

Methodology 2 – Creative Problem-Solving Model

CREATIVE PROBLEM SOLVING 21st CENTURY



CLARIFY THE PROBLEM
GENERATE IDEAS
DEVELOP SOLUTIONS
PLAN FOR ACTION

PROCESS OVERVIEW



	CLARIFY THE PROBLEM	CLARIFY THE PROBLEM	CLARIFY THE PROBLEM	GENERATE IDEAS	DEVELOP SOLUTIONS	PLAN FOR ACTION
Mindset	Clarifying	Clarifying	Clarifying	Ideating	Developing	Implementing
Step	IDENTIFY GOAL, WISH OR CHALLENGE	GATHER DATA	CLARIFY THE PROBLEM	GENERATE IDEAS	DEVELOP SOLUTIONS	PLAN FOR ACTION
When to start	You want to create, invent, solve or improve something.	You want to explore the facts, feelings, and data around a goal, wish or challenge.	You want to pinpoint the best problem to solve.	You have a clearly defined problem and you need ideas to solve it.	You want to turn promising ideas into workable solutions.	Start here when you have a solution and need buy-in from others. You want to create a detailed plan of action to follow.
Statement starters	I wish... It would be great if...		How to... How might... In what ways might... What might be all the...			
Tools or Sample Questions	Diverge: What are some things you have done lately that you would like to do better? Who has been on your mind lately? Why? What are some goals, dreams or visions you would like to accomplish this year? What might be some ideal goals or wishes for your life? Converge: Select the goal, wish or challenge on which you have ownership, motivation and a need for Imagination.	Diverge: What is a brief history of your goal, wish or challenge? What have you already thought of or tried? What might be your ideal goal? Converge: Select the key data that reveals a new insight into the situation or that is important to consider throughout the remainder of the process.	Why?/What's stopping me? Diverge: Defer judgment, Strive for quantity, Seek wild & unusual questions, Combine and build on other questions. Converge: Highlighting (Hits, Cluster, Restate as a creative question)	Diverge: Defer Judgment. Strive for quantity. Seek wild and unusual ideas. Combine and build on other ideas. Brainstorming, Brainstorming with post-its, Brainwriting, Forced Connections Converge: Highlighting (Hits, Cluster, Restate as an action)	Pluses, Potentials, Concerns, Overcome Concerns (PPCo) Diverge: Generate ideas to OVERCOME your concerns. Converge: Select the best ideas to overcome your concerns and improve your solution.	Diverge: List all of the actions you might take to implement your solution. What might you do to make your solution easy to understand? What might you do to demonstrate the advantages of your solution? How might you gain acceptance of your solution? What steps might you take to put your solution into action? Converge: Select the key actions to implement your solution. Create a plan detailing who does what by when.
Outcome	A statement of your goal or wish or challenge	A list of key data about your goal, wish or challenge.	A well-defined question that describes the best problem to solve.	An idea or a number of ideas that will solve your problem	A well developed and detailed solution(s).	A specific plan for action.



CLARIFY THE PROBLEM

Start here when you are looking to improve, create, or solve something. You want to explore the facts, feelings and data around it. You want to find the best problem to solve.

IDENTIFY GOAL, WISH OR CHALLENGE

Start with a goal, wish or challenge that begins with the phrase: "I wish..." or "It would be great if..."

Diverge: If you are not quite clear on a goal then, make a list of all of the things that you would like to create, invent, solve or improve.
Converge: Select the goal, wish or challenge on which you have Ownership, Motivation and a need for Imagination.

GATHER DATA

Diverge: What is a brief history of your goal, wish or challenge? What have you already thought of or tried? What might be your ideal goal?
Converge: Select the key data that reveals a new insight into the situation or that is important to consider throughout the remainder of the process.

CLARIFY THE PROBLEM

Diverge: Generate many questions about your goal, wish or challenge. Phrase your questions beginning with: "How to...?" "How might...?" "What might be all the ways to...?"
Try turning your key data into questions that redefine the goal, wish or challenge.

