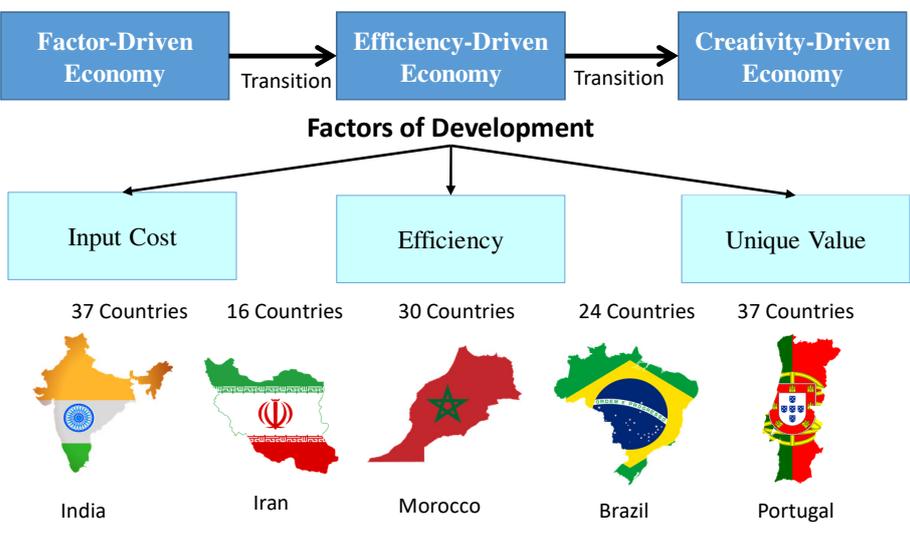




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# Stages of Development



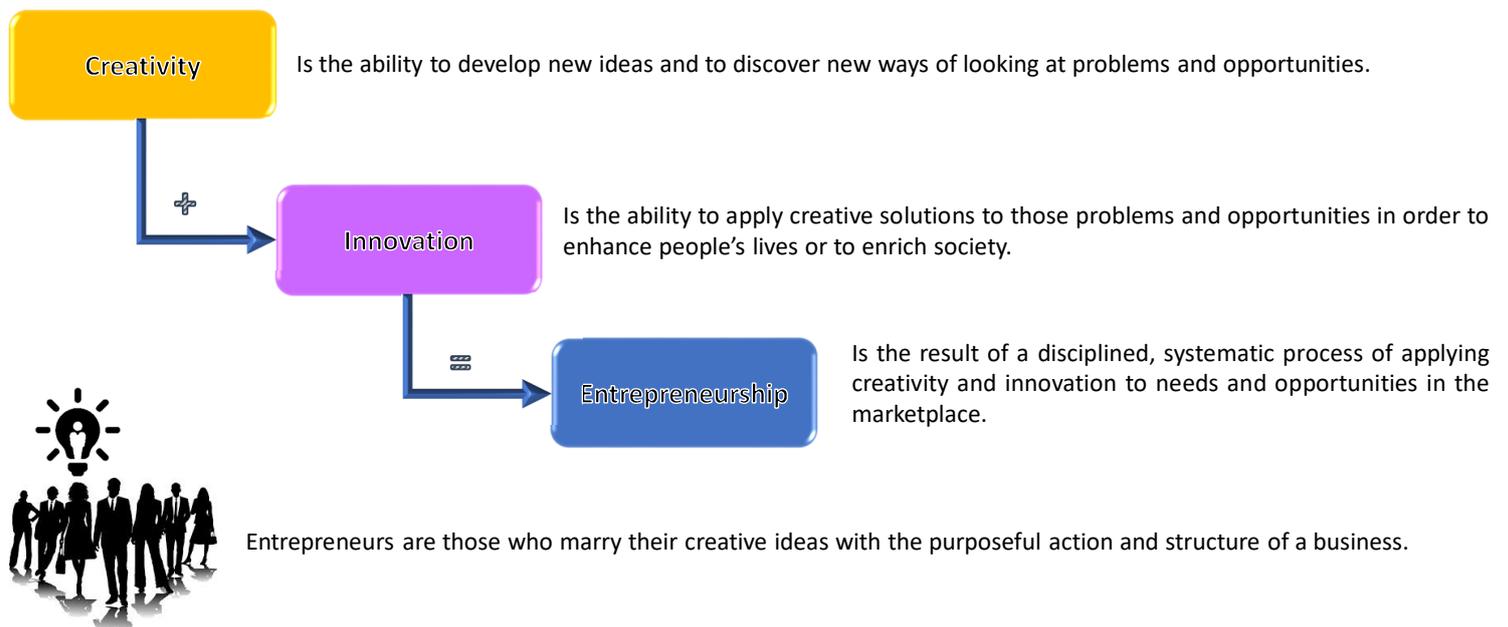
- ❑ Successful economic development is a process of successive upgrading.
- ❑ A nation's business environment evolves to support and encourage increasingly sophisticated and productive ways of competing by firms based there.
- ❑ This process can be described as a sequence of stages, each with a different set of economic characteristics and challenges. Michael E. Porter (2002) has provided a modern interpretation of economic development by identifying three stages of development:
  - **Factor-Driven Stage**  
A factor-driven stage, is marked by high rates of agricultural self-employment and countries in this stage compete through low cost efficiencies in the production of commodities or low value-added products.
  - **Efficiency-Driven Stage**  
An efficiency-driven (Investment-driven) stage, is distinct by decreasing rates of self-employment and countries must have efficient productive practices in large markets, which allow companies to exploit economies of scale;
  - **Creativity-Driven Stage**  
An creativity-driven stage, where it is based towards high value added industries in which entrepreneurial activity is important.

