

THINKING TOOL 2: SIX THINKING HATS

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This module introduces the concept and thinking tool of parallel thinking or Edward Debono's 6 Thinking Hats. This section introduces the skill of taking multiple perspectives when attempting to solve a problem or plan an action.

Learning objectives:

1. **Explain** what Parallel Thinking is and how it helps build critical thinking skills.
2. **Describe** the perspective one takes with each of the colored hats.
3. Given character's perspectives, **identify** which Thinking Hat they're wearing/using.
4. **Identify** how hats are used in an example thinking session.
5. **Apply** the Parallel Thinking perspectives on one's own issue, dilemma or needed decision.

WHAT IS PARALLEL THINKING?

That saying two heads is better than one may ring true when you're trying to solve a problem, but imagine the problem solving power with six heads or in this case hats. Parallel thinking allows you to approach a problem with six different perspectives.

Select each of the colored hats to find out which perspective is engaged when someone is assigned the hat.



- **White Hat (The Data Analyst):** Focuses on neutral, objective facts and figures, identifying what information is known and what is missing.



See the slide notes for all hat descriptions

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- **Red Hat (The Intuitive):** Allows for the expression of emotions, hunches, and gut feelings without the need for justification or logic.
- **Black Hat (The Risk Assessor):** Acts as the "devil's advocate" to identify potential risks, difficulties, and why a suggestion might not work.
- **Yellow Hat (The Opportunity Seeker):** Deliberately searches for benefits, values, and feasibility in an idea.
- **Green Hat (The Innovator):** Focuses on creativity, "out-of-the-box" solutions, and generating radical alternatives.
- **Blue Hat (The Conductor):** Manages the thinking process, sets the agenda, and translates results into actionable steps.

HOW PARALLEL THINKING WORKS

Take a quick look at an example that illustrates each of the thinking hats. Select the image to see a larger version.



About wearing these hats:

Note, although in the example shared here, individual characters are assigned these roles, in real life, anyone can and should take these perspectives at any time. For example, you can adopt each of the perspectives or hats when solving a problem on your own.



Note: The larger version is on the next slide.

6 THINKING HATS IN SUMMARY



PARALLEL THINKING AND THE 5 GENERALS IN DR. STONE

In *Dr. Stone*, the Five Wise Generals (Senku, Chrome, Ryusui, Gen, and Ukyo) form the core decision-making body of the Kingdom of Science. While they don't explicitly name Edward de Bono's 6 Thinking Hats, their collaborative dynamic is a perfect masterclass in how Parallel Thinking functions in a high-stakes environment. Rather than arguing against each other, they unconsciously rotate through the hats to solve complex problems, build timelines, and mitigate risks.

In this depiction, Kohaku (also known as the lioness) is added as the red-hat thinker who focuses on matters of the heart and emotion. Select each character to learn why they wear their hat.



What is Dr. Stone?



Note: Button opens up popup w/text in slide notes. By dividing these roles cleanly, the Kingdom of Science functions like a single, highly optimized brain trust, turning impossible tasks into manageable, structured realities. But again, in real life, anyone can take any of the roles or perspectives to have a well balanced perspective. Flow example: Objective Data (Senku) → Lateral Ideation (Gen) → Value Design (Ryusui) → Safety Review (Ukyo) → Process Management (Chrome) → Kinetic Execution (Kohaku)

Dr. Stone: Rebuilding Civilization Through Science

Dr. Stone is a critically acclaimed anime and manga series that begins with a breathtaking, apocalyptic premise: a mysterious, blinding green light sweeps across the Earth, instantly petrifying all of humanity into stone. Three thousand seven hundred years later, a brilliant, hyper-logical high school genius named Senku Ishigami breaks free from his stone shell to find that nature has completely reclaimed the planet, erasing all traces of modern infrastructure, technology, and civilization. Rather than despairing in this primitive new world, Senku vows to use his encyclopedic, raw knowledge of physics, chemistry, biology, and engineering to rebuild human society from the ground up, embarking on an epic quest to revive the rest of petrified humanity and restore modern technology—ultimately culminating in a scientific race to construct an orbital rocket.

The series serves as an exceptional educational model for critical and parallel thinking because the monumental task of rebuilding civilization cannot be accomplished by a single genius alone. The "Kingdom of Science" succeeds by organizing its characters into a highly collaborative brain trust where different cognitive perspectives—perfectly mirroring Edward de Bono's Six Thinking Hats—are valued equally and applied systematically. Instead of engaging in destructive, adversarial debates, the characters practice parallel thinking: Senku provides the hard empirical data (White Hat), while his allies contribute essential lateral problem-solving (Green Hat), risk and safety mitigation (Black Hat), economic viability and scaling (Yellow Hat), and raw emotional drive (Red Hat). By shifting their collective focus dynamically to tackle complex bottlenecks—such as balancing the logistical, security, and agricultural risks of expanding their labor force—they demonstrate how cognitive diversity and structured, critical collaboration turn seemingly impossible hurdles into manageable, step-by-step realities.