Converge:
1. **Mark the "HITS":**
New insight, Promising direction. Nails it! Feels good in your gut.
2. **Group the related "HITS" together.**
3. **Restate the cluster.**
"How to..." "What might be all the..."



GENERATE IDEAS

Start here when you have a clearly defined problem and you need ideas to solve it. The best way to create great ideas is to generate LOTS of ideas. Defer judgment. Strive for quantity. Seek wild & unusual ideas. Build on other ideas.

Diverge: Come up with at least 40 ideas for solving your problem. Come up with 40 more. Keep going. Even as you see good ideas emerge, keep pushing for novelty. Stretch!

Converge:
1. **Mark the "HITS":**
Interesting, Intriguing, Useful, Solves the problem. Sparkles at you.
2. **Group the related "HITS" together.**
3. **Restate the cluster with a verb phrase.**

GROUND RULES

- WHEN YOU DIVERGE**
- Defer judgment
 - Strive for quantity
 - Seek wild & unusual ideas
 - Build on other ideas
- WHEN YOU CONVERGE**
- Be affirmative
 - Be deliberate
 - Check objectives
 - Consider novelty



DEVELOP SOLUTIONS

Start here when you want to turn promising ideas into workable solutions.

DEVELOP YOUR SOLUTION

Review your clusters of ideas and blend them into a "story." Imagine in detail what your solution would look like when it is implemented.

Begin your solution story with the phrase, "What I see myself doing is..."

PPCo EVALUATION
PPCo stands for Pluses, Potentials, Concerns and Overcome concerns

Review your solution story.

- List the **PLUSES** or specific strengths of your solution.
- List the **POTENTIALS** of your solution. What might be the result if you were to implement your idea?
- Finally, list your **CONCERNS** about the solution. Phrase your concerns beginning with "How to..."
- Diverge and generate ideas to OVERCOME** your concerns one at a time until they have all been overcome
- Converge and select the best ideas** to overcome your concerns. Use these ideas to improve your solution.



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PLAN FOR ACTION

Start here when you have a solution and need buy-in from others. You want to create a detailed plan of action to follow.

Diverge: List all of the actions you might take to implement your solution.

What might you do to make your solution easy to understand?

What might you do to demonstrate the advantages of your solution?

How might you gain acceptance of your solution?

What steps might you take to put your solution into action?

Converge: Select the key actions to implement your solution. Create a plan detailing who does what by when.

Creative Problem Solving - 21st Century is based on the work of: Osborn, A.F. (1953). Applied Imagination: Principles and procedures of Creative Problem Solving. New York: Scribner's. Parnes, S.J., Noller, R.B. & Biondi, A. (1977). Guide to Creative Action. New York: Scribner's. Miller, B., Firestien, R., Vehar, J. Plain language Creative Problem-Solving Model, 1997. Puccio, G.J., Mance, M., Murdock, M.C. (2010). Creative Leadership: Skills that drive change. (Second Edition). Sage Publications. Thousand Oaks, CA. Miller, B., Vehar, J., Firestien, R., Thurber, S. Nielsen, D. (2011) Creativity Unbound: An introduction to creative process. (Fifth Edition). Foursight, LLC. Evanston, IL. PPC (Pluses, Potentials & Concerns) was invented by Diane Foucar-Szocki, Bill Shepard & Roger Firestien in 1982.