# Sustainable Development and creativity

- A growing body of evidence shows that the Cultural and Creative Industries (CCIs) are sources of growth and jobs, entrepreneurship, benefiting local communities, regions and states.
- More than 7m Europeans are directly or indirectly employed in creative and cultural activities — 3.3% of the EU’s active population.
- Cultural and creative industries contribute up to 10% of the GDP in some developing countries and generate about 30 million jobs worldwide, employing more people aged 15-29 than any other sector - that’s why it’s important to invest in creativity (UNESCO).



## Creativity , Innovation and Entrepreneurship



# WHAT IS CREATIVITY?

Creativity is what happens when an individual produces something that is:

Novel as well as

**Appropriate,**

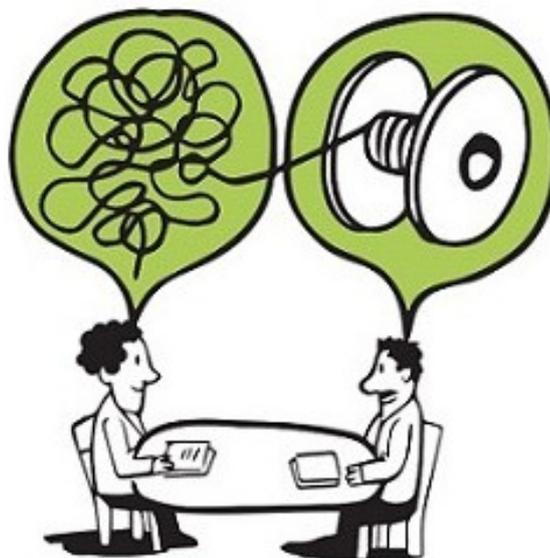
**Generative** or

**Influential.**



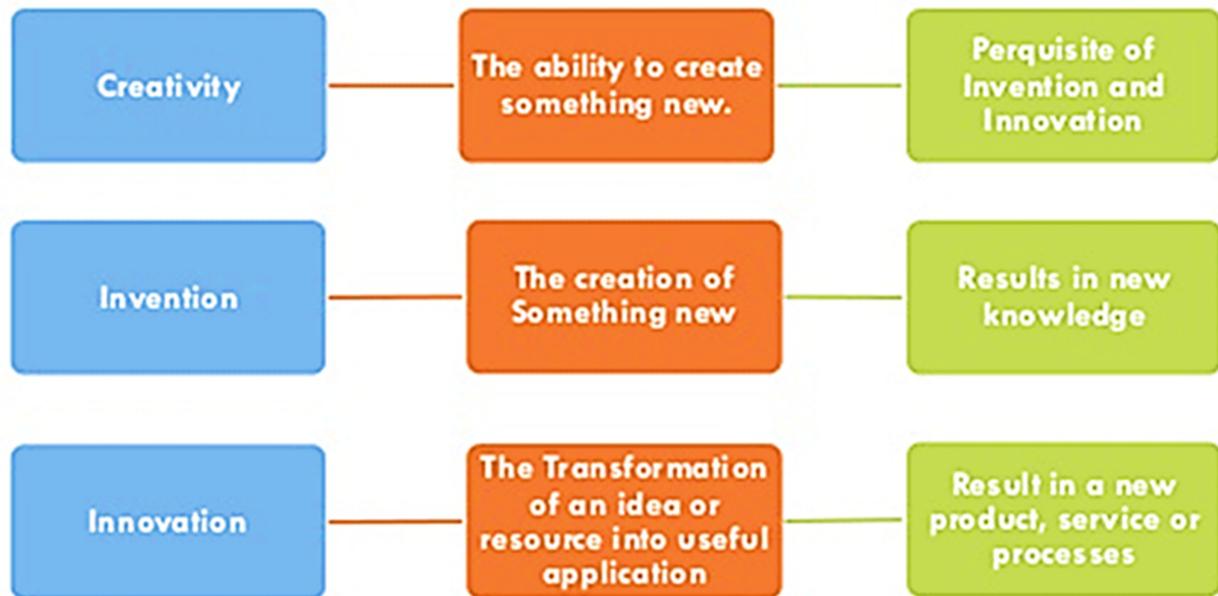
## *Creativity Vs Innovation*

Think Up New Idea  
(Input)



Put Into Action  
(Output)

# The Distinction Between Creativity, Invention and Innovation



## MODELS OF CREATIVITY

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**Psycho-dynamic** Models of Creativity

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**Personality** Models of Creativity

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**Psycho-metric** Model of Creativity

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**Problem Solving** Models of Creativity

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**Constraint** Models of Creativity

# Psycho-dynamic Models of Creativity

- Creativity is an **unconscious process**.
- Creativity involves processes happening of which the individual is **unaware**.
- The unconscious mind allowed for creativity because it was thought to be **less rigid** and **less specialized** than the conscious mind.
- Many people find this models of creativity unsettling because they give very **little credit to the creative individual**.