SELECT EACH DOCTOR STONE CHARACTER TO UNDERSTAND WHY THEY WEAR THE HAT



Senku Ishigami - White Hat Thinker

The White Hat is entirely objective, dealing strictly with hard facts, figures, historical data, and verifiable information. It contains no room for emotional bias, speculation, or wishful thinking.

Senku is the absolute embodiment of the White Hat. Faced with a world frozen in stone for 3,700 years, he does not panic or mourn; instead, he counts the seconds (\$116,427,065,921\$ seconds, to be exact) to keep an accurate temporal baseline.

- **Empirical Thinking:** When diagnosing petrification, Senku isolates the chemical reaction of nitric acid (HNO_3) and alcohol ($\text{C}_2\text{H}_5\text{OH}$) as the solvent, approaching the problem with pure biochemical calculations.
- **Neutrality:** He views everything through a lens of natural law. Even when dealing with dangerous enemies, his assessments of their physical capabilities and tactical threats are calculated mathematically, devoid of personal resentment.



Slide notes contain each of the hat alignment.

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Kohaku - Red Hat Thinker

The Red Hat represents the domain of raw emotion, gut feelings, intuition, and non-rational drives. It requires no justification, logic, or data to validate its feelings.

While characters like Taiju represent the emotionally expressive side of the Red Hat, Kohaku represents its **pure instinctual and intuitive** side.

- **The Beast Instinct:** Kohaku possesses literal "beast-like" physical instincts. In combat or survival scenarios, she does not calculate angles or wind speeds mathematically; she acts on pure, lightning-fast physical intuition.
- **Instant Judgements of Character:** Kohaku's relationship with Senku begins entirely because of a Red Hat gut feeling. She observes his selflessness while trying to save her, instantly deciding to trust him despite his physically weak and suspicious appearance.

Ukyo - Black Hat Thinker

- survival strategies do not lead to unnecessary casualties.
- **Tactical Warning System:** Ukyo uses his hyper-sensitive hearing to assess enemy movements and structural weaknesses, proactively pointing out where the Kingdom of Science is exposed to ambush or sabotage before they commit to an offensive strategy.

Ryusui Nanami - Yellow Hat Thinker

The Yellow Hat is positive, constructive, and forward-looking. It seeks out opportunities, economic value, feasibility, and benefits. While the Black Hat looks at risks, the Yellow Hat looks at how an idea can be scaled up to enrich the system.

Ryusui, the revived heir of the Nanami Conglomerate, is the driving economic force of the new world. Where others see obstacles, Ryusui sees potential, trade, and expansion.

- **Constructive Greed:** His famous catchphrase, "*Desire is noble!*", is a testament to his Yellow Hat philosophy. He reframes basic human desire not as a flaw, but as the primary engine for industrial progress.
- **Feasibility & Scaling:** Ryusui is the one who realizes that to cross the ocean, they cannot just build a raft; they must build a massive steel ship, establish a currency system (\$Dragos\$), and restart global logistics. He coordinates the resources to make those dreams highly feasible.

Gen Asagiri - The Green Hat Thinker

The Green Hat represents creative thinking, alternatives, and lateral jumps. While Chrome approaches creativity through physical elements and raw curiosity, Gen represents creativity in the form of **social engineering**.

- **Improvising Under Pressure:** When Tsukasa's army is closing in, the logical (White Hat) outcome is defeat. Gen laterally invents a psychological illusion: mimicking the voice of Lillian Weinberg to trick the enemy soldiers into believing the US military is rebuilt. This is a massive, highly creative lateral jump.
- **Social Alchemy:** Gen "invents" desires. He takes Senku's physical creations (like cola or cotton candy) and creatively designs social narratives around them to manipulate greedy characters like Ryusui or motivate the villagers. He treats human behavior as his creative sandbox.

Chrome - Blue Process Manager or Leadership Thinker

The Blue Hat is the coordinator who keeps the master plan on track. It does not focus on the content of the problem, but on the *process* of thinking, organizing, and executing.

While Chrome starts the series as a wild, experimental Green Hat, he undergoes an incredible character arc where he is forced to grow into a Blue Hat process leader whenever Senku is captured or out of commission.

- **Structuring the Science:** During the Treasure Island and South America arcs, Chrome has to step up. He stops merely suggesting wild ideas and starts organizing the roadmap. He maps out the chemical pathways, delegates tasks to the physically strong characters, and keeps the group unified toward a single strategic milestone.
- **Translating Complex Ideas:** Like a true project manager, Chrome learns to synthesize Senku's incredibly dense instructions into manageable, step-by-step checklists that the rest of the crew can actually execute.

