

Extending the Silence

Giving students several seconds to think after asking a question—and up to two minutes for some questions—improves their learning.

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Differentiated Instruction



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How long do you think teachers pause, on average, after asking a question?

Several studies from the 1970s on have looked into the effect that the amount of time teachers pause after asking a question has on learners. In visiting many classrooms in the United States and other parts of the world, I've found

that, with few exceptions, these studies are still accurate. For example, according to work done by [Mary Budd Rowe](#) in 1972 and [Robert J. Stahl](#) in 1994, pausing for three or more seconds showed a noticeable positive impact on learning. Yet the average length that teachers pause was found to be 0.9 seconds.

Wow.

I've observed this phenomenon in many classrooms, and there is a real need to increase the time granted to students to process what they know and to make sense of what they do not understand.

In differentiating instruction, process and learning preference are the keys. Process is how learners make sense of ideas, compose their thinking, and prepare a thoughtful answer. Learning preference, in the case of questions posed to the whole class, refers to how some students prefer to silently process the content, keeping their own counsel (Internal Thinkers), while others prefer to talk or express their thinking with an audience as a sounding board (External Thinkers).

The External Thinkers, those go-to students who can be counted on to talk within the first three seconds, may be shaping their ideas as they talk—they haven't had sufficient time to fully process but speak out anyway. Meanwhile, the Internal Thinkers have also had insufficient time to process, but don't feel comfortable responding.

One solution is for teachers to pause for five to 15 seconds before calling on students. The silence for some may feel unbearably long. Yet consider that the fastest male and female 100-meter sprinters in the world run at or under 10 seconds. The world record is under 10 seconds, which goes by quickly. Why not offer a similar amount of time for students to consider their responses to questions that require deep thinking?

Strategies for Providing Students With Time to

Think

Provide wait time: Give students five to 15 seconds to formulate a response to a question for which they should know the answer. Not every learner processes thinking at the same speed. Quality should be measured in the content of the answer, not the speediness.

I count in my head to 15. Most times, I get responses by 10 to 12 seconds. If you don't get responses within 15 seconds, you can call on students, instead of asking for volunteers.

Give think time: Give students 20 seconds to two minutes to make sense of questions that require analysis to synthesize concepts into a different construct or frame. You can aid this by encouraging journaling, silent reflection, or partner discussions. Giving such chunks of time honors the work being asked of students. Quick responses probably mean that the question did not stretch the learners' understanding. After the allotted time, any student can be called on to share their response.

Teach reflection: Coach students on the value and practice of reflection. Educators and students may appear to be uncomfortable with silence, hence the typical one-second pause time. Silence may be equated with nothing happening.

In reality, when students are provided with structured ways to practice thinking and specific directions about what to accomplish within the silent time, they can become more productive during reflection. [Think From the Middle](#) is a collection of approaches for students to hone their thinking processes during reflection and collaborative communication.

Teach students how to manage a conversation: It's a beautiful thing to witness students running thoughtful conversations around topics that combine curriculum and real-world connections. Establish a culture for students to engage in such conversations, and they'll soon be doing most of

the heavy lifting during the lesson.

One powerful example I've witnessed in Michigan and Texas uses a guide for student-led conversation prompts called [Talk Moves](#). This list of conversation stems provides students with communication tools for participating in and sustaining discussions. I've witnessed their use in science classes using the Next Generation Science Standards, and they're equally useful in all subject area courses.

Students choose the starter stem that best supports the topic to be discussed. Teachers use the Talk Moves to coach and guide students to different levels of complex thinking by directing them toward different sections of conversation prompts. The intent is for students to own the conversation, which empowers their ability to process concepts for understanding.

Placing Students at the Center of Learning

We want students to become independent learners who can navigate challenging material and situations. Students learn at different paces, which seems less about intelligence and more about the time barriers put in the path of learning. There may be a place for timed responses and answering questions under the pressure of a clock, yet there are no standards that say that students should master concepts in less than one second.

Most people need adequate time to process their thoughts if they are expected to contribute to a conversation. Life is not a 30-minute game show with rapid-fire questions that require low-level answers, plus commercial breaks. Even if it were, one would need time to develop and master the processing skills to compete.