THE CONCEPT OF CREATIVITY AND THE CONNECTION BETWEEN CREATIVE THINKING AND CREATIVE PROBLEM SOLVING

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Introduction. Creativity is widespread in the international scientific world. Moreover, the notion of creativity is equivocal. We can state the fact that the concept of creativity can scarcely admit that we all lend an ordinary constructive understanding of creativity. Although, there is documentation that conceptions of creativity contrast among societies, cultures, and people [1].

Definitions of creativity are not unequivocal, and many psychologists have come up with the debate about what represents creativity, often vehemently arguing different views. However, most researchers agree that the creative process involves a number of perspectives, most commonly in:

Table 1

Perspectives on creativity

Imagination	**Originality**	**Productivity**	**Problem solving**	**Individuality value-added**
the ability of ***creation***	the ability to come up with *ideas* and *products* that are ***new*** and ***unusual***	the ability to generate a *variety* of ***different ideas*** through ***divergent thinking***	application of ***knowledge*** and ***imagination*** to a given *situation*	the ability to produce an *outcome* of ***value*** and ***worth***

The major part of definitions of creativity contradicts to some extent because scientists are trying to explain creativity as a universal human-specific feature or to spotlight what exactly model greatly creative children so distinctive and varied from others [2, p. 5-6].

Approaches to the creative thinking and creative problem solving. The literature in the field of creativity advances various

aspects to creativity, for example, creative thinking and creative problem solving.

In contrast to psychometric studies on creativity, work on creative thinking labels the creative process itself. Psychological works analyze thought processes leading to new ideas, to unexpected insights, or to representational reconstruction. As an alternative to taking creativity as a feature coming gradually, creativity is considered here as a vital property of human thinking in general. Likely, the human being's mind is capable of production and so are its products [3, p. 5].

In the following lines we present Wallas' famous four-step model of creative thinking, which include: a) Preparation; b) Incubation;

c) Illumination; d) Verification.

The pattern also is inclined to conceal the extensive temporal structure of the creative process with its various temporal layers and nested levels. Therefore, Wallas' four-stage pattern is linear [4, p. 28].

The label of any creative process, the one concept that differentiates creative thinking from everyday thinking is the strong balance of *divergent* and *convergent thinking.*

We define *divergent thinking* as a *comprehensive quest for many different and original alternatives*. This is why Ruggiero named the *production phase*. When engaged in divergent thinking, our minds reach to explore and nurture all possible options without evaluating them, prepared to be unshrinking and to discover novel potential beyond the familiar and the known.

Also, we define *convergent thinking* as a *focused and positive evaluation of original alternatives*. This is why Ruggiero named the *judgment phase*. It represents an analytical type of thinking, conducted by the need to make real sense and to bring order. After exploring all potentials, our mind begins to select, screen, prioritize, organize, and clarify what it has found.

In creative thinking, we deliberately separate these two forms of thinking into a dynamic balance of first one, then the other. This balance is the kernel of strong creative thinking [5, p. 51].

The more universal problem-solving specialized literature shows a concern with the first aspect of a given response, as the solution to the

given problem. Indeed, it would scarcely make sense to most searchings to manage the same problem frequently, since the subject is problem solving, and for sure once a problem is solved it drops out its status as a problem [6, p. 197].

Creative problem solving (CPS) represents a coherent process that requires breaking down a problem to understand it, generating ideas at the same time to solve the problem, and evaluating those ideas to find the most efficacious solutions. Highly creative children tend to follow this process in their little heads, without thinking so much about it. Less naturally creative children just have to learn to use this very simple process [7]. However, there are numerous different approaches to CPS.

On the whole, Piaget was more interested in the growth of the child's understanding than in the child's problem solving. Of course, observing the child from primary school solve problems represents one important gap to its entirely understanding. But actually observing and analyzing the process of problem solving is quite a recent interest in education [8].

Although creative problem solving existed from the time when humans have been thinking creatively and solving problems. Firstly, it was first formalized as a process by Alex Osborn, who invented traditional brainstorming, and Sidney Parnes. Their Creative Problem Solving Process (CPSP) has been taught at the International Center for Studies in Creativity at Buffalo College in Buffalo, New York since the 1950s. Baumgartner's creative problem solving (CPS) is more focused on novelty, innovation and it involves afterward, seven straightforward steps, like in the above table.

Table 2

CPS Steps

I	**II**	**III**	**IV**	**V**	**VI**	**VII**
Clarify and identify the problem	*Research the problem*	*Formulate creative challenges*	*Generate ideas*	*Combine and evaluate the ideas*	*Draw up an action plan*	*Do it! (implement the ideas)*

That said, CPS is a conceptually simple process, but essential to any novel process. If you do not use it already, you can familiarize your children from primary school with the process and start using it [9].

Conclusions. Therefore, creativity involves not only stimulating the individual but also affecting his social connections. If those around the creating child do not value creativity, if they do not provide the essential supportive environment, if they do not embrace the creative work when it is finished, then it is likely that the creative child's struggles will encounter numerous barriers.

It is necessary to keep in mind not only the creating individual but also the direct and indirect effects in the society that affect him/her since creativity is a process, and creative thinkind alongside the creative problem solving represents such important important concepts in the progressionm of the education.

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