LET'S SEE OUR GENERALS IN ACTION

Let's listen to a conversation where the generals decide how to plan to revive a workforce for building Senku's rocket to the moon..



Listen now



Go to this link for the script:

<https://docs.google.com/document/d/1Tl7rWm0zLI60feSSIXP0tBIk0gz0xJzikIBKTFGkuMk/edit?usp=sharing>

Drag the color hat that best describes the statement of the character.

Kingdom of Science

Lunar rocket team

Rocket blueprints

Project resources

Hat Color

TEAM CHAT

Ishigami Senku
The math is straightforward. To assemble the solid-fuel booster, we are looking at roughly \$1.5 times 10x5 man-hours of high-precision labor. We must scale our workforce by at least 400% to hit our launch window.

Ryusui Nanimi
Desire is noble! A classic industrial scaling problem has a simple capitalist solution: revive the old-world elites, establish our currency (Dragos), and watch the factory floors assemble themselves overnight!

Kohaku
Beyond the analytical planning, my gut tells me we are approaching this entire selection process backward. We don't need a crowd of selfish strangers right now. We need an emotional anchor. We need trusted, unyielding hearts first.

Asagiri Gen
Let's think a bit more broadly. If we revive the reporter Minami first, her data will lead us to the petrification coordinates of a legendary chef. Five-star meals trigger huge dopamine loops; they will beg to work just to stay in our village!

Ukyo Saionji Ukyo
Let's think a bit more broadly. If we revive the reporter Minami first, her data will lead us to the "If we revive fifty high-strung, greedy modern workers all at once, we face a massive security and resource risk. How do we feed them? If we bring back the wrong people first, we'll have a civil war before we ever mix the rocket fuel.

Chrome
That's brilliant! We use psychological social engineering to bypass physical constraints. The roadmap is officially: Revive Reporter → Locate Chef → Scale Labor. Let's write this sequence down!

← →

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Why the hat fits:

Senku - WHITE HAT - **Why this Hat fits:** Senku ignores the emotional anxiety of the task and focuses entirely on the physical metrics, hours, and math required to hit the launch baseline.

Ryusui - YELLOW HAT - **Why this Hat fits:** Ryusui focuses on exponential growth, motivation, and positive value. He reframes human greed as a constructive, optimistic engine to build the rocket in record time.

Kohaku - RED HAT - **Why this Hat fits:** Kohaku rejects cold metrics and relies on her intuitive character assessment ("gut feeling") to argue that trust and loyalty must come before industrial efficiency.

Asagiri Gen - GREEN HAT - **Why this Hat fits:** Gen utilizes lateral thinking. Rather than trying to force workers physically or pay them, he takes a psychological detour to trick their reward loops into wanting to work.

Ukyo - BLACK HAT - **Why this Hat fits:** Ukyo serves as the critical safety check. He identifies logical fallacies, physical resource limits (food supply), and potential social vulnerabilities (civil war).

Chrome - BLUE HAT - **Why this Hat fits:** Chrome coordinates and synthesizes the conversation. He doesn't invent the ideas; he maps the workflow on the blackboard, sequences the tasks, and sets the operational agenda.

[Start the quiz](#)

Based on what you've learned about Parallel Thinking and the 6 Thinking Hats, take a quiz that checks on the skills used by each of the Dr. Stone Generals.



Link to Quiz Question:

https://docs.google.com/document/d/1vx4M-900pJFUTOVgdLh_7XlWJy8cHAsNYu1tZNAAhyc/edit?usp=sharing

Now You Try It - Quick Project



Objective: Apply the 6 Hats to a highly relatable personal decision, such as buying a new gaming console, upgrading a PC, or choosing a high school elective.

Result: A simple visual matrix (6 by 2) where you analyze your decision through all six colors:

- *White:* Cost, performance metrics, storage size.
- *Black:* What chores/saving will this force me to do? Will it cut into my sleep?
- *Yellow:* Access to exclusive games, playing with friends, career prep skills.
- *Red:* Pure gut feeling—does this console actually excite me?
- *Green:* What options do I have? Alternative choices?

See matrix example



Learner has the opportunity to apply the 6 thinking hats to their own issue, dilemma or needed decision. They can also reflect on how helpful parallel thinking is.

NOW YOU TRY IT - QUICK PROJECT

Hat	Rationale or Info
White	
Black	
Yellow	
Red	
Green	
Blue	

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Close matrix example



This is an example of a table that learners can build on their own. A pdf form of the table can also be shared with the learner. Though it's better that they build it themselves.