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Teachers Inspiring Lifelong Learning

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supplementary research material

GENERATE A CREATIVE LEARNING ENVIRONMENT

edited by Alessia Cadamuro & the Unimore team

University of Modena and Reggio Emilia, Dept. of Education and Humanities

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Creativity as problem solving

A problem is a situation that induces the subject to a research activity, consisting in moving from an initial state (problem) to an end point (solution), going through a sort of “problem space”. There is an "imbalance" between the initial and final state.

The definition of "problem situation" also includes the fact that the solution is, at least potentially, reachable by intellectual means.

The difficulty of a problem depends on the greater or lesser "availability“ of the elements of the situation: there are well-defined problems (the objective is specified) and poorly defined (in which the end point is undetermined).

In some problems the method may be known, but not the solution, which must be found by correctly applying a set of rules.

In others, the solution may be known, but not the method, and it is necessary to find out how to reach it.

The insight

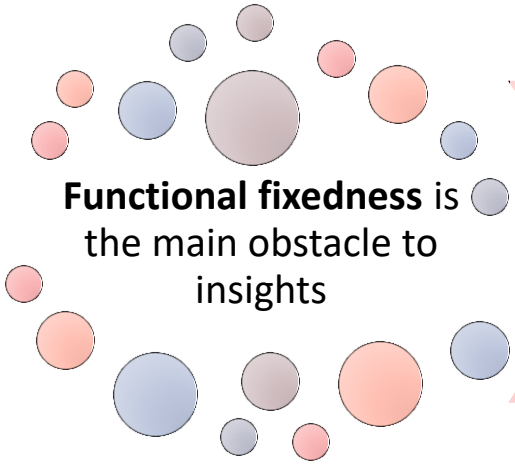
For the Gestalt approach, solving a problem essentially means "transforming" the structure, "catching" new and significant relationships between the constituent elements.

Insight literally means "see inside“, an illumination that the subject experiences when the solution appears all of a sudden.

The insight is not the cause or the force that leads to restructuring, but, on the contrary, it is the consequence: due to the restructuring, the situation becomes transparent.

Therefore, the insight accompanies but does not produce the solution.

The insight enemy



Functional fixedness is the main obstacle to insights

It refers to sticking to a particular strategy or function of an object.

The factors that facilitate problem solving are:

- **transfer by analogy**: see common traits between 2 problems
- **incubation**: set aside the problem for a certain period (minimizing the effect of negative transfer)
- **expertise**: the advantage of being able to reduce the information load due to automatization

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Stimulating the insight

Divide the problem into smaller problems.

Consider the problem from different points of view. This is facilitated by working in groups and sharing ideas.

Represent the words of the problem in a diagram or in a drawing.

Work backwards if no traditional way is available/effective.

When the problem is solved, think again to reinforce the "new" method that was "invented".

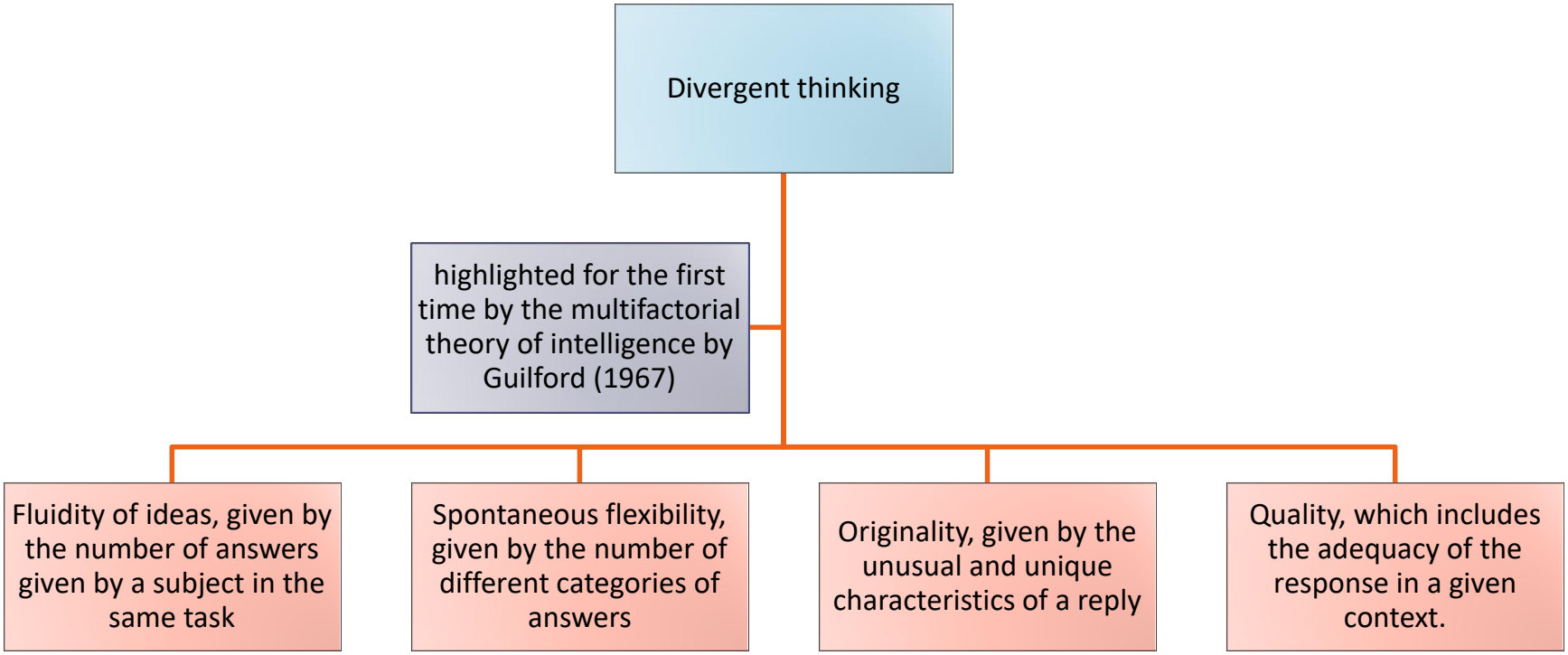
Creativity as divergent thinking

Do schools kill creativity? | Sir Ken Robinson

https://www.youtube.com/watch?v=iG9CE55wbtY

It supports the idea that teaching is not only providing the correct answer, but also coming up with new ideas, new ways to do things, new concepts.

Creativity as divergent thinking



How to foster creativity in classrooms?

Create a classroom that recognizes creativity.

Use the most effective strategies, e.g., creative arts, media-oriented programs, or programs that incorporate cognitive and emotional functioning.

Think of creativity as a skill.

Participate in or create a program to develop creative skills.

Use emotional connections. Research suggests that the best creativity instruction ties in the emotions of the learner.

Want to know more?

Check these papers and assessment tools on our website!

1. http://www.till.org.uk/wp-content/uploads/2019/03/CTI-PALANIAPPAN.pdf
2. http://www.till.org.uk/wp-content/uploads/2019/03/Teachers-creativity-nurturing-behaviour-Sharma-Sharma-2018.pdf
3. http://www.till.org.uk/wp-content/uploads/2019/03/Teaching-for-Creativity-Scales-Rubenstein-McCoach-Del-Siegle-2013.pdf

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