Methodology 3 – Thinking Skills Model

AFFIRMATIVE ENVIRONMENT/CLIMATE

CPS and the Cognitive Thinking & Affective Skills*							
CPS Step	Assessing the Situation ^A	Exploring the Vision ^B	Formulating Challenges ^C	Exploring Ideas ^D	Formulating Solutions ^E	Exploring Acceptance ^F	Formulating A Plan ^G
Purpose	<i>To describe & identify relevant data & to determine the next step.</i>	<i>To develop a vision of a desired outcome.</i>	<i>To identify the gaps that must be closed to achieve the desired outcome.</i>	<i>To generate novel ideas that address important challenges.</i>	<i>To move from ideas to solutions.</i>	<i>To increase the likelihood of success.</i>	<i>To develop an implementation plan.</i>
Thinking Skills	Diagnostic Thinking¹ <i>Carefully examining a situation, describing the nature of a challenge, & making decisions about appropriate process steps to be taken.</i>	Visionary Thinking² <i>Articulating a vivid image of what you want to create.</i>	Strategic Thinking³ <i>Identifying critical issues that must be addressed & the pathways needed to move toward the desired future.</i>	Ideational Thinking⁴ <i>Producing original mental images & thoughts that respond to important challenges.</i>	Evaluative Thinking⁵ <i>Assessing the reasonableness & quality of ideas in order to develop workable solutions.</i>	Contextual Thinking⁶ <i>Understanding the underlying conditions & circumstances that will support or hinder success.</i>	Tactical Thinking⁷ <i>Devising a plan that includes specific & measurable steps for attaining a desired outcome & methods for monitoring its effectiveness.</i>
Affective Skills	Mindfulness¹¹ <i>Attending to thoughts, feelings, & sensations relative to the present situation.</i>	Dreaming²¹ <i>To imagine as possible your desires and hopes.</i>	Sensing Gaps³¹ <i>To become consciously aware of discrepancies between what currently exists & is desired or required.</i>	Playfulness⁴¹ <i>Freely toying with ideas.</i>	Avoiding Premature Closure⁵¹ <i>Resisting the urge to push for a decision.</i>	Sensitivity to Environment⁶¹ <i>The degree to which people are aware of their physical & psychological surroundings.</i>	Tolerance for Risks⁷¹ <i>Not allowing yourself to be shaken or unnerved by the possibility of failure or setbacks.</i>

*Adapted from *Creative Leadership: Skills that Drive Change* by Puccio, Mance, & Murdock, pages 71 & 73 (2011)

Methodology 4 – The Leadership Challenge Model

THE FIVE PRACTICES AND TEN COMMITMENTS OF EXEMPLARY LEADERSHIP



1. **FIND YOUR VOICE** by clarifying your personal values.
2. **SET THE EXAMPLE** by aligning actions with shared values.



3. **ENVISION THE FUTURE** by imagining exciting and ennobling possibilities.
4. **ENLIST OTHERS** in a common vision by appealing to shared aspirations.



5. **SEARCH FOR OPPORTUNITIES** by seeking innovative ways to change, grow, and improve.
6. **EXPERIMENT AND TAKE RISKS** by constantly generating small wins and learning from mistakes.



7. **FOSTER COLLABORATION** by promoting cooperative goals and building trust.
8. **STRENGTHEN OTHERS** by sharing power and discretion.



9. **RECOGNIZE CONTRIBUTIONS** by showing appreciation for individual excellence.
10. **CELEBRATE THE VALUES AND VICTORIES** by creating a spirit of community.

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EQ-i 2.0 Model of Emotional Intelligence

SELF-PERCEPTION

Self-Regard is respecting oneself while understanding and accepting one's strengths and weaknesses. Self-Regard is often associated with feelings of inner strength and self-confidence.

Self-Actualization is the willingness to persistently try to improve oneself and engage in the pursuit of personally relevant and meaningful objectives that lead to a rich and enjoyable life.

Emotional Self-Awareness includes recognizing and understanding one's own emotions. This includes the ability to differentiate between subtleties in one's own emotions while understanding the cause of these emotions and the impact they have on one's own thoughts and actions and those of others.

STRESS MANAGEMENT

Flexibility is adapting emotions, thoughts and behaviors to unfamiliar, unpredictable, and dynamic circumstances or ideas.

Stress Tolerance involves coping with stressful or difficult situations and believing that one can manage or influence situations in a positive manner.

Optimism is an indicator of one's positive attitude and outlook on life. It involves remaining hopeful and resilient, despite occasional setbacks.



SELF-EXPRESSION

Emotional Expression is openly expressing one's feelings verbally and non-verbally.

Assertiveness involves communicating feelings, beliefs and thoughts openly, and defending personal rights and values in a socially acceptable, non-offensive, and non-destructive manner.

Independence is the ability to be self directed and free from emotional dependency on others. Decision-making, planning, and daily tasks are completed autonomously.

DECISION MAKING

Problem Solving is the ability to find solutions to problems in situations where emotions are involved. Problem solving includes the ability to understand how emotions impact decision making.

Reality Testing is the capacity to remain objective by seeing things as they really are. This capacity involves recognizing when emotions or personal bias can cause one to be less objective.

Impulse Control is the ability to resist or delay an impulse, drive or temptation to act and involves avoiding rash behaviors and decision making.

INTERPERSONAL

Interpersonal Relationships refers to the skill of developing and maintaining mutually satisfying relationships that are characterized by trust and compassion.

Empathy is recognizing, understanding, and appreciating how other people feel. Empathy involves being able to articulate your understanding of another's perspective and behaving in a way that respects others' feelings.

Social Responsibility is willingly contributing to society, to one's social groups, and generally to the welfare of others. Social Responsibility involves acting responsibly, having social consciousness, and showing concern for the greater community.

Discover your profile

Humans are natural innovators: Every day, we solve new problems, meet new challenges and pursue new opportunities. We do it, whether we know it or not, by following the universal steps of the breakthrough thinking process. Mastery comes with time and practice. But there's a faster way to get it: with FourSight.

FourSight: The Breakthrough Thinking Profile reveals your preference for each of the four distinct phases of the breakthrough thinking process. Knowing your preference unlocks your ability to problem solve, collaborate and lead with better results.

The four main preferences:

Clarifier-at-a-glance

- Enjoys exploring challenges and opportunities
- Likes to examine the details
- Wants a clear understanding of the issue
- Prefers a methodical approach to solving problems
- May suffer from "analysis paralysis"

Ideator-at-a-glance

- Likes to look at the big picture
- Enjoys toying with ideas and possibilities
- Likes to stretch his or her imagination
- Enjoys thinking in more global and abstract terms
- Takes an intuitive approach to innovation
- May overlook details

Developer-at-a-glance

- Enjoys putting together workable solutions
- Likes to examine the pluses and minuses of an idea
- Likes to compare competing solutions
- Enjoys analyzing potential solutions
- Enjoys planning the steps to implement an idea
- May get stuck in developing the perfect solution

Implementer-at-a-glance

- Likes to see things happen
- Enjoys giving structure to ideas so they become a reality
- Enjoys seeing ideas come to fruition
- Likes to focus on "workable" ideas and solutions
- Takes the Nike approach to innovation (i.e., "Just Do It!")
- May leap to action too quickly

The "Integrator"

While most people have high and low preferences, roughly 20% of FourSight respondents take a very even approach to the breakthrough thinking process. These so-called "Integrators" show no particular peaks or valleys. Integrators' energies stay rather steady as they work through the breakthrough thinking process. They can be very flexible team players, easily accommodating whatever the task requires. They may lose their voice in a group. As you review your scores, keep the following thoughts in mind:

There are no "good" or "bad" scores

Each of these four preferences has its own strengths and potential weaknesses. The high points on your graph reflect the types of thinking you most prefer.

Preference is not ability

Preference does not guarantee ability, nor does lack of preference suggest lack of ability. Innovation skills can be learned. The brain, like a muscle, can be developed. Growing more aware of your own preferences may help you anticipate where you'll need additional tools or more practice and where you might be of assistance to others.

Puccio, G. J. (1999). Creative problem-solving preferences: Their identification and implications. *Creativity and Innovation Management*, 8(3), 171–178. <https://doi.org/10.1111/1467-8691.00134>

Methodology 7 – The SAVI Approach

the **SAVI** approach to learning, as adapted from *The Accelerated Learning Handbook* (2000) by David Meier.

Learning with the whole self means that while you are learning something new, you get physically active, try to use all of your senses, and involve your mind. This is the SAVI approach.

Somatic Moving. Doing.
 Hands-on Learning.
 • build an item

Auditory Talking. Hearing.
 • read out loud

Visual Observing.
 Picturing.
 • pictogram

Intellectual Problem Solving.
 Reflecting.
 • ask questions

All four of the above must be used simultaneously in order to effect greatest results.

investigate
ask
tell
draw
build



somatic



auditory



visual



intellectual