## Psycho-dynamic Models of Creativity Arthur Koestler's Bisociation Theory

- **Bisociation Theory** of Creativity relies on the **unconscious**.
- Based on Bisociation Theory solving a problem involves combining thoughts and creative problem solving involves joining novel combinations.
- Bisociation is the term that used for the process by which previously unrelated thoughts are brought together and combined in new ways.
- Koestler also stresses the importance of **dreams** in creative thinking.
- For him, the dream state is the ultimate unconscious .





## Psycho-dynamic Models of Creativity

### Sarnoff Mednick's Association Model of Creativity

- Sarnoff Mednick considered much of the creative process to be **outside of the immediate control** of the individual.
- Creative thinking is the **process of forming associative elements** into **new combinations** which are in some way **useful**.
- The **more mutually remote** these **associative elements** were, the more creative the process or solution.
- These remote associative elements were brought together by the unconscious through serendipity, similarity or mediation.
- Mednick does give **some credit to the individual** because he explains that the organization of an individual's associations will influence the probability and speed of attaining a creative solution.

## Psycho-dynamic Models of Creativity

### Gastaltist View of Creativity

- Creative thinking entailed going beyond one's past experiences to experience every new problem as an independent experience.
- Relying on **past experiences** to solve a new problem **rarely works** because the individual gets stuck in **familiar and non-productive modes of thinking**.
- The key to **finding a creative or correct solution** to a problem was simply *the ability to see the problem in the correct way*.
- The brain will **spontaneously restructure a problem** so that the individual can **perceive it correctly**.
- This happens outside of the control of the individual and is largely unconscious.
- Once the **problem is correctly perceived** by the individual, **the solution quickly becomes apparent**.



