

Learning & Teaching

Mathematics Teacher: Learning and Teaching PK-12, is NCTM's newest journal that reflects the current practices of mathematics education, as well as maintains a knowledge base of practice and policy in looking at the future of the field. Content is aimed at preschool to 12th grade with peer-reviewed and invited articles. *MTLT* is published monthly.

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Mission Statement

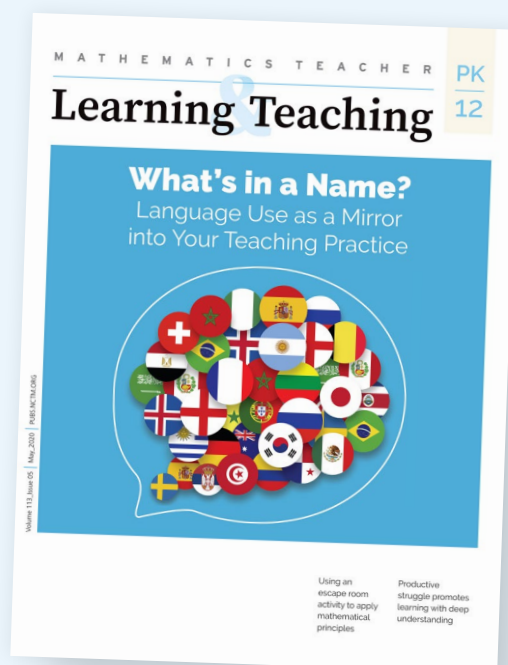
The National Council of Teachers of Mathematics advocates for high-quality mathematics teaching and learning for each and every student.

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Representation Matters: Students Choose Their Study Expert

Ear to the Ground features voices from several corners of the mathematics education world.

Kaitlyn May and Liza Bondurant

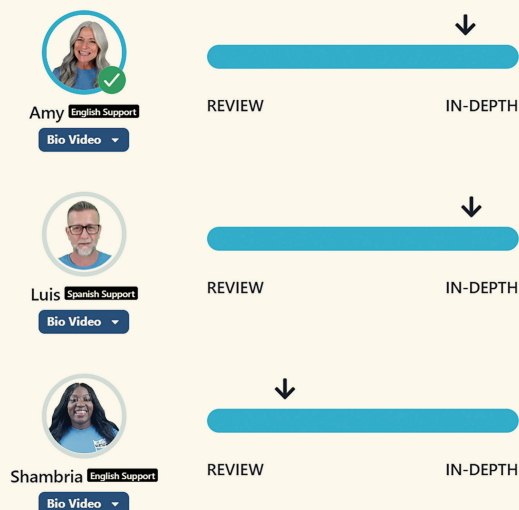
The demographic landscape of students in the United States is richly diverse. Census data show the student population is 47% white, 26% Hispanic, 13% Black, 6% Asian, and 7% other races, with 22% of students speaking languages other than English at home. In contrast, mathematics teachers are predominantly white (80%) and female (80%), with few bilingual educators (Spiegelman, 2020). The disparity in shared identity markers such as race, gender, or language between students and teachers affects educational outcomes and engagement (Wang & Antonenko, 2017). Representation boosts motivation, STEM engagement, and participation for students of color (Lim & Meer, 2020; Rasheed et al., 2020).

Math Nation (link online) is an online suite of customizable, standards-aligned mathematics instructional resources. By featuring diverse educators, called

Study Experts, who personalize the learning experience and connect meaningfully with students, Math Nation instructional videos empower students to excel

in mathematics and build positive mathematical identities. For each lesson, students can choose from three to five different Study Experts (see Figure 1)

Figure 1 Choice of Study Experts for Each Lesson



Note. From Accelerate Learning's Math Nation website. Reprinted with permission.

who represent various racial, ethnic, gender, and linguistic backgrounds, making the content more relatable and accessible (Wang & Antoneko, 2017). Diverse Study Experts can provide students with relatable role models who affirm their identities, challenge stereotypes, and foster a sense of belonging in mathematics (Bondurant & McConchie, 2024). As seen in Figure 2, teachers have several flexible options for when and how to use the videos as a supplement.

