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**Bedtime Math's Crazy 8s Club Reduces Kids' Math Anxiety,  
According to Johns Hopkins University**

***New Study Shows After-School Club Helps Change the Way Kids Feel About Math***

SUMMIT, N.J. (March 27, 2018) – Bedtime Math Foundation's Crazy 8s club reduces children's feelings of math-related anxiety, according to a study led by Johns Hopkins University psychologists.

[Crazy 8s](#) is the nation's largest recreational after-school math club for young children. Kids in kindergarten through second grade and third through fifth grade explore math through play, engaging in high-energy, hands-on activities that use unconventional items like glow sticks, toilet paper and beach balls. Since 2014, 140,000 children have participated in 10,000 Crazy 8s clubs across the country.

The results of the study found that children in both age groups experienced a significant reduction in math anxiety after eight weeks of participation in the club. The effect was more pronounced among children in the kindergarten through second grade club.

"Studies have shown the link between math anxiety and math performance starts to emerge towards the end of the elementary school years," said Lisa Feigenson, co-director of the Johns Hopkins University Laboratory for Child Development. "It's not only critical to identify experiences that can prevent or reduce math anxiety during these early years, but *before* children's negative feelings about math affect their math performance. We found Crazy 8s offers one accessible way to change the way kids feel about math."

"As parents pressure our schools to perform better, what matters just as much is kids' exposure to learning during playtime. And the fact is, math hasn't been part of the equation," said Laura Overdeck, founder of the nonprofit Bedtime Math. "Crazy 8s creates a social atmosphere where kids can engage in math play after school without test and grade pressure, and in doing so, see how math is a part of their daily lives."

(more)

Andrea Quintero, postdoctoral fellow at Johns Hopkins University, added, “Many children and adults experience math anxiety, which is linked to poorer math performance. And later in life, math performance in turn correlates with career success, income, and psychological well-being. Crazy 8s offers one way of decreasing math anxiety during childhood, which is an important strategy for keeping kids engaged in mathematics, and improving math achievement.”

Bedtime Math donates free Crazy 8s kits, containing step-by-step directions and most of the materials needed to run the eight-week club. Designed for 12-16 kids, the club offers up to 32 weeks of activities that appeal to children with a wide range of abilities and interests – not just those who love math.

The Johns Hopkins University study joins a growing body of research that underscores the powerful impact of afterschool programs on children. While the study focused on Crazy 8s clubs, more research and evaluation studies are needed on the impact of recreational science, technology, engineering and math (STEM) programming for children. Bedtime Math is committed to continuing to evaluate the impact of Crazy 8s.

#### About the Johns Hopkins Study

Researchers at Johns Hopkins University initially examined 755 elementary-aged children who voluntarily participated in 75 Crazy 8s clubs in diverse communities throughout the country. Children completed a short survey before and after the club, providing a measure of their feelings about math. The survey showed the younger children experienced a significant reduction in math anxiety after participating in a club for eight weeks. Older children did not experience a similar reduction, perhaps because those who chose to participate in the club had low levels of math anxiety to begin with.

To account for possible self-selection bias in the survey population, a randomized control trial (RCT) was designed, in which a new sample of 652 children in Maryland and New Jersey was divided into two groups. One group was assigned to participate in Crazy 8s, and a control group was assigned to participate in Art in Action, an extracurricular program aimed at stimulating interest and expertise in the visual arts.

The RCT found that both younger and older children experienced significant reductions in math anxiety after participating in Crazy 8s for eight weeks. The effect was most notable among children in kindergarten through second grade. This benefit was seen equally in boys and in girls. Children in the control group did not experience a reduction in math anxiety.

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#### **About Bedtime Math Foundation**

[Bedtime Math Foundation](https://www.bedtimemath.org/) is a nonprofit organization that has become a leader in the area of childhood math content. Its core product is a playful online math problem that parents can do with their kids every day; a study from the University of Chicago showed that when families did Bedtime Math together, kids’ math achievement improved by months. More than a quarter of a million followers have joined the movement. For more information, visit [bedtimemath.org](https://www.bedtimemath.org/).

**PHOTOS ATTACHED**

Photo credit: Bedtime Math Foundation

- 1. Kids in Bedtime Math's Crazy 8s club practice math skills while playing Bingo on a life-sized board.*
- 2. Crazy 8s Race, a board game developed by Bedtime Math for its Crazy 8s club, teaches kids about multiples of 8.*