

## SCIENCE

### The Impact of COVID-19 on Mathematics Education Curriculum

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COVID-19 has impacted everyone in some way, but how will it affect the future of our society and the education of students? The lives of students and teachers were rapidly upended as schools closed and transitioned to virtual learning throughout the pandemic. While this decision was necessary, it undoubtedly impacted the nature of students' mathematical education. Through the distribution of a survey about curricular decision making, we collected results from 525 grade 3–5 teachers across the United States about how they adapted their curriculum during the pandemic. In pairs of researchers, we analyzed the written survey responses. Educators reported finding the transition to virtual learning challenging. The needs of their students differed on a student-to-student basis, as some students had more access to technology than others, thus resulting in many teachers having to learn new techniques such as how to engage students virtually. The teachers reported using sites such as Pinterest and TeachersPayTeachers both before and after the COVID-19 pandemic; however, there was a definite increase in the use of these online resources during the pandemic. These curricular shifts also influence the future of education as teachers move away from mass-produced print textbooks and toward teacher-created materials. While we do not yet know the ramifications of this transition on the future of education, it is likely that it will play a significant role in students' education because the way that they are being taught is changing. We plan to co-construct pedagogical tool kits with teachers that include resources to assist them in virtual learning and curriculum decision making, as these phenomena will likely be present in the foreseeable future.

*Research advisor Jill Newton writes: "Working with Kristen on this study has been a pleasure; she is a curious and thoughtful researcher with an analytic mind. The project addresses her professional goal to be a mathematics teacher, as she will face the opportunities and challenges of enhancing her students' learning experiences in her future classroom."*



*Kristen Ferguson is pictured here with a student she tutors regularly. The student uses both textbooks and teacher-created materials and has continued to do so during the pandemic.*