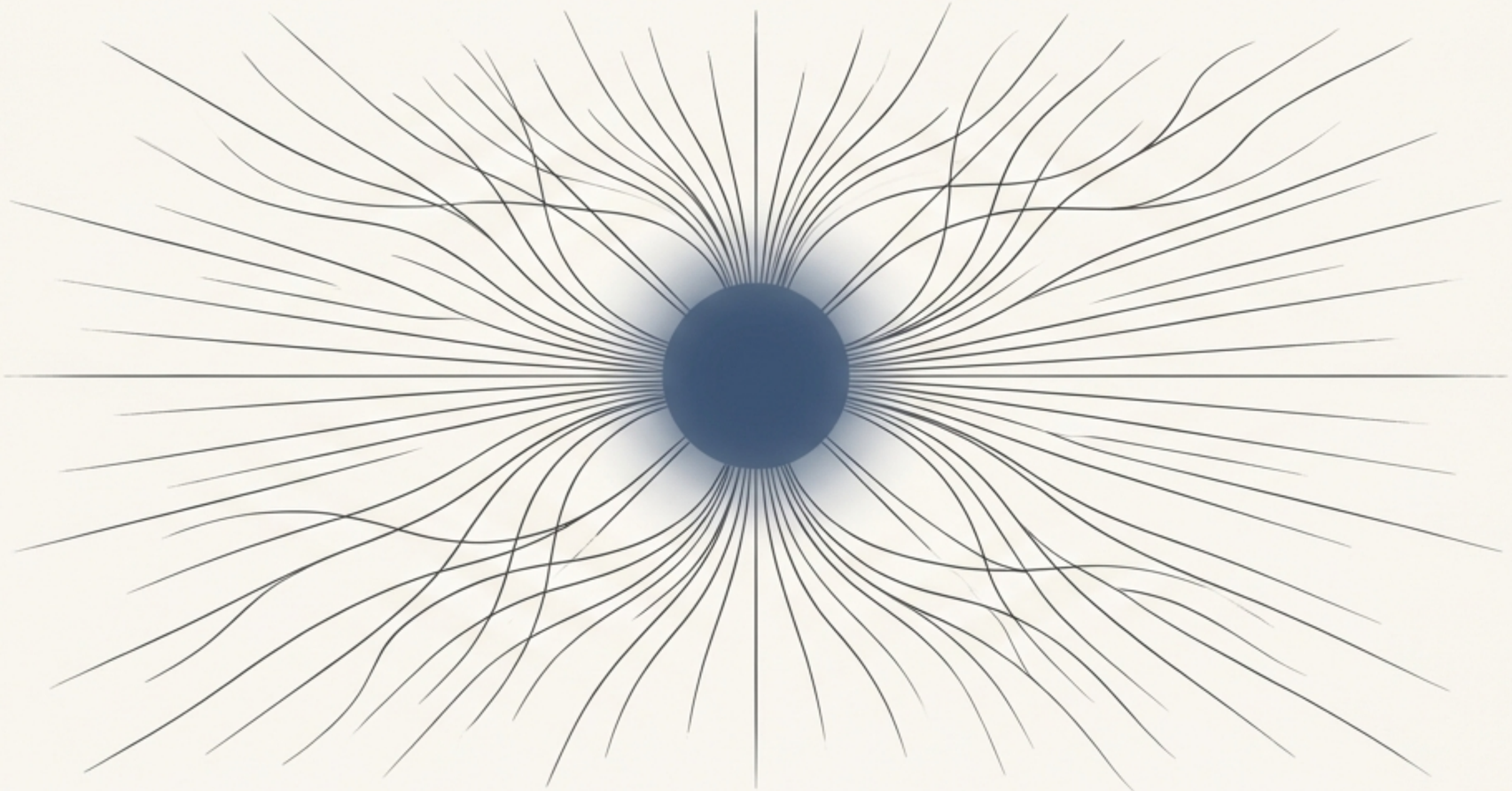
Making Thinking Visible



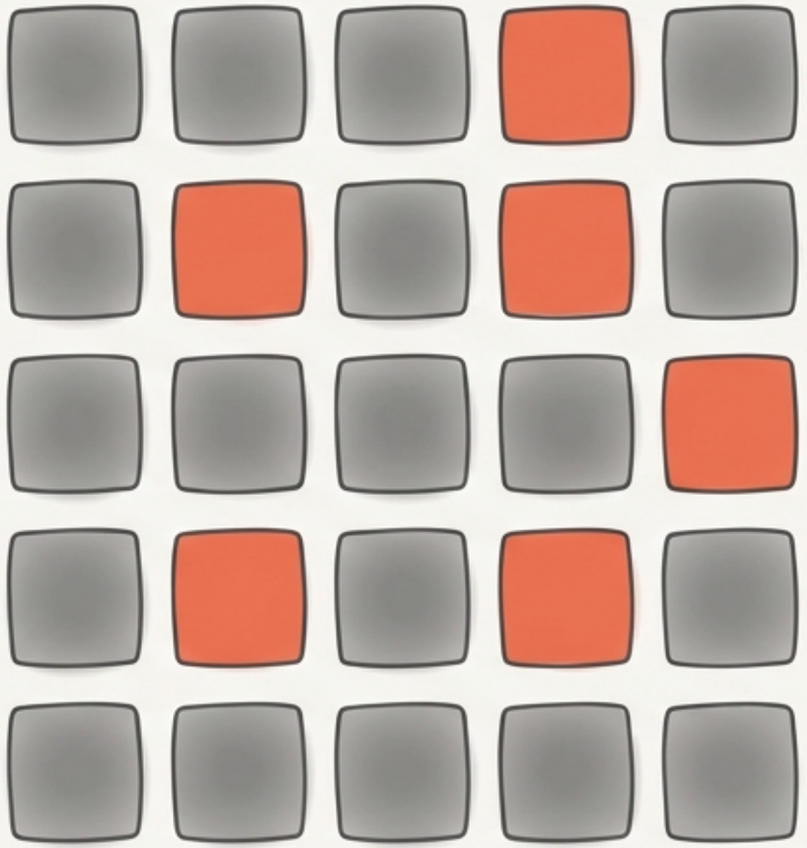
A Strategic Protocol for the Mini Whiteboard

How do we know what every student is thinking, right now?

The daily challenge for every educator is to move beyond assumptions and gain a true snapshot of understanding across the entire class.

Without a clear view into every student's thinking, it's difficult to:

- Identify and address common misconceptions instantly.
- Ensure every student is cognitively engaged.
- Make informed, responsive decisions about the next teaching step.



A Protocol for Participation, Assessment, and Confidence

The mini whiteboard protocol transforms a simple tool into a powerful instrument for responsive teaching. Its strategic use delivers three key benefits:

Maximum Participation

Every student is expected to respond, creating total engagement.

