



# Graduate Student Unlocks Truth!!!

The Art of Solving Problems: Comparing the Similarities and Differences Between CPS, Synectics and Lateral Thinking

- A Master's Project By David González



## Project Purpose

**PURPOSE:** Compare the similarities and differences of the Creative Problem Solving (CPS), Lateral Thinking and Synectics creative problem solving methods against focused dimensions of analysis.

Dimensions =

<b>Philosophical</b>	—	Logical analysis of the assumptions, beliefs and values underlying the conduct, thought, knowledge and nature of the method.
<b>Theoretical</b>	—	General principle or set of principles formulated to explain the operation of the method.
<b>Structural</b>	—	Arrangement or interrelation of all the parts of the whole.
<b>Functional</b>	—	Natural or required activity that is expected. How the method intends to perform.
<b>Efficacy</b>	—	Power to produce intended results.

## Project Questions

**QUESTIONS:** The questions that guided this study were:

1. What are the key philosophical, theoretical, structural, functional and efficacy dimensions that comprise the CPS, Lateral Thinking and Synectics creative problem solving methods?
2. In what ways are these methods similar and/or different based upon these comparative dimensions?
3. How might and evaluative comparison of these methods benefit practitioners, researchers and educators?

## Project Significance

**SIGNIFICANCE:**

This study addressed the need for more thorough comparative data in regard to the Creative Problem Solving (CPS), Synectics and Lateral Thinking creative problem solving methods. The project provides an objective base of data that allows creativity practitioners, researchers and educators to make better-informed decisions about the study and application of creative problem solving in general. Creativity is a field of study that has been plagued by fractionalized efforts and us-against-them mindsets where many have ignored existing work in the field and opted rather to take on the 'lone-wolf' image and work in isolation. Project findings bring closure to misperceptions surrounding these methods and act as a springboard to help initiate more investigation, collaboration and unity among individuals and those 'lone-wolfs' in the field of creativity. The heuristic framework and data contained in this study might also influence future research and curriculum design and widen the scope of content delivery at the *International Center for Studies in Creativity*, Buffalo State College, NY.



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# And...So What's The Verdict?



You will notice, and possibly be surprised, how similar these methods truly are across several of the dimensions investigated in this study. It is the level of abstraction and creator/method articulation and 'packaging' that seems to set them apart. In truth, these methods are all fighting the same fight and with relatively the same approach. Of course there are plenty of differences, and those are highlighted in the study and by dimension of analysis (for specific comparisons see González, D. (2001). *The art of solving problems: Comparing the similarities and differences between Creative Problem Solving (CPS), Lateral Thinking and Synectics*. Unpublished master's project, State University of New York Buffalo State College, International Center for Studies in Creativity, Buffalo, NY). In a nutshell, findings suggest:

- CPS can be characterized as an operational model that provides a framework for specific tools and techniques that generate, evaluate, develop, refine, and implement novel solutions to problems and opportunities. Due to its flexible, multilevel structure, CPS may act as a host creative problem solving method and include parts of other methods within its framework. CPS allows users the flexibility to utilize the entire process in a linear fashion or simply use CPS in pieces—by meta-component, component, stage, phase or tool. The power behind this method is the separation and harmonious balance between creative (divergent) and critical (convergent) thinking.
- Edward de Bono tackles creative thinking as a philosophy and supports his approach with numerous thinking tools and techniques. His entire body of work is supported by three pillars—Lateral Thinking, Parallel Thinking (Six Thinking Hats) and DATT (Direct Attention Thinking Tools). Lateral Thinking in particular is not a creative problem solving method with explicit steps, yet a behavioral approach (mindset) concerned with changing concepts, patterns, and perceptions. Lateral thinking is a collection of thinking techniques rather than a structured thinking process. Parallel thinking (Six Thinking Hats) is both a process and tool and ensures that we engage in only one thinking mode at a time and/or think along parallel lines in group settings. DATT are simply a set of ten strategies to help sharpen individual perception and focus a person's thinking to improve situation-defining skills.
- Synectics draws individuals into certain psychological states that are conducive to creative production. Synectics forces artificial vacations by allowing participants to take an 'excursion' that puts distance between themselves and their problem or opportunity. This creative problem solving method strives for problem clarification and generates novelty through the use of analogical thinking. This thinking encourages creative behavior, the ability to live with complexity, apparent contradiction and speculation. The principles that propel Synectics are *making the familiar strange and making the strange familiar*—these excel at generating novelty and do so through the use of triggering mechanisms (questions).

It is important to note that these methods cannot necessarily be ranked against each other in hopes of selecting one 'global' winner. The points of differentiation among these methods make them all winners. One size does not fit all and there is certainly more than one-way to skin a cat. There is a time and place for each of these methods and it behooves you to have a thorough understanding of them all so that you can better design your own interventions. For the most skilled practitioner, researcher and educator will have knowledge of all of these methods and use them in their totality or pieced together depending on the demands of the challenge at hand.



There is a great need for perspective in the field of creativity. A great need for understanding of methodologies other than our own. We might be aggressively defending that which we really may not understand and quickly becoming prisoners of our own knowledge. Collaboration should be top priority in the field of creativity. For a field that promotes the benefits of new thinking and the need for change, it sure has trouble swallowing its own pill. Never has the field of creativity been so primed to influence the world and we must collaborate and give rise to the type of categorical initiatives that will solidify its existence and make it a discipline to be reckoned with.

## Why You Should Read The Full Project...

The in-depth breakdown of information contained in this study will allow you to 'feel' these methods and understand what makes them stop and go...it will make you intimately familiar with their parts and whole. Many times in life we allow ourselves to be lured into thinking a certain way or buying into something that isn't necessarily reality or isn't everything the creators claimed it to be. At times, we, as imperfect beings, unconsciously tend to become 'cultish' in our beliefs and behavior. We may base our ideology on blind faith and then cling, with a vise-like grip, to the sign posted "my way or the highway". We do ourselves and injustice by not moving beyond the appearance and illusion of things to see the matrix in the background—to see just how, why, what, where, when, and who? Sometimes we are too quick to judge and look for that quick-fix or silver-bullet approach to 'solve all' and forget to take a step back and understand things at their core—their purest essence—their heartbeat. You will become aware of that which is real and that which is pure illusion and appearance. The project takes a no-holds-barred approach to bring clarity and truth to the 'unaware' eye, and does so through a thorough, yet easily digestible synthesis.



All information contained in this executive summary has been modified from the original executive summary in design but not content. For original executive summary see: