



Quick Start Guide

This guide is designed to help you cultivate your creative confidence, dismantle barriers like cognitive fixedness, and explore novel solutions to challenging problems. Creativity is not an inborn talent but a muscle that strengthens with exercise and is honed through deliberate practice. This challenge provides specific methods and exercises to help you jumpstart training your brain.

Day 1: Embrace Constraints

Theme: Understand how working within limits - whether time, resources, rules, or perspectives - can actually fuel creative thinking and accelerate your capacity to generate novel solutions. Constraints are not obstacles; they are catalysts for ingenuity.

Why it Helps: Constraints are a fundamental part of nearly every problem and project we face. Rather than hindering creativity, they can provide positive pressure that pushes you to think more deeply. Limited resources, for instance, can foster a higher level of resourcefulness and ingenuity. Constraints help to provide clarity on where to focus your efforts, ensuring ideas are not shallow or scattered but have true cohesion. Embracing constraints improves the quality of the ideas you generate, making innovation more likely. It aligns with the "MacGyver Mindset" of using available resources in unconventional ways to solve problems and the willingness of rule-breakers to challenge norms when faced with limitations. As Tony Fadell notes, constraints are an absolute asset that push teams to make progress and avoid having their focus wander. Embracing constraints, including challenging cognitive biases like functional fixedness and design fixation, is crucial for unlocking creative potential.

Here are some exercises to help you practice embracing and working within constraints:

- **Exercise: Challenge Your Assumptions (Insight Problem)**
 - **Objective:** Practice identifying and breaking free from ingrained assumptions or cognitive biases that act as hidden constraints on your thinking.

- Instructions: Consider the following problem:

The Surgeon Riddle: A child is brought into the emergency room after a serious accident. The surgeon on duty looks at the child and exclaims, "I can't operate on this child; he is my son!" However, the surgeon is not the child's father. How is this possible?

- How this helps embrace constraints: This classic "insight problem" demonstrates how a common, often unconscious bias (assuming the surgeon's gender) can constrain your thinking and prevent you from seeing the obvious solution. Solving it requires restructuring the problem and letting go of fixed assumptions, which is essential practice for overcoming cognitive fixedness caused by prior knowledge or experience. The solution is simple once the constraint (the gender assumption) is identified and removed.
- Reflection: What assumption did you initially make that prevented you from solving the puzzle? How did letting go of that assumption immediately reveal the solution? Where else might similar hidden assumptions or biases be constraining your thinking about problems in your work or life
- Exercise: Reimagine Possibilities (Generic Parts Technique - GPT)
 - Objective: Practice breaking down objects or problems beyond their intended uses and conventional descriptions to discover new possibilities, fostering a "MacGyver Mindset". This helps overcome functional fixedness and design/goal fixation - forms of cognitive constraint.
 - Instructions: Choose one of the exercises below focusing on deconstructing something into its most basic, generic components, ignoring its typical function or goal.
 1. Everyday Objects: Pick a common household object (e.g., a blender, a mug, a lamp). List its parts, breaking them down as much as possible. For each component, list its physical attributes and then imagine its function in the most generic terms (e.g., a plastic handle is a "grip surface," a metal rod is a "rigid connector"). Brainstorm entirely new uses for the object based only on the generic functions of its parts.
 2. Scenario-based Problems: Describe a situation requiring a solution (e.g., pulling a weed). Identify the basic functional needs to solve it (e.g., must reach the root, requires leverage). Pick a common tool not typically used for this task (e.g., a spoon). Apply the Generic Parts Technique: break the tool into parts and consider how their generic functions could address the problem creatively.