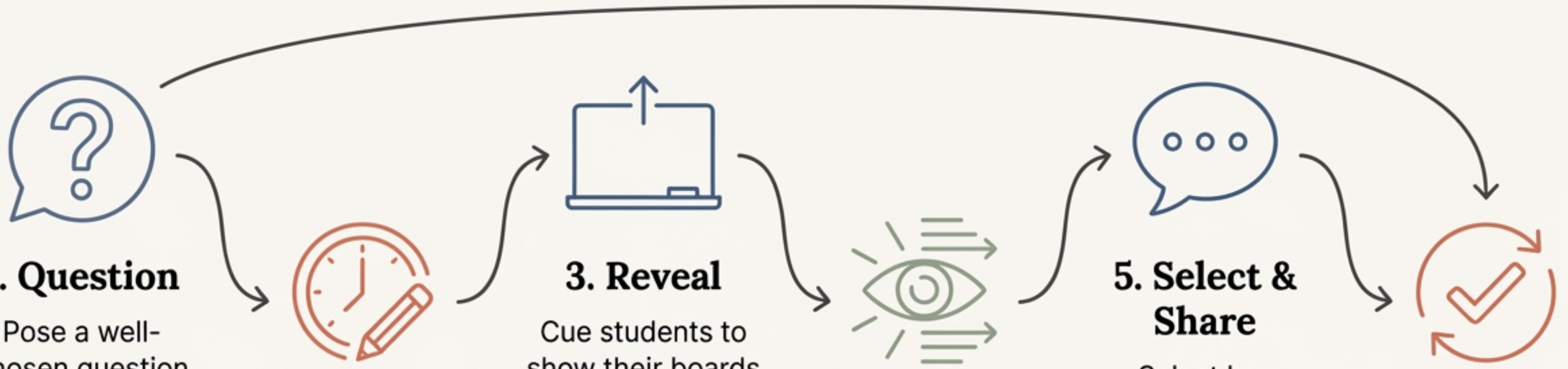
Instant Insight

Patterns of understanding and misconceptions become immediately visible.

Supports Confidence

The principle of ‘private drafting, public reveal' provides a safe environment for all students to attempt an answer.

The Core Routine: A Six-Step Cycle



1. Question

Pose a well-chosen question with clear success criteria.

2. Think & Write

Provide timed thinking and writing.

3. Reveal

Cue students to show their boards on a count.

4. Scan

Rapidly scan all responses for patterns.

5. Select & Share

Select key examples (strong, almost, misconception) to discuss.

6. Refine

Provide feedback and allow students to improve their answers.

Two Applications of a Single Protocol

The core routine can be adapted for distinct pedagogical purposes. We will explore the specific craft for both the teacher and student in two key scenarios.

Application 1: Checking for Quick Recall

Assessing knowledge students should have at their 'fingertips'. Focus is on pace, accuracy, and identifying insecure knowledge.

Application 2: Eliciting Deeper Thinking

Supporting application, planning, and exploratory thinking. Focus is on process, connections, and making cognitive effort visible.

Protocol in Action: Checking for Quick Recall

The Preparation Phase: Setting the Stage for Success

The Teacher's Craft

- **Boards Out:** Direct students to take out boards, stored close to hand.
- **Choose Questions Carefully:** Select questions that target specific "hinge" knowledge to inform your next step.
- **Expect Best Thinking:** Insist on attention and remind students to write in LARGE, CLEAR letters. Every student must provide an answer or a '?'.
- **Set Response Time:** Be explicit about the seconds allowed to encourage pace and recall.

The Student's Experience

- **Boards Out:** Take a board and pen as soon as asked.
- **Be Ready:** Look at the teacher and listen attentively to the question.
- **Concentrate:** Prepare to do your best remembering.
- **Know the Time:** Understand how much time you have to think and write.

Protocol in Action: Checking for Quick Recall

The Thinking & Response: Private Drafting, Public Reveal

The Teacher's Craft

- **'Go':** Initiate the thinking time clearly.
- **Circulate:** Visit specific students who may need encouragement to engage.
- **Countdown:** Use a clear, paced countdown: "3, 2, 1... Show me your boards." Insist students wait for "1".
- **Ensure All Respond:** Prompt any student who hasn't shown a board. Ensure no boards are blank.

The Student's Experience

- **Think Hard:** Use the time well to remember the knowledge needed.
- **Write Clearly:** Write or draw the answer so it is easily visible.
- **Self-Check:** Ask yourself: "Have I done what was asked?" and "Is this my best thinking?"
- **Hold Board Up:** On '1", hold the board still, just below the chin.

Protocol in Action: Checking for Quick Recall

The Feedback Loop: Scan, Respond, and Refine

The Teacher's Craft

- **Scan for Patterns:** Look for common wrong answers first. Narrate what you see: "I'm seeing lots of ___; that tells me..."
- **Provide Feedback:** Give whole-class feedback for students to self-check against.
- **A Powerful Technique:** "Rub out the questions you get right... hold your boards up again." This quickly reveals trends of insecure knowledge.
- **Decide Next Step:** Use the data to reteach, amend, or ask extension questions.

The Student's Experience

- **Keep Board Up:** Hold the board still while the teacher reads all responses.
- **Listen & Self-Reflect:** Compare your answer to the teacher's feedback. Do you understand why you were right or wrong?
- **Filter & Re-Show:** Rub out correct answers and hold the board up again when asked.
- **Prepare for Next Step:** Be ready for the teacher's next move.

Preparation: Creating Space for Deeper Cognition

The Teacher's Craft

- **Frame the Task**: Share a carefully chosen question or task that targets cognitive connections and application.
- **Explain the 'Why'**: Ensure students know what they will use their thoughts for next.
- **Set Thinking Time**: Set a specific number of minutes and share clear criteria to consider.
- **Nurture Best Thinking**: Encourage exploratory, 'messy' thinking in the 'Learning Pit'.

The Student's Experience

- **Ready for Thinking**: Listen attentively to the task and prepare for sustained cognitive effort.
- **Understand the Goal**: Know how this thinking time connects to the next stage of learning.
- **Use the Time Well**: Prepare to use the minutes to connect relevant thoughts.
- **Embrace the Process**: Understand that initial thoughts can be organised later.

Protocol in Action: Eliciting Deeper Thinking

The Productive Struggle: Making the Thinking Process Visible

The Teacher's Craft

- **Circulate and Observe:** Read notes on boards, listen to partner talk, and observe thinking habits.
- **Don't Steal the Struggle:** Avoid intervening too early. Add a prompt only for students who are stuck for a longer period.
- **Sieve the Information:** Notice patterns of thinking or misunderstanding to inform your next steps.
- **Give a Time Cue:** With one minute to go, prompt students to summarise their thoughts.

The Student's Experience

- **Connect Ideas:** Think hard, draw on all knowledge, and connect relevant thoughts.
- **Draft and Organise:** Write or draw thoughts to organise them as your answer takes shape.
- **Self-Check:** Look at the task again. Check how your thoughts are connecting.
- **Summarise:** Draw your thoughts towards an overall summary on your board.

Protocol in Action: Eliciting Deeper Thinking

Response and Consolidation: From Thoughts to Understanding

The Teacher's Craft

- **Ask Targeted Questions:** Probe student responses further to share pertinent thoughts with the class.
- **Provide Whole-Class Feedback:** Allow all students to self-check their thinking against your input and exemplars.
- **Decide Next Step:** Choose to reteach, move learning on, or have students commit their thinking to writing or speech to consolidate it.

The Student's Experience

- **Share Your Thinking:** Be ready to share with the teacher as they circulate or with a partner.
- **Listen and Self-Reflect:** Compare your thinking to the feedback. Did you use the correct knowledge? Did you connect ideas differently from others?
- **Understand How to Improve:** Reflect on how to fix or enhance your planning and thinking.

From Routine to Mastery: Core Pedagogical Principles

“1. Private Drafting, Public Reveal”

This foundational principle builds the psychological safety required for all students to participate without fear of failure.

“2. Don’t Steal the Struggle”

Effective intervention is about prompting, not providing answers. Allowing for “thinking time” and even “messy’ exploration in the ‘Learning Pit’ builds student resilience and deeper cognition.

“3. Hinge Questions are Key”

The quality of information you receive is determined by the quality of your questions. They must be deliberately chosen to tease out misconceptions and inform your next teaching steps.

Common Mistakes and Strategic Refinements

Common Mistakes

**Mistake*: No success criteria are shared for the question.
Result: Messy, vague, or incomplete student responses.

**Mistake*: Allowing students to hold boards up early or at different times.
Result: Copying increases and honest assessment is compromised.

**Mistake*: Intervening too quickly during deeper thinking tasks.
Result: The productive struggle is stolen, and learning is superficial.

Strategic Refinements

**Refinement*: Always state what a good answer looks like before students begin.

**Refinement*: Insist on a single, timed countdown ('3, 2, 1...') for a simultaneous, public reveal.

**Refinement*: When scanning, look for common wrong answers first to quickly gauge class understanding. Narrate patterns to the class.

The goal is not to use whiteboards. The goal is to create a classroom where every student is...

...ever ready to share their thinking.