TYPES AND FORMS OF CREATIVITY

It is well known that creativity is manifested in various forms of human activity. For this reason, creativity has always had a specific character. Some authors believe that there exist as many forms of creativity as there are distinct occupations, as well as many aspects as the human nature has. It is easy to guess how the mechanism of structuring the creativity forms works as every creative potential needs to take some specific form to become concrete. Following this idea we should establish the forms and the types of creativity. A consequent analysis of referential literature which treats forms of creativity has been done.

Creativity *is seen as a set of specific intellectual skills*, integrated in a unitary intellectual structure defined on three dimensions: *individuality*, *content* processed by intellectual processes and the *products* of such processing. The specific continuity that features it is a divergent thinking, seen by the diversity of orientation of sequences of operations, seeking different solutions to problems. The phrase is used by J.P. Guilford by analogy with the concept of imagination. Variants of processing knowledge progress on the direct-indirect cognition dimension, in the following sequence: perceptual knowledge → storing → convergent thinking→ divergent thinking → evaluation.

Treating every criteria of classification separately it can identify different forms of creativity. According to criteria: the subject potential and abilities we may distinguish: *mental creativity*, *practical / praxiological creativity*; the creating aspect – *individual creativity, group creativity*; the domain in which creativity manifests – *scientific creativity, technical creativity (technological creativity, technico-technological creativity), artistic creativity*; the creative process approach – *spontaneous (inspired) creativity, stimulated (organized) creativity*; the performance – *scientific, technical, technological, economic, literary, socio-political, sports, creative - performing, pedagogical (educational), managerial, etc.*; to which social category the subject belongs – *pupil creativity, student creativity, teacher creativity, engineer creativity, etc.*; the biological factor – *adult creativity, teenager creativity, pre-adolescent creativity, pre-school creativity, ante preschool creativity*.

The explanation of the process of creation is based on psychoanalytical concepts pointed out by S. Freud, A. Adler and K.G. Jung. Thus, in order to explain the process of creation to students we resort to the fundamental principles issued by S. Freud:

1. *Psychic Determinism*: there exist in psychological acts relations of causality, interdependence, continuity; random psychological acts do not exist

2. *The Unconscious*: it has major importance for the mental activity. It is governed by certain laws; between the conscious and the unconscious there is a barrier which is called censure, acting as a filter.

3. *Motivation*: human behavior is always driven by motivation: any act, expression, action has a logical significance, and is grounded on hidden motivation on the unconscious level.

4. *Evolution of the individuality*: the character is born out of *pregenital pulses*, and develops under social pressure, capable of changing its object.

K.G. Jung's research in determining the individuality structure has acquired special significance in explaining the developing of students' creative abilities within the process of technological creativity.

In K.G. Jung's opinion the individuality structure includes: the psyche; the consciousness of the Self; the personal unconsciousness which includes various complexes; interactions between individuality structures; individuality dynamics and development; psychological types; the place of symbols and dreams in the individuality structure.

The consciousness of the Self, the personal and the collective unconsciousness manifest in an especial way within the creative process. *The consciousness* is that part of the brain which can be known by the individual through its four basic mental functions: thinking, affections, sensitiveness, and intuition. The prevailing of one of the functions will stamp the individual character with some specific qualities: thoughtfulness, sentimentality, sensitiveness, or intuition. *The personal unconsciousness* is that part of the individual which stores from one's birth all personal and conflict experiences, moral problems, the unsettled ones, the ones which seem to have little importance, everything that is sensed, thought, felt, and forgotten. The irrational includes the psychological functions of the major importance for the creative process, such as *intuition, feeling, and occurrence*.

The intelligence pattern – a fundamental ability of the creator. It is necessary to identify the peculiarities of the creative people. Two categories of factors can be distinguished within the human abilities context, a general factor – which participates in performing all activities, and numerous special factors – which correspond only to concrete conditions of one form of activity

(engineering, pedagogy, artistic, managerial, etc.), it is considered that creative people possess intelligence and specific thinking.

Intelligence is a complex phenomenon and therefore its defining is difficult. Definitions made so far have not yet met a unanimous acceptance. However, *intelligence* can be defined as *a general cognitive function*, *based on abstraction, pattern construction and problem solving*. In our research *intelligence* is treated as the *general ability to solve problems optimally that is the ability to meet all obligations that require some adjustment capability, and a spirit of observation and logical deduction*, etc.

Basic functions of the intelligence are: *abstract thinking, mathematical skills, verbal expression, ability to diagnose and resolve memory and creativity*. Thurstone established the following *factors of intelligence*: *reasoning (deductive and inductive), memorizing, capacity, perceptual quickness, spatial operation, understanding of words and verbal fluency*. Intelligence can be assessed. Empirically it can be evaluated by: learning efficiency, ease and depth of understanding, difficulty and novelty of the issues which the subject is able to solve. The best-known parameter for determining the level of creativity is intelligence quotient IQ (measured in points), which differs from person to person. Research shows that the vast majority of people (except those who have a pronounced degree of debility) possess creative skills. Statistical surveys have shown that IQ – ranges in average between the extremes of 60 and 140 with the majority placed between 90 and 110.

One of the great issues of intelligence is related to the factors that determine it fundamentally. *Is intelligence innate, congenital or acquired?* Some specialists established that human *intelligence* is a quantitative aspect, which has *a double determination - genetic* and *environmental*. According to these theories, the man is born with a certain *potential* intellectual genotype, whose realization depends on the environment, favorable or unfavorable. Intelligence is genetically determined in the ratio of 60…70%, the environment having a 30-40% of influence.

It is to be accounted that measured intelligence increased up to 15 points from one generation to another. It can not be explained by the increase of the „*informational*" bombing upon subjects, or it can not be explained essentially from this point of view.

Age has also an influence on intelligence, research and innovation. There are views and the assumption that scientists have produced their best works at the age between 30 and 40 years. Most important discoveries were made at the age between 30 and 70 years, although the maximum number of major work was done at the age of 45-50 years.

The sequencing pattern of the creative process. The first phasing of the creative process belongs to J.Wallas and differentiates four phases: preparation, incubation, illumination/inspiration, evaluation. *Preparation* is a phase which preponderantly takes place at the level of conscious structures and lies in successive definitions and redefinitions of the problem, as well as in organized and consequent data collecting which may lead to finding a solution.

Incubation, the most controversial phase of creation, takes place preponderantly at the level of the unconscious structures, where spontaneous, unconscious processing of problem data take place, as well as of information which was collected consciously in order to solve it in terms of a certain criteria.

Illumination represents the moment of growing aware of a relation, more or less expected, between the problem data and a certain informational structure, which results from conscious and unconscious data processing, simultaneous and consecutive.

Evaluation consists in conscious examining of the ways of equilibrating the informational corpus *problem* with the informational corpus *solution* in one or more concrete situations.

Alongside with the creativity patterns based on the process, specialty literature proposes patterns of creativity as a product.

The hierarchy pattern of creative plans. Analysis of definitions and approaching creativity vertically claim examining the idea that *all persons are potential creators to some extent* and the idea that there exist several levels of structuring creativity. These ideas allowed Irving A. Taylor to develop, a pattern which may be considered operational enough to evaluate creative products of different levels of complexity. I. A. Taylor describes five different creativity plans, in hierarchal succession: *expressive creativity plan*; *productive creativity plan*; *inventive creativity plan*; *innovative creativity plan*; *emergency creativity plan*.

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