3. Open-ended Exploration: Choose a broad category (hypernym) like "carrier" or "connector". Imagine situations where typical items from that category aren't available. Brainstorm ways to fulfill the generic function ("carrying," "connecting") using everyday objects by considering what makes an item functionally a "carrier" or "connector" in its most basic sense.
- How this helps embrace constraints: This technique directly challenges the constraint of functional fixedness by forcing you to ignore an object's established purpose and instead focus on its raw components and their most general capabilities. When applied to problems or goals, GPT helps overcome fixation by reframing the challenge in more general terms, removing implied solutions, and broadening the range of possibilities. This intentional restriction (focusing only on generic parts/functions) paradoxically unlocks new avenues for creative solutions.
 - Reflection: What new uses or solutions did you discover by breaking down the object or problem into generic parts? Was it difficult to ignore the object's or tool's intended use? How might applying this technique to everyday challenges or business problems help you find novel solutions under resource constraints?
 - Optional AI Partnership: You can use generative AI to help you practice the Generic Parts Technique. After selecting your object or problem, prompt the AI to help you break it down into its most basic, generic components using hypernyms. Ask the AI to describe the physical attributes and potential functional uses of these components in a generic way. Then, prompt the AI to suggest unconventional ways to combine these generic parts or apply them to your problem, ensuring you use abstract language and hypernyms in your prompts to avoid narrowing the AI's focus. Remember that AI might struggle with the nuance of abstract concepts, so iterate on the output and refine your prompts. An example tool is the Supermind Ideator, which uses 'basic design moves' like zooming in/out and exploring analogies that align with GPT principles.
- Exercise: Collaborate Randomly (Exquisite Corpse - Group)
 - Objective: Practice working collaboratively within strict, random constraints to generate unexpected and novel outcomes, breaking free from linear thinking and preconceived notions.
 - Instructions: This is a group exercise requiring 3-4 participants. You can do this with drawing or collage; collage is recommended first to reduce reliance on drawing skills.
 - Gather paper, scissors, paste/glue, and old magazines/newspapers/junk mail.
 - Fold the paper into equal parts based on the number of participants.
 - The first person builds a collage on the top section to create the "head" of an imaginary figure using evocative shapes, colors, and images from the

- collected media (limit time, e.g., 15 mins). They fold the paper to hide their work, leaving only the base of the neck visible.
 - Pass the paper. The next person adds the "body" in the middle section, only seeing the neck base, then folds to conceal their work, leaving just the bottom visible.
 - Repeat for legs/feet. If four players, the last person adds feet after seeing only the legs.
 - Unfold the paper to reveal the collaborative figure.
- How this helps embrace constraints: The primary constraint here is that each participant can only see and work on a small portion of the composition, without knowing the full context. This forces reliance on imagination and spontaneous response rather than pre-planning or being tied to "prior art". The strict rule of concealing work and the random inputs (different people's choices, random media pieces) generate unexpected combinations that challenge conventional thinking and overcome functional fixedness related to how body parts should connect or look. The exercise promotes a playful mindset by removing the pressure of a single "correct" answer.
- Reflection (Group): Discuss the process. What was it like working without seeing the whole picture? How did the constraints influence your creative choices? Were the final figures surprising or bizarre? What did you learn about collaborating within strict boundaries?
- Optional AI Partnership: Partnering with generative AI for Exquisite Corpse is challenging because its process is linear and logical, unlike the random, often irrational nature of this exercise. AI lacks genuine emotions and consciousness, which are integral to the creative and surprising outcomes. While you could try to prompt AI to generate fragments based on minimal input, it would struggle with the intentional randomness, metaphorical thinking, and lack of overall coherence that defines the technique. The AI's output would likely be bounded by its training data rather than exhibiting the "leap into the unknown" that human creativity in this exercise allows. It may be possible to use AI to find evocative images for the collage part, but the core creative process of spontaneous, constrained assembly is inherently human in this technique.

By engaging in these exercises, you actively confront the cognitive constraints that limit creative thought and practice using constraints as a positive force for generating novel and resourceful solutions, aligning with the "Embrace Constraints" theme of Day 1.

Day 2: The Same, Only Different (Analogic Thinking)

Theme: Explore how finding connections and similarities between seemingly unrelated domains - whether products, services, concepts, or experiences - can generate new insights and unlock innovative solutions by allowing you to borrow processes, systems, or methods from one area and apply them to another.

