999)

- Remembering and thinking about what was experienced.
- Relating to current and prior experiences.
- Representing the experience by actively participating in service- learning.
- Reaching further into the experience by extending thinking and thinking at higher cognitive levels
- Revisiting the experience by looking at the value of the experience and exploring what else can be learned from it.





## Creative thinking

- Creative thinking is an important and vital topic in modern education.
- All educators are interested in teaching creative thinking to their students.
- There is nothing more practical than sound thinking.
- Successfully responding to such questions is the daily work of thinking.  
As a manager, leader, employee, citizen, friend or parent — in every realm and situation of your life — good thinking pays off.
- Poor thinking causes problems, wastes time and energy, causes frustration and pain.



## Creative thinking

- However, to maximize the quality of your thinking, you must learn how to become an effective "creator" of your thinking. And to become an effective creator of your thinking, you have to make learning about thinking a priority.

Use the best thinking you are capable of, We all have multiple choices > we need best information to make the best choice.



## Creative thinking

What is really going on in this or that situation? Are they trying to take advantage of me? Does so-and-so really care about me? Am I deceiving myself when I believe that . . .? What are the likely consequences of failing to. . .? If I want to do... , what is the best way to prepare for it? How can I be more successful in doing . . .? Is this my biggest problem, or do I need to focus my attention on something else?

- To maximize the quality of your thinking, you must learn how to become an effective “of your thinking” By making learning about thinking a priority.



## Creative thinking

- It's true that some people learn more easily than others,
  - It is something you either have in your genes or you don't.
  - The ability to learn can't be acquired.
- That view is wrong, there is another important factor that isn't found in people's genes, anyone can master the strategies for learning thinking and make it easier and more enjoyable.
- **Improvement in thinking**, is similar to improvement in other domains of performance where progress is a product of commitment, hard work, and practice.



## Next Session

- Intelligence
- Thinking
  - Kinds of Thinkers
  - Errors of Thinking
- Creativity



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## THANK YOU FOR WATCHING

## QUESTIONS?

