

6 Classroom Strategies that Work for Generating Student Discussions Online

Kara Newhouse
Mind/Shift KQED - Aug 24

Conversation is a cornerstone of Cicely Woodard’s classroom. Every day last spring, her eighth-graders at Freedom Middle School in Franklin, Tennessee posed questions, discussed math problems in small and large groups and responded to one another’s ideas. Woodard wanted those experiences to continue when her school switched to distance



learning during the coronavirus outbreak, but she knew that key elements would be missing. She wouldn’t, for instance, be able to read body language or see students’ work in real time. Like many teachers, those differences made her uncertain about what to expect. Once virtual classes got rolling, though, she was gratified to see that familiar classroom techniques worked to get kids talking online, too. “I was very intentional about continuing to use (these strategies), because I wanted to keep as much normalcy as possible,” said Woodard, a former Tennessee Teacher of the Year. In an interview after her final virtual class this year, Woodard shared six strategies to generate student discussions online.

Check in as a class

Woodard’s students attended one live class per week during distance learning. Woodard opened each of these virtual classes with a question unrelated to math, such as “How are you feeling?” “What are you grateful for today?” or “What’s bringing you joy?” The activity mirrored the “circle time” exercise that her classes usually did on the first day of the week in school. “I think this time at the beginning of our virtual sessions helped all of us to feel more connected and helped them to feel more comfortable

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talking about math in a virtual setting,” Woodard said. She noted that students always had the option to pass, but they rarely did, and at the end of the year, many highlighted circle time as their favorite part of class.

Include private think time

Just as she would during in-person classes, Woodard chose problems for virtual classes carefully, selecting ones that had a real-world context and could be looked at in multiple ways. “I knew that I had to choose problems that were open to discussion,” she said. Before getting to the discussion, though, Woodard gave students time to think and write down ideas. She would set up the problem with the full group, then set her timer for two minutes. That time allowed students to develop their reasoning and helped eliminate the anxiety caused when speed is prioritized in math. It also gave Woodard insights into student thinking. “I’m often surprised because there are things I think they might say, and they come up with something completely different,” she said.

Ask, “What do you notice?”

Drawing from her training in inquiry-based learning, Woodard often asks her students, “What do you notice?” in regard to a number, pattern or problem. When raising that question online, she shared her tablet screen and used a stylus to underline, make notes or add drawings as students commented. In one recent class, she showed a graph of two quadratic equations that she created with Desmos. Asked what they noticed, most students talked about the vertices, whether the parabolas opened up or down and other visual details. The last student who spoke pointed out something different, though: the equations used for the graph were written in standard form. Woodard said she didn’t expect anyone to discuss the equations, which were written on the side of the graph. “They’re looking at this entire screen and these pictures, and you don’t know what they’re noticing until you give them an opportunity to talk about it.”

Validate student thinking

Woodard’s use of her stylus to record student ideas had a purpose beyond note-taking. “When a student gave an idea it was powerful for the entire class to see that idea written...because it allowed the child to feel like their idea was validated,” she said. That goes for ideas that are on the right track and ones that lead to incorrect

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solutions. Both enabled students to elucidate their mathematical thinking and help each other look at problems differently. And Woodard recommended another way to validate students that is easy to do online: thanking them every time they contribute.

Make use of small groups

Most of Woodard's classes included paraprofessionals, so she was able to take advantage of Zoom's breakout room feature to allow students to discuss problems in small groups. In advance of class, she sent her colleagues the problems and a list of questions they could ask to guide discussions. In the small groups, students had more opportunities to agree, disagree and try out ideas. Small groups can be employed without paraprofessionals, too. After his initial experiences with whole group live instruction, New York City math teacher José Vilson switched to meeting with subgroups. The change made virtual classes more manageable for him and more engaging for students. "The subgrouping has been very helpful because it's allowed for specific students to talk to each other about how they can do the work together, and I've seen some of them collaborate without me there," Vilson said.

Be OK with awkward silence

During discussions, Woodard typically waits ten seconds after a student asks a question to allow other students to contribute. The silence can feel awkward, especially in a virtual session when not all students are using video. "Waiting is hard, period, for teachers, because sometimes we want to rescue them. We don't want that uncomfortable struggle," Woodard said. But it's often at the last second when she is about to speak that a student chimes in. To be OK with wait time, Woodard said, "I have to remind myself that I want my students to think."