Why it Helps: Analogic thinking is a powerful cognitive skill that helps us navigate unfamiliar situations by reducing complex problems to their essential characteristics and looking for parallels in other contexts. It's a close cousin to combinatorial thinking ("When X Meets Y") but focuses on borrowing elements rather than blending entities. This approach is crucial for overcoming expert bias by guiding you to explore new domains for solutions, rather than relying solely on knowledge within your own field. Analogies can make abstract ideas understandable by anchoring them in familiar references. They can also introduce new perspectives, reveal underlying absurdities, and make accepting and understanding novel ideas easier by connecting them to something already known. Examples like the "Uber for X" analogy for startups illustrate how quickly this can orient an audience, such as investors. Analogies help avoid getting fixated on a specific solution by opening up the broadest view of the problem space, much like the MacGyver Mindset. The effectiveness of analogies in generating new ideas depends on the psychological distance between the domains being compared - thinking from an abstract, detached perspective can lead to a broader range of possibilities.

Here are some exercises to help you practice and leverage analogic thinking:

- Exercise: Build an Analogy
 - Objective: Practice the structured process of creating effective analogies by identifying similarities between seemingly unrelated domains to generate new ideas. This exercise enhances lateral thinking and improves understanding across diverse fields.
 - Instructions: Follow the steps below to build an analogy. You can do this exercise initially without generative AI, and then repeat it using AI as a partner as suggested in the optional step below.
 1. Select Two Unrelated Domains: Choose two areas of knowledge or life that are not directly related. Examples could be everyday tasks like grocery shopping, washing a car, or gardening.
 2. Identify Key Elements and Attributes: For each of the two domains, list as many key elements, characteristics, processes, or concepts as you can. Think about adjectives, mechanics, critical activities, and sensory or emotional aspects.
 3. Identify Parallel Elements: Review your lists for both domains. Look for elements in each list that share a common function, purpose, characteristic,

or underlying principle. Practice making abstractions to draw parallels, focusing on the relationships or roles within their respective domains.

4. **Create Analogies:** Use a simple framework, like "A is to B as C is to D," to help structure your thinking. Aim to create analogies that are imaginative and highlight non-obvious connections. Write down any analogies that come to mind without editing them for reasonability, as even absurd ones can spark insights and new perspectives.
 5. **Share and Refine:** Share your analogies out loud with someone who wasn't involved in the process. Pay attention to whether the parallels you've drawn are clear to your audience. Refine your analogies based on their feedback. This step tests the validity of your comparison and helps deepen your understanding of analogy-making.
- How this helps with analogic thinking: This exercise guides you through the cognitive process of analogical reasoning: retrieving information, identifying similarities (mapping), applying knowledge (transfer), and potentially transforming a domain based on the insights gained. By forcing you to explicitly look for connections between unrelated things and structure those connections, it trains your brain to think in parallels and overcome the tendency to stay within familiar domains. The sharing step emphasizes the importance of the analogy's utility and resonance for an audience, a key aspect of creative ideas.
 - Reflection: What was challenging about finding parallels between your chosen domains? Did the "A is to B as C is to D" structure help? How did sharing your analogies affect your perception of their effectiveness? What new ideas emerged from this process that you might not have found otherwise?
 - Optional AI Partnership: After your initial attempt, partner with a generative AI platform. Provide the AI with your selected domains and the lists of elements/attributes you generated. Ask the AI to suggest potential parallel elements and generate analogies using the "A is to B as C is to D" structure. You can also ask the AI to suggest analogies based on different types (e.g., functional, structural, causal). Provide feedback to the AI on its suggestions, iterating on the output by asking for refinements or exploring different domains. Remember that AI may struggle with nuance, cultural subtleties, and subjective understanding, so human discernment is crucial. The source notes that collaborating with GenAI can help you cover ground more quickly, exercising your creative muscle and accelerating creative velocity.
- **Additional Analogic Thinking Practice (Optional):**
 - You can further practice analogic thinking by trying these exercises described in the sources:

- Find Connections: This puzzle asks you to find hidden connections between seemingly unrelated words.
- Create Connections: This exercise challenges you to create compound words by finding a connecting element between a set of unrelated words.
- Fill in the Analogy: This fill-in-the-blank exercise tests your ability to recognize various types of relationships (e.g., part-to-whole, function, opposites) within analogies, emphasizing the need to select a target domain different from the base.

