

For primary teachers, especially Years 5 and 6

CLASSROOM TALK

Talk that **builds** on ideas

A research briefing for teachers. 144 videoed lessons in 72 English primary classrooms.

When a learner disagrees with a classmate's answer, or is invited to build on it, what happens to the rest of the lesson?

In this large England study, classes where teachers and learners built on and questioned each other's ideas scored higher on maths and grammar tests, when participation was broad. Reading findings were weaker or mixed. No significant positive association was found for science or reasoning.

Evidence: Developing

A controlled trial and independent replication would provide stronger evidence of cause and wider applicability.



WHAT HAPPENED

Building on ideas was associated with higher scores

Researchers at Cambridge video-recorded two lessons each in 72 English primary classrooms (48 schools, mostly Year 6), covering maths, literacy and science. They coded every turn of teacher-learner talk, then matched the patterns against learners' scores on national tests months later, allowing for prior attainment and other classroom factors. Building on and questioning contributions was positively associated with maths and grammar scores when participation was broad. This observational study cannot establish causation.

A teacher-created example, not a quotation from the study

Learner: I think this method works because...

Teacher: Who can build on that idea, or question the reasoning?

Another learner: I agree with the method, but I would change...

The pattern in the maths scores

Estimated marginal mean end-of-year maths scores, adjusted for prior attainment.

Above- and below-average groups from Howe et al. (2019), Table 6.

Higher scores describe an association.

They do not show that talk caused the difference.

Participation	Below-average building-on and questioning talk	Above-average building-on and questioning talk
Below average	104.81	104.57
Above average	103.64	107.68

Maths outcome data came from 61 classes (1,573 learners). Clearer positive associations appeared for maths and grammar, punctuation and spelling. Reading findings were weaker or mixed. Science and reasoning showed no significant positive association. Higher participation does not mean every learner must speak in every exchange.

Two moves to try

1 Invite building on

Ask who would like to add to, agree with, or build on what a classmate just said, instead of moving straight to the next question.

2 Make room to disagree

Let learners voice doubt or partial disagreement with a statement, rather than only accepting agreement.

Across your subjects and classes

This is one study of Year 5 and 6 classrooms in England, tested in maths, literacy and science lessons. These are sensible ways the same two moves could work across your school: worth trying, not separately proven for your subject or your class.

Subject	How the pattern could apply
Maths	After a learner explains their method, ask who would like to build on it or try it a different way, before moving to a new example.
Literacy / English	When a learner offers a reading of a text, invite another learner to add to it or question it, rather than confirming right or wrong straight away.
Science	No significant positive association with science scores was found. An adaptation to explore, rather than an established science intervention: ask who agrees, disagrees, or can add a reason, before revealing the answer.

Adapting by class

Quieter classes

Give learners time to prepare a thought with a partner. Invite contributions without requiring an immediate public answer.

Mixed prior attainment

The study statistically allowed for learners' starting maths and reading scores, but this does not establish that every attainment group benefits equally.

Livelier classes

Use "do you agree, or see it differently?" to channel energy into one voice at a time, rather than general chatter.

EAL / additional needs

Offer thinking time and a short prompt. Allow an idea to be shared aloud, in writing or through a partner, as appropriate.

Start with one: next lesson, after a learner gives a good answer, ask "Who'd like to build on that, or does anyone see it differently?", then wait for at least one more voice before moving on.

A big, careful study, not a randomised trial

Developing

This rates the evidence's firmness, not our endorsement. A large, well-controlled classroom study, but a correlational one: no random assignment, and the pattern held for only some of the six outcomes measured.

- This is one large study, not a stack of them, and it observed lessons as they naturally happened rather than running a trial. Teachers weren't randomly assigned to talk this way, so this study cannot show that talk caused the higher scores. Other classroom factors may explain part of the pattern.
- It showed up clearly for maths and grammar/spelling tests, with weaker or mixed findings for reading, and no significant positive association for the science or reasoning tests in this particular study.
- The positive association appeared in classes where a wide range of learners were actually talking. The same building-on talk in a class where only a few learners spoke showed no clear advantage here.
- It comes from Year 5 and 6 classrooms in England. Adapting it for other ages or countries is a reasonable step, not a tested one, see p.3.

What that means for you: worth building as a low-cost habit in maths and literacy lessons, alongside a real effort to widen who's talking. Treat it as a pattern to explore in your own classroom, not a guaranteed fix, and not yet evidence for science or reasoning outcomes specifically.

TRY IT THIS WEEK

Your first small step

THIS WEEK

Once after a learner gives a good answer, ask "Who'd like to build on that, or does anyone see it differently?", then wait for at least one more learner to respond before you move on.

Try it and watch: notice who speaks up who usually doesn't, once building on and questioning ideas becomes a normal part of the lesson. Use this as formative teacher reflection, not a validated observation scale or a test of impact.

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