

# **CREATIVITY AND INNOVATIONS**

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### DEFINITION

More than 100 different definitions +26

Creativity is the ability to produce the work which is both novel (i.e., original, unexpected) and appropriate (i.e., useful, adaptive to the task constraints) by Robert J. Sternberg

Creativity can be viewed at both personal and societal levels.



© 2002, Center for Creative Learning. Source: Assessing creativity: A guide for educators

# $C_{\text{ATEGORIES}} \text{ OF PERSONAL CREATIVITY}$

*Generating Ideas* include Fluency, Flexibility, Originality, Elaboration, and Metaphorical Thinking

- Fluency refers to quantity or the ability to generate a large number of ideas. Quantity gives opportunity for quality;
- Flexibility refers to the ability to shift the direction of one's thinking or to change one's point of view.
- Originality deals with generating options that are unusual or statistically infrequent (i.e., ideas that few people in any group might offer).
- Elaboration refers to the ability to add details and to expand ideas;
- Metaphorical thinking refers to the ability to use comparison or analogy to make new connections.

## CATEGORIES OF PERSONAL CREATIVITY

#### Digging Deeper Into Ideas

 This include Analyzing, Synthesizing, Reorganizing or redefining, Evaluating, Seeing relationships, Desiring to resolve ambiguity or bringing order to disorder, and Preferring complexity or understanding complexity.

#### **Openness and Courage to Explore Ideas**

 This include Problem sensitivity, Aesthetic sensitivity, Curiosity, Sense of humour, Playfulness, Fantasy and imagination, Risk-taking, Tolerance for ambiguity, Tenacity, Openness to experience, Emotional sensitivity, Adaptability, Intuition, Willingness to grow, Unwillingness to accept authoritarian assertions without critical examination.

## CATEGORIES OF PERSONAL CREATIVITY

The listening to one's "inner voice"

- This category includes traits that involve a personal understanding of who you are, a vision of where you want to go, and a commitment to do whatever it takes to get there.
- The characteristics for this category that we refer to as *Listening to One's "Inner Voice"* include Awareness of creativeness, Persistence or perseverance, Self-direction, Internal locus of control, Introspection, Freedom from stereotyping, Concentration, Energy, and Work ethic.

### THREE COMPONENTS OF CREATIVITY



Teresa M. Amabile © 2006, National Centre on Education and the Economy

## WHERE DOES IT COME FROM?

- **Knowledge** all the relevant understanding an individual brings to bare a creative effort
- Creative thinking relates to how people approach problems and depends on personality thinking/working style
- Motivation is generally accepted as a key to creative production and the most important motivations are intrinsic passion and interest in work itself

### PERSONAL CREATIVE PROCESS

Creative process involves four stages:

- preparation analysis of the problem and initial conscious work on the task;
- incubation active unconscious work on the problem;
- illumination occurs when suddenly a promising idea becomes consciously available;
- verification the creative idea is evaluated, developed and refined;

# CREATIVE PRODUCTIVITY

Creative productivity arises from interactions of:

- Characteristics
- Operations involve the strategies and techniques people employ to generate and analyze ideas, solve problems, make decisions, and manage their thinking.
- Context includes the culture, the climate, the situational dynamics such as communication and collaboration and the physical environment in which one is operating.
- Outcomes are the products and ideas that result from people's efforts.

Donald J. Treffinger. Centre for Creative learning. COCO model

#### What contributes to Creative productivity



#### Within their Context

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# SOURCES OF CREATIVITY

- Motivating people;
- Removing fears to make a mistake or failure;
- Reducing controls and frames;
- Let to evaluate the process of one's work;
- Allowing opportunity for choice;
- Using project based approach;