By engaging with these exercises, you train your brain to find connections in unexpected places, apply insights from one area to another, and use analogies as a powerful tool for generating novel solutions and communicating complex ideas effectively, embodying the theme of "The Same, Only Different" for Day 2.

Theme: Generate new ideas by combining existing concepts from different domains. This is known as combinational or combinatorial creativity. Thinking about analogies also involves finding connections and similarities between seemingly disparate domains.

Why it Helps: Combining and connecting ideas are fundamental mechanisms for generating novelty. Blending distant domains, where the difference between the elements is significant, can lead to more radical and groundbreaking ideas. Analogies make abstract ideas more understandable by referencing something familiar.

- Exercise: Practice the Combinational Creativity Speed Round (Everyday Objects).
 1. Objective: Generate as many novel solutions or ideas as possible by combining elements from different domains or disciplines in a fixed time period, usually three to five minutes.
 2. Instructions: Set a time limit (e.g., 3 minutes) and a target for the number of random combinations (e.g., 3 products). Proceed undaunted by absurdity, maintain an open mindset, and keep pushing forward without editing.
 3. Select two unrelated domains: Choose two categories (e.g., Personal care items and Office Supplies).
 4. List Items: Make a list of ten items from each domain.
 5. Pair Items: Pair one item from each domain.
 6. Develop Ideas: Develop ideas for novel ways to combine those two things. Consider what aspects can be combined, what should be discarded, if individual uses can be combined, and if the combination delivers an entirely new purpose.
 7. Define Purpose: Define the purpose of the newly created product in a sentence or two.

- Optional AI Partnership: You can use generative AI to brainstorm combinations. Provide a clear challenge or goal and two disparate domains, and ask the AI to generate ideas that combine elements from these domains. Refine the prompt if needed.

Day 3: Challenge the Status Quo

Theme: Break mental limitations and challenge assumptions about how things are typically done. This involves a willingness to question conventional wisdom and explore uncharted territory. Opposite thinking and the SCAMPER method are techniques to achieve this.

Why it Helps: Challenging established norms and conventions that hinder innovation is at the heart of creative destruction. These techniques spur divergent thinking and help uncover opportunities to innovate by looking at problems from different perspectives.

- Exercise: Practice the Opposite Thinking Process.
 1. Define the Problem: Briefly describe a problem you're trying to solve.
 2. Identify the Desired Outcome: What would success look like?
 3. Identify Key Assumptions: What are the key assumptions about achieving that outcome? Consider the environment, human behavior, market forces, etc..
 4. Reverse the Assumptions: Consider a world where the opposite of your key assumptions is true.
 5. New Perspectives: Look for potential solutions or approaches that would make sense in that flipped reality.
- Optional AI Partnership: Generative AI can be a helpful collaborator in exploring opposite ideas because it is free from personal biases and attachments. To get the best results, provide detailed context in your prompts and use specific language to identify the type of opposite you're seeking (physical, conceptual, metaphorical). Framing the prompt as “imagine X and not X” can be effective.

Day 4: The Inner Game: Emotions, Flow, and Self-Awareness

Theme: Understand how emotions and mindset influence creativity, regulate them, find your triggers for peak performance states like flow, and cultivate self-awareness. Self-awareness and cognitive flexibility are important.