# Personality Models of Creativity

- The Personality Models of Creativity place much more emphasis on the **role the individual** plays throughout the creative process.
- **Dennis Garlick** purports that different in individual brains account for different in an individual's ability to process information.
- The **ability of brain to change in response to the environment** is called **Neural Plasticity**.
- **People with higher level of Neural Plasticity can have higher level of creativity.**
- Many people find this models of creativity oppressive because they give **little credit to the thought base creativity.**



## Psycho-metric Model of Creativity

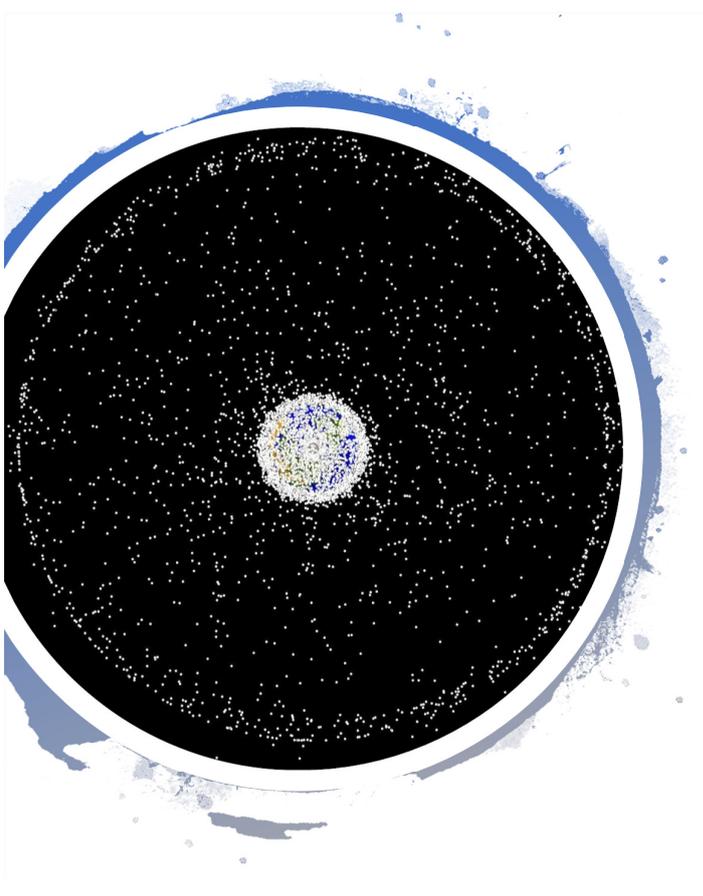
- Creativity is something that **can be taught**.
- Creativity is a matter of **Divergent thinking, Non-Rational and Free Association Thinking**, which can be **facilitated by brainstorming** and **followed by convergent thinking** to produce creative solutions or ideas.
- Once the brainstorming has taken place and all of the ideas are on the table, the individual can turn to their convergent thinking skills, their rational thinking abilities, to sift through the possibilities to find one that works.

# Psycho-metric Model of Creativity



- Creative problem solving, or creativity, involves three main stages:
  - **Considering the problem**
  - **Thinking of possible solutions**
  - **Testing or evaluation those solutions to determine whether they are useful or not.**
- Divergent thinking, which again is non-rational free association thinking, will allow an individual to find a creative solution to the problem he or she is facing.
- Divergent thinking requires :
  - **Fluency** : There is high probability that the individual will produce a significant idea.
  - **Flexibility** : The individual will produce a variety of significant ideas that pull information from different knowledge
  - **Originality** : The individual will produce ideas that are statistically uncommon.

## Problem Solving Models of Creativity

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- Creativity involves **finding novel solutions** to **problem**.
  - All searches for these novel solutions take place in a **problem space**.
  - The problem space consists of the:
    - Initial state
    - Search space
    - Goal state
  - There exist two types of problems:
    - Well structured problems
    - Ill-structured problems
  - While a well structured problem is easy to solve, there is very little room for creativity.
  - An ill structured problem is the opposite of a well structured problem, providing an individual with little guidance but much room for creativity.
  - According to Weisberg, creative problem solving is a **gradual development** from **initial knowledge** to a **final goal state**.

# Constraint Models of Creativity

- Creativity is an **activity** in **creative problem solving**.
- Walter R. Reitman, argues that incremental problem solving technique is a matter of **constraints**.
- The attributes defining the original description of the problem can be viewed as the initial constraints within which the individual must work to reach his or her final solution.
- **Externally imposed** and **self-imposed constraints** help the individual to reach a creative solution **by narrowing the search space** and **guiding** him or her **towards the goal state**.

## Being Creative Guideline





## STEP 1: Opportunity or Problem Recognition

Discovering a new opportunity exist or a problem needs resolution.



## STEP 2: Immersion

Concentrating on the problem and becomes immersed in it.

## STEP 3: Constraints

Discovering and determining the constraints of the problem.

The problem must be represented as a set of constraints such that the solutions of the constraints in the structure are the solution of the problem.

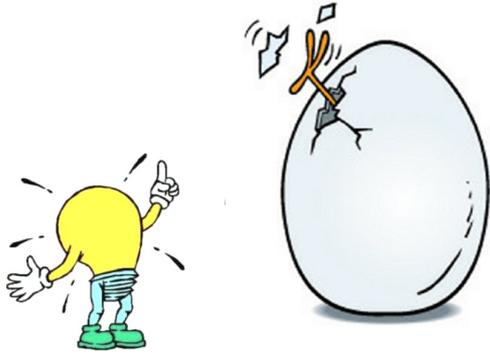


## STEP 4: Possible solutions

Recalling and collecting information that seems relevant, dreaming up alternatives without refining or evaluating them.



## STEP 5: Incubation



Keeping the assembled information in mind for a while. Does not appear to be working on the problem actively; however, the subconscious mind is still engaged. While the information is simmering it is being arranged into meaningful new patterns.

## STEP 6: Insight



The problem- conquering solution flashes into the mind at an unexpected time, such as on the verge of sleep, during shower, or while you playing video game.

Insight is also called the Aha! Or Eureka Experience.

## STEP 7: Verification and Application



The individual sets out to prove that the creative solution has merit.

Verification procedures include gathering supporting evidence, using logical persuasion, and experimenting with new ideas.

## Personality Traits which Support Creativity



- Persistence
- Self-confidence
- Independence
- Attraction to complexity
- Tolerance of ambiguity
- Intuitiveness
- Have broad Interests
- Are energetic
- Drive to achieve
- Love his/her work
- Take risk

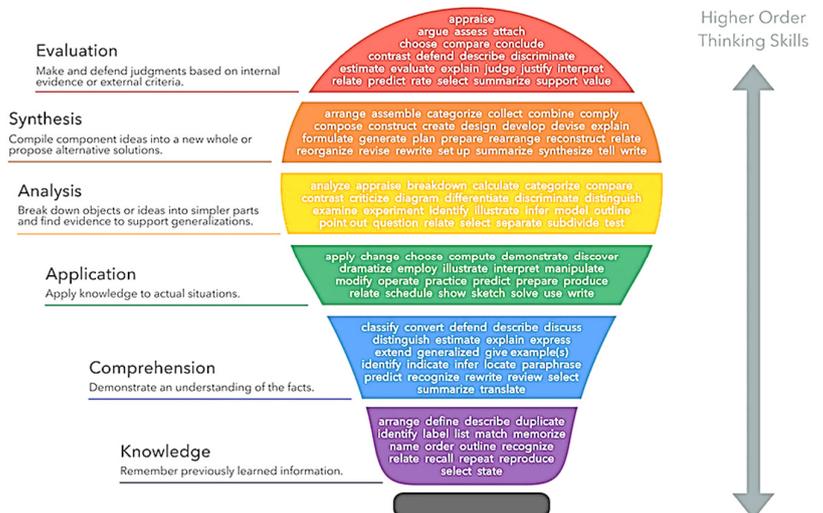
# Barriers to Creativity

- Excessive focus on extrinsic motivation
- Limits set by superiors
- Critical evaluation
- Close, controlling supervision
- Competition in a win-lose situation
- Control of decision making
- Control of information
- Blindly following the rules
- Constantly being practical
- Becoming overly specialized
- Fearing looking foolish
- Fearing mistakes and failure



## Work 4: Creativity

For each "Being Creative Guideline" step write a synthesis between 300 to 500 words.



Delivering Deadline: 14/03/2019  
 Sending to : [Sanaznik@uninova.pt](mailto:Sanaznik@uninova.pt)