

# To teach kids math, researcher devises 'brain games'

April 13 2012

---

(Phys.org) -- The world often breaks down into numbers and regular patterns that form predictable cycles. And the sooner children can inherently grasp these patterns, the more confident and comfortable they will be with the world of math.

That's the discerning approach of University at Buffalo Graduate School of Education professor Ming Ming Chiu, and it's based on decades of teaching teachers and watching how students learn. Known for helping parents find teachable math moments, especially at the dinner table and on living room sofa, Ming has devised new ways to make kids comfortable with the ways of math.

Ming demonstrates his easy-to-follow and fun "[Brain Games](#)" for parents and children in this video. His games are designed to help young, pre-kindergarten children understand concepts that give mathematical order to the chaos around them.

"Children with stronger [math skills](#) can recognize more patterns in the world's rapid creation of new information, which grew by a factor of nine during 2006-11," explains Ming. "By understanding these patterns, children will not only better compete for the best jobs as adults, but they also will be better equipped to help solve such major problems as global warming and energy crises.

"The U.S. may be the richest country in the world, but the scores of 15-year-olds on international mathematics tests are below average,

behind 30 countries," he adds.

Ming's Brain Games are simple but effective educational exercises that parents can do with their children at home. These games, some of which he demonstrates in the video, include:

\* More? You Want More? This simple game provides an introduction to numbers, using things kids really like, such as "blueberries. ("Here are two plates of blueberries, which one do you think has more?")

\* Be Fair and Share, Part I. This game helps kids learn addition and subtraction. ("We have two plates of blueberries. How do we share them so each person has the same number of blueberries?")

\* Be Fair and Share, Part II. This game teaches the basics of multiplication and division. ("Three friends are coming. Let's share the blueberries so each friend has the same number of [blueberries](#).")

\* