

- For any teacher who leads a class or group discussion

CLASSROOM TALK

Four Moves That Deepen Discussion

A US science-classroom guide, built on decades of talk research; the same prompts are meant for any subject, any classroom.

When a learner gives you a thin, one-word answer, what's your very next move: fill the silence, or wait it out?

A widely used classroom-talk guide distills decades of research into nine practical prompts for deepening discussion. Four of the simplest to start with: pause longer, ask for reasoning, invite a learner to add on, and check you've understood by restating it back.

● ● ● Evidence: Promising

UK classroom trials across subjects, reporting learner outcomes, effect sizes and precision for all four moves, would test the primer's broad claims.



WHAT HAPPENED

Nine prompts, built for one purpose: deeper thinking

Sarah Michaels and Cathy O'Connor's *Talk Science Primer* distills twenty years of classroom-discourse research into nine practical "talk moves", sorted under four goals: helping learners share their thinking, listen to each other, deepen their reasoning, and build on each other's ideas. Four of the nine are the easiest for any teacher to start with. The most researched of them, Wait Time, comes with the primer's one hard number: pausing three seconds or more after a question changed not just how long learners took to start, but what they actually said.

A composite example from the primer (built from real lesson video, using learners' own words): Add On, then Wait Time

Teacher: "So who wants to add on here? Tell us why you agree or disagree with Jashida, Mathais, or Flaver."

[Ms B. gives 17 seconds of Wait Time for more hands to go up. Finally, Felicia, an EAL learner who rarely talks, raises her hand.]

Felicia: "I think when you put the plasticine inside the water, the water will rise because the volume of the plastic is big and this is small... And I used to think it was weight that made water rise... but now I know that it's really volume."

A quick pause before calling on someone
(a second or less)

3 seconds or more of Wait Time

+300 to +700% longer answers

Across many classrooms and subjects, increasing the pause after a question to three seconds or more changed four things at once: learners' answers grew 300% to 700% longer, they explained their thinking with more evidence, they asked more questions themselves, and they talked to each other more, not just to the teacher (Michaels & O'Connor, 2012, citing Rowe, 1986). No confidence interval is given for this range in the primer.

Four moves worth starting with

1

Wait Time

Pause 3-5 seconds after asking, and again after a learner answers.

2

Press for reasoning

"Why do you think that?" "What's your evidence?"

3

Add On

"Who can add onto the idea that Jamal is building?"

4

"So, are you saying...?"

Repeat a learner's point back and ask them to confirm it.

Across your subjects and classes

This primer describes a fourth-grade US science classroom. These are sensible ways the same four prompts could work in other subjects and key stages: worth trying, not separately proven for your subject or your class.

Subject	How the pattern could apply
English / Literacy	After a learner interprets a line or a character's choice, try "So, are you saying...?" to check you've understood before offering your own reading.
Maths	When a learner explains a method, press for reasoning ("How did you get that answer?") before confirming right or wrong.
Humanities	Invite a learner to add on to a classmate's interpretation of a source or event, rather than moving straight to the next question.
Science	The primer's own subject: pause three seconds or more after a question, then let learners add on to each other's explanations before you step in.

Adapting by class

Quieter classes

Start with Wait Time: 3-5 seconds of silence gives a nervous hand time to go up, without singling anyone out.

EAL / additional needs

The primer specifically flags Wait Time as helpful for English-as-an-additional-language learners, giving more time to formulate an answer.

Livelier classes

"Press for reasoning" channels energy into one voice at a time: ask for evidence rather than just an opinion.

Mixed attainment

"So, are you saying...?" lets a learner correct or clarify a half-formed idea in front of the class, without it being marked wrong.

Start with one: next lesson, after you ask a question, silently count to three before calling on anyone. That's the whole of Wait Time, the lowest-friction move and the primer's own most-researched one.

A widely used guide, not a single controlled trial

Developing

This rates the evidence's firmness, not our endorsement. A widely used synthesis of decades of classroom-talk research, not a new study with its own sample or control group, carrying one precisely quantified finding and three moves offered as well-established practice.

- This is a synthesis and practitioner guide, built on "research over the past 20 years", not a new study with its own sample or control group. Only Wait Time comes with a specific number attached.
- The one number given, answers growing 300% to 700% longer, is credited to Mary Budd Rowe's 1986 research as cited by the primer; no confidence interval or study sample size is given for it here.
- It's a US guide written for science lessons. The primer itself says the moves work "in any subject domain", but that breadth claim isn't tested against UK classrooms in this document.

What that means for you: worth building as a low-cost habit, especially Wait Time, which needs no new phrasing, just a longer pause. Treat the other three moves as sensible, well-established prompts to try, not a guaranteed formula.

TRY IT THIS WEEK

Your first small step

THIS WEEK

After your next question, silently count to three before calling on anyone. That's Wait Time, the primer's most researched move, and the easiest to start tonight.

Try it and watch: notice whether a learner who doesn't usually put their hand up does, once they know they'll actually get the time. That's your own evidence, not ours.

Go deeper

Our oracy tools · structural-learning.com/oracy

Open a free account

app.structural-learning.com/register

Structural Learning · evidence without the hype.