

Hold the Calculators: Let's Talk About Math!

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(PhysOrg.com) -- Many children, when learning to read, are encouraged by their teachers to retell all they remember about a story in order to build their comprehension skills. But can similar comprehension strategies be applied to mathematics? Researchers at North Carolina State University say that when teachers work with kids to talk through math problems, kids do a better job of absorbing and understanding the content.

“Current methods of teaching math - with examples and activities - are important, but we’re neglecting the communications component around it,” says Dr. Paola Sztajn, professor of [mathematics education](#) at NC State. “Helping children verbally work through math problems and articulate problem solving is an important aspect of their understanding.”

However, according to Sztajn, in order to reinforce this aspect of learning, you first need to reach the [teachers](#). “We need to educate teachers how to do ‘math talk’ in classrooms and create ways for them to integrate it into their curriculum,” Sztajn says.

Sztajn and her team recently received a five-year, \$2.9 million grant from the National Science Foundation to launch the program - Project AIM: All Included in Mathematics - and explore this new method of teaching. The researchers will develop a “math talk” curriculum for second-grade teachers across Wake County, and then work with the district’s math coaches to provide professional development to all second-grade teachers. The teachers will undergo approximately 40 hours of professional development over the course of a year to prepare to incorporate “math talk” into lessons.

“We specifically chose second grade because it has been shown to be a pivotal time in children’s development - especially in the areas of math and literacy,” says Dr. Ellen McIntyre, head of the Department of Elementary [Education](#) at NC State and a researcher on the project. “After second

grade, students go from doing simple math - addition and subtraction - into more complicated areas such as multiplication. We need to make sure our students have a strong foundation before moving forward. However, the idea is to apply the ‘math talk’ concept to other grade levels and other types of math content.”

Working with Sztajn and McIntyre are Dr. Angela Wiseman and Dr. Steve Amendum, both assistant professors of literacy education at NC State.

“What makes this research unique is that we’re taking experts who specialize in elementary math education and experts in elementary literacy education and combining the knowledge from both groups to help kids learn how to talk about [math](#) that will ultimately help them learn more mathematics,” McIntyre explains.

Provided by North Carolina State University

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