Why it Helps: Emotional regulation allows you to harness the benefits of various emotions while minimizing negative impacts. Flow is a state of profound immersion and focus where

innovative solutions emerge, enhancing the ability to make connections between seemingly unrelated ideas. Understanding your emotional triggers and thought patterns through self-awareness is critical for managing your creative capacity and achieving a state of flow. Physical activity and time in nature can induce states conducive to mind-wandering and creative connections.

- **Exercise: Find Your Flow State**
 - **Objective:** Identify and engage in activities that help you achieve a state of focused immersion where ideas can cross-pollinate freely. This often happens when you are not actively trying to think about a problem.
 - **Instructions:** Dedicate at least 20-30 minutes to one of the following activities, aiming for a state of focused, yet relaxed, engagement. Pay attention to how your mind behaves and if new ideas or connections surface.
 1. **Movement in Nature/Environment:** Go for a walk, hike, or run outdoors. Focus on the sensory experience - the sights, sounds, smells, and physical sensations of movement. Let your mind wander without judgment.
 2. **Focused Physical Activity:** Engage in another physical activity you enjoy, like swimming, cycling, or a structured workout. Concentrate on the mechanics of the movement or the rhythm of the activity.
 3. **Engaging Puzzle or Simple Task:** Choose a puzzle like a Crossword, Sudoku, or Logic Puzzle. Alternatively, engage in a simple, routine task that requires some physical engagement but not deep conscious thought, like doodling or coloring. Pay attention to the concentration and pattern recognition required by puzzles or the free-flowing nature of doodling.
 - **Reflection:** After the activity, take a few minutes to reflect. Did you feel a sense of immersion or deep focus? Did your mind wander? Did any new ideas, connections, or perspectives emerge related to problems you are thinking about, or unrelated topics? What conditions (environment, time of day, type of activity) seemed most conducive to this state?
 - **Optional AI Partnership:** While AI cannot experience flow, you can use it to help identify potential activities that might induce flow for you based on your interests and skills. You can also use AI to help you explore themes or ideas that surfaced during your flow state by prompting it to make connections or generate related concepts. When collaborating with AI for flow-like tasks, ensure the task is appropriately challenging, minimize distractions, and iterate the output to deepen engagement.
- **Exercise: Creative Self-Assessment through Self-Reflection**

- Objective: Increase self-awareness about your creative process, emotional triggers, and habitual thought patterns. This reflection acts as a personal assessment of your inner landscape affecting your creativity.
- Instructions: Choose one or both of the following self-reflection techniques:
 1. Automatic Thought Challenge:
 - Identify: Recall a recent situation that triggered a negative emotional response or automatic thought. Write down the thought.
 - Challenge: Ask yourself: Is this thought accurate? Is there evidence for or against it? Is it helpful?. Are there alternative explanations for the situation?.
 - Replace/Reframe: Develop a more balanced or realistic thought. Reframe the situation from a different perspective. How might someone else interpret it? Can you find a positive aspect or opportunity? Consider how this problem compares to others to gain perspective.
 2. Pattern Recognition Challenge:
 - Track: For a few days, briefly note situations or cues that trigger specific emotions or strong automatic thoughts. Use the emotional regulation framework (subjective/objective, spontaneous/structured) to categorize them if helpful. Note the intensity of the emotion.
 - Identify Patterns: Look for trends. Are there certain times, places, people, or types of challenges that consistently trigger particular emotional or thought patterns?. For example, do you consistently feel stressed before certain types of meetings, or frustrated when working on a specific kind of problem?.
 - Reflect & Plan: Based on the patterns, reflect on how these emotions and thoughts might be impacting your creative thinking or willingness to take creative risks. Brainstorm strategies (drawing on the emotional regulation tasks mentioned in sources, such as meditation, breathing, understanding components of issues, recognizing control, changing routines) you could use to manage these triggers and maintain a more open mindset.
- Optional AI Partnership: You can use generative AI to help you identify patterns if you keep a journal of your emotions and triggers. Provide AI with your journal entries and ask it to flag common emotions, triggers, or trends. You can also use AI to help you explore strategies for managing specific emotions by describing the emotion and asking for techniques, such as meditation or reframing

exercises. Remember that AI lacks genuine emotions and should not be considered a therapist.

By practicing finding your flow state and engaging in self-reflection to understand your inner creative landscape, you actively cultivate the self-awareness and emotional regulation necessary to enhance your creative capacity and accelerate creative velocity.

Day 5: Crafting Narratives & Embedding Creativity

Theme: Leverage storytelling to invigorate the imagination, challenge you to visualize various outcomes, and develop Narrative Intelligence. Story thinking involves understanding the world through cause-and-effect relationships. Making creativity a habit requires conscious effort and repetition.

Why it Helps: Storytelling helps in perspective-taking, reframing problems, understanding causality, and identifying tension and opportunities for innovation. Regularly practicing creative exercises helps build habits that enhance your creative velocity. Since context and environment play an important role in shaping narratives and understanding human experiences, world-building is a technique that provides a platform for exploring new constructs for actors and actions.

- **Exercise: Practice Six Word Stories.**
 1. **Instructions:** Craft short narratives using exactly six words.
 2. **Prompts:** Choose at least two of the provided prompts or create your own.
 - Darkness is permanent, sleep eludes me.
 - Found true love. Married someone else.
 - Bird in hand, none in nest.
 - Talking dog gets reality television show.
 - He dreamed big. She dreamed bigger.
 3. **Narrative:** For each six-word phrase, imagine at least two different narratives or synopses they could represent.
 4. **Reflect:** Consider how choosing different words or slightly altering the phrasing changes the potential narrative and the emotional impact. Think about how this exercise strengthens your ability to filter information and make meaningful choices.

Why it Helps: Six-word narratives act as cognitive workouts, strengthening mental abilities like filtering information and making meaningful choices. Storytelling is a core cognitive capability contributing to creative velocity. Embedding creative practices into habits helps sustain creative output.

- Exercise: WORLD BUILDING WITH GenAI (INDIVIDUAL)

This exercise uses GenAI as a collaborative partner to create a random set of variables for storytelling.

STEP 1: Set Up the Collaboration (2 minutes)

Provide your Gen AI partner with a single sentence context for the world you are building. For example, “We are imagining a world where autonomous vehicles are the norm;” or, “We are imagining a world where drones deliver anything and everything.” Consider the following themes as they exist in this new world.

1. Cultural
2. Legal
3. Political
4. Geographical
5. Environmental
6. Social
7. Historical

STEP 2: Divide the Work (<30 minutes total)

Pick three themes. You and AI alternate, creating two to three sentences as fragments of the narrative for each theme, building upon each addition. You will, therefore, instruct AI to continuously build upon each two to three-sentence entry you make with another two to three sentences. Spend no more than ten minutes per theme.

STEP 3: Rest Period (5-10 minutes)

Step away from the screen. Let the fragments simmer in your mind

STEP 4: Write Your Narrative (20-30 minutes)

Without the help of Generative AI, you will summarize a description of this new world by writing a 200-word narrative independently, weaving together at least two fragments. Resist the urge to ask the AI to write it for you. This is where your creative voice emerges.

STEP 5: Reflection (Optional, 5-10 minutes)

Ask the AI: "What themes or patterns do you notice in my narrative?"

Consider: What did the AI add that surprised you? What stands out about the idea after combining the themes?

- Optional AI Partnership: While AI can generate text, it struggles with the nuances, cultural awareness, and complex thought processes that drive human stories and emotions. When collaborating with AI on storytelling, human discernment is crucial to inject meaning, context, and authenticity. You can use AI to generate story fragments or explore variations, but the human role of curation, direction, and adding the "soul" remains essential.

By dedicating time each day to these exercises and reflecting on the process, you can actively work towards building your creative confidence and accelerating your creative velocity. Remember that consistency is key to forming new habits.