

NANO TOOLS FOR LEADERS®

BRAINWAVES TO BREAKTHROUGHS: FOSTER A CREATIVE CULTURE

Nano Tools for Leaders® are fast, effective leadership tools that you can learn and start using in less than 15 minutes—with the potential to significantly impact your success as a leader and the engagement and productivity of the people you lead.

GOAL

Apply neuroscience-based strategies to unlock innovative thinking, problem solving, and breakthrough ideas in yourself and your team.

NANO TOOL

Creativity is paramount for driving innovation, solving complex challenges, and enhancing employee engagement, regardless of industry. Whether you're leading a financial services firm or a health care organization, harnessing creative thinking can unlock new opportunities and elevate success. Neuroscience research reveals that creativity isn't just a mysterious talent; it's a trainable skill rooted in specific brain processes.

For businesses, it's worth developing that skill. A [study by Adobe and Forrester Consulting](#) revealed that creativity impacts growth and market share: creative companies' revenue growth dramatically outpaces that of their peers, and they also outpace competitors in market share and market leadership positions. Yet many leaders unknowingly stifle creative thinking—both in themselves and their teams—by emphasizing efficiency, structure, and risk avoidance. In fact, 61 percent of companies in the Adobe study reported that they are not creative.

Instead of the right brain/left brain myth (the notion that individuals are predominantly logical and analytical or creative and intuitive), which has been widely debunked by [neuroscientific research](#), creativity emerges from dynamic interactions between the brain's default mode network (DMN, responsible for imagination) and an opposing circuit that supports focus and routine task performance—the “frontoparietal attention network” (which means it lives in the front and sides of your brain). This circuit is most active when you are concentrating on a single task, especially rote ones like doing arithmetic or pushing buttons in response to prompts. Research shows that leaders who encourage both free thinking and structured reflection help teams toggle between these networks more effectively. Understanding how the brain generates novel ideas can help leaders create environments where breakthrough thinking thrives.

ACTION STEPS

Apply these neuroscience-backed strategies to fuel creativity in your leadership and teams:

- 1. Balance Focus and Free Thinking.** Start brainstorming sessions with open-ended exploration before narrowing ideas. Encourage teams to toggle between idea generation and critical thinking.
- 2. Diversify Inputs for Novel Ideas.** Expose your team to different industries, disciplines, and perspectives to enhance creative connections. Cross-pollination of ideas strengthens the brain's associative networks.



- 3. Reward Experimentation, Not Just Success.** Recognize bold ideas, even if they fail. This keeps the dopamine system engaged and encourages ongoing risk-taking.
- 4. Build Psychological Safety for Idea Sharing.** Teams that feel safe to voice unconventional thoughts are more innovative. Model openness by sharing your own creative failures and learning experiences.
- 5. Schedule Unstructured Time for Innovation.** Encourage walking meetings, downtime, and playful activities. Some of the best ideas emerge when the brain isn't actively trying to solve a problem.

HOW COMPANIES AND LEADERS USE IT

Each of the following practices blends structured processes with open-ended exploration—exactly the kind of balance that stimulates breakthrough thinking:

- **Pixar's "Plussing" Culture**
Pixar promotes creativity through a practice called "plussing," where team members build on each other's ideas by adding thoughtful enhancements rather than offering criticism. The structure of always adding something positive encourages deliberate reflection, while the freedom to iterate sparks spontaneous idea generation. The result: a culture where imaginative risks are supported by psychological safety.
- **Cirque du Soleil's Creative Cross-Pollination**
Cirque du Soleil deliberately brings together artists, athletes, musicians, and acrobats from vastly different backgrounds. This structured mix of disciplines creates fertile ground for free-flowing creativity. The design is intentional, but what emerges from their collaboration is often unexpected—a perfect example of structure enabling discovery.
- **Johnson & Johnson's "Storytelling for Innovation"**
By encouraging employees to frame health care challenges as stories, J&J provides a structure—narrative arcs, characters, emotional stakes—that helps teams reframe problems from a more human angle. That narrative frame opens up more expansive, imaginative thinking and invites out-of-the-box solutions grounded in empathy.
- **Lego's "Serious Play" Method**
Lego's method uses physical bricks to model solutions to business problems. The hands-on, rule-based nature of the activity provides structure, while the open-ended possibilities of what can be built stimulate lateral thinking and abstract reasoning. The result is creative engagement that's both grounded and generative.
- **IDEO's Empathy Field Trips**
IDEO sends teams into unfamiliar environments to observe people in their daily contexts. These field trips are highly intentional and guided by clear research goals (structure), but the insights they generate often come from unplanned discoveries and associative leaps (exploration). The practice sharpens observational skills while encouraging new mental connections.

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ABOUT NANO TOOLS

Nano Tools for Leaders® was conceived and developed by Deb Giffen, MCC, Director of Innovative Learning Solutions at Wharton Executive Education. It is jointly sponsored by Wharton Executive Education and Wharton's Center for Leadership and Change Management, Michael Useem, Director. Nano Tools Academic Director is Professor John Paul MacDuffie, Professor of Management at the Wharton School and Director of the Program on Vehicle and Mobility Innovation (PVMI) at Wharton's Mack Institute for Innovation Management.