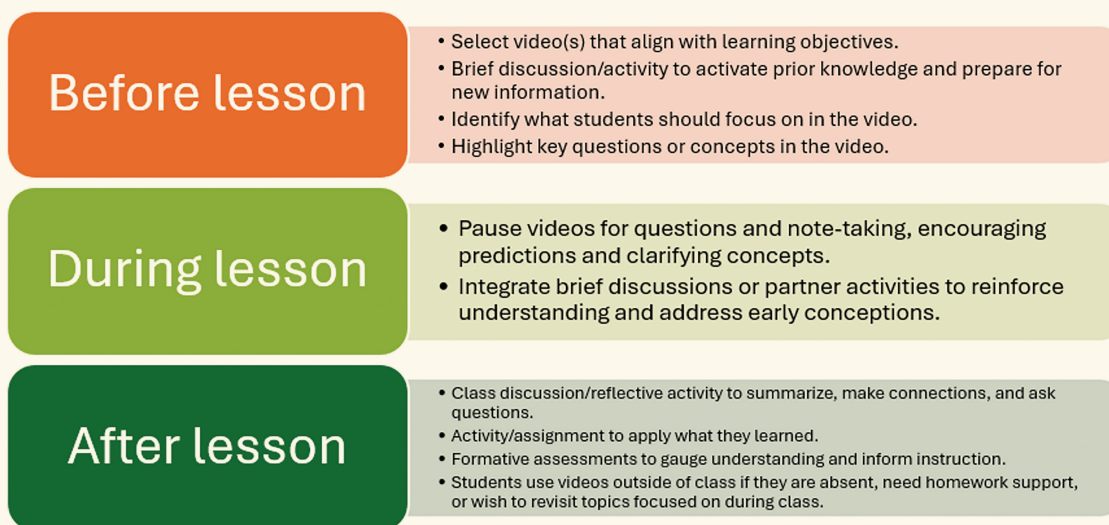
I (Liza Bondurant) have helped Math Nation develop resources,

used Math Nation resources, and observed the transformative impact of the Study Expert videos firsthand. Students frequently report feeling motivated and confident, with one noting, “He (the Study Expert) explains math in a way that makes sense to me.” The videos also include a variety of culturally relevant real-world examples designed to help students see applications to their everyday lives.

As a research manager for Accelerate Learning, I (Kaitlyn May) monitor the impact of

Math Nation on student performance. Our goal is to ensure that students see themselves in the Study Experts, fostering a sense of belonging and engagement in mathematics. Increased platform usage leads to higher proficiency among all subgroups, including low-income students, students of color (Che & May, 2023), and students with disabilities (Sibley, 2023). This is especially evident in Title I schools, where Math Nation has contributed to significant improvements in student achievement (Accelerate Learning, 2024).

Figure 2 How To Bring Videos Into the Classroom



Kaitlyn May, kmay@acceleratelearning.com, is a research manager at Accelerate Learning, a leading provider of K-12 STEM curricula. In this role, she oversees research and grant initiatives for the Math Nation and Collaborate Science programs. With a research background in how young children understand and interact with the world, Kaitlyn is dedicated to making STEM engaging, accessible, and meaningful for all learners. In addition to her work in curriculum development, Kaitlyn periodically teaches graduate-level courses in statistics and research methods for Baylor University and the University of Alabama.

Liza Bondurant, she/her, lb2206@msstate.edu, began teaching mathematics in upstate New York in 2005. Since 2013, she has been a mathematics teacher educator in Mississippi and is currently an associate professor at Mississippi State University. She is passionate about helping mathematics teachers develop learning spaces where each and every learner develops an understanding and appreciation of mathematics.

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Math Nation is more than a tool for high-quality instruction; it is a bridge for students to connect with Study Experts who

inspire them to succeed. Until the demographic makeup of U.S. teachers reflects the diversity of our students, tools like Study

Expert videos can help each and every learner feel a sense of belonging in mathematics. —

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Readers’ Survey

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Follow this link to take the survey.

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