

NANO TOOLS FOR LEADERS®

USING NEUROSCIENCE TO CREATE HIGH-PERFORMING TEAMS

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.

THE GOAL

Encourage and attain team chemistry through neuroscience.

NANO TOOL

It's interesting to try to figure out what that something is with U2, because we never talk about it... These fairly able musicians who together become way more than they could ever achieve on their own—that alchemy, there's something I would love to understand about it that I don't.

—**Bono**, in a *New York Times* interview

It's a perfect storm: just as senior leaders have become overwhelmed with demands and crises too numerous and powerful for any one person to contend with, a new study from Korn Ferry and Harvard finds that the majority of teams—which are so vital to business success—are ineffective.¹ And efforts to improve them, centering on “building chemistry,” are based on hypotheses and hunches; leaders have no real, tangible sense of how to encourage and attain true teamwork, defined as a blend of collaboration, coordination, and partnership.

Recent advancements in neuroscience now point to an answer: shared mindset. Linked to improved cooperation, information sharing, and overall team effectiveness, this critical ingredient has a neurobiological basis; when people cooperate well with one another, their patterns of neuronal activity (engagement of specific areas in the brain) and physiological processes (such as movement and perception) synchronize. A high degree of synchrony has important implications for team success, leading to increased prosocial behavior, subjective liking, empathy, engagement, processing speed, learning, and cooperation—in other words, it's the secret to shared mindset and chemistry. And neuroscience research suggests that we can act with precision and intention to achieve synchrony in teams.

ACTION STEPS

The seven science-based ideas below can be used alone or in combination to encourage and create an all-important shared mindset.

- 1. Eye contact:** Brain scans show that when people make eye contact, synchrony increases. When they look away, synchrony decreases. Eye contact activates the mirror neuron system and the cerebellum of the people engaged in

¹ The survey of 120 senior leadership teams used surveys, observed the teams as they worked, and interviewed stakeholders who received the output of the teams' work. They also worked with the teams over time to determine what it takes to make them effective, as well as how to help leaders and teams implement those elements.



social gaze. It helps prepare us to understand the actions and intentions of others. In fact, one study, led by Suzanne Dikker and David Poeppel, showed how two minutes of sustained eye contact between teachers and students in the classroom resulted in enhanced neural synchrony, higher engagement, and subsequent improvement in performance.

- 2. Shared purpose:** Identifying the group's purpose is one way to create common ground that transcends demographic or personal characteristics. By deliberately establishing shared purpose, leaders can maximize inclusivity, collaboration, and success.
- 3. Deeper conversations:** Wharton Neuroscience Initiative suggests using deep conversation [prompt cards](#) that encourage discussion of meaningful, values-based topics, cutting through the standard surface-level chat to create more substantial connections faster.
- 4. More time together:** Trust and affection tend to increase when you share someone's company more often. Research from Gallup confirms a relationship between turnover and team performance: when team members feel more interconnected, they have almost 60 percent less turnover and score in the top 20 percent for engagement. Research from MIT-Sloan shows that company-organized social events, such as happy hours and team-building excursions, are associated with higher rates of retention. Neuroscience studies also show that the more time people spend with one another, the greater synchrony they exhibit.
- 5. Personal gratitude:** Letting someone know how much you appreciate them can increase prosocial feelings on both sides—the person expressing the gratitude gets the same boost in happiness as the person receiving it. As a leader, make a point of expressing gratitude to your team.
- 6. Music:** Listening to music has been shown to increase oxytocin levels, thereby improving mood, motivation, and the ability to create bonds with others. Whether a meeting is virtual or in-person, team leaders can consider having music playing before a meeting starts as people enter the space.
- 7. Find and leverage “chemistry creators”:** Laboratory research corroborates the existence of chemistry creators and the impact they have on the levels of team synchrony. These people influence the degree of synchrony a team experiences by how much they talk in a group setting. When these people talk, there is greater inter-brain synchrony across the group.

HOW LEADERS USE IT

Colleen Maleski, former director for network advancement at Strive Together, a national organization that works to improve outcomes for children “from cradle to career,” uses music to generate better meeting outcomes. This [blog post](#) outlines her approach, specific music, and results, showing how “the right music can impact the mood and energy of a room of participants, translating to a greater fervor and enthusiasm for the task at hand—and ideally to achieving the group's results.”

Matt Richards, associate dean of students and director of athletics at Southern Maine Community College, says his record as the school's winningest coach is due to his ability to find and encourage chemistry creators—individuals who raise the level of synchrony in a group. A losing season early in his career led him to understand that although he had a talented team and “focused a lot on recruitment, practice preparation, player evaluations, scouting, and film breakdown,” he “never took the time to define what our team was about and mesh personalities.” The next season, he focused on finding and rewarding chemistry creators, explaining what these key team members do and say, while also discouraging what he terms “energy suckers.” “Along with bolstering actions associated with chemistry creators, you have to be on the lookout for energy-sucking behavior,” Richards says. “When you spot it, correct it immediately.”

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KNOWLEDGE IN ACTION: RELATED EXECUTIVE EDUCATION PROGRAMS

[*The Neuroscience of Business: Innovations in Leadership and Strategic Decisions*](#); [*Becoming a Leader of Leaders: Pathways for Success*](#); [*General Management Program*](#)

ABOUT NANO TOOLS

Nano Tools for Leaders® was conceived and developed by Deb Giffen, MCC, director of Custom Programs at Wharton Executive Education. *Nano Tools for Leaders®* is a collaboration between joint sponsors Wharton Executive Education and Wharton's Center for Leadership and Change Management. This collaboration is led by Professors Michael Useem and John Paul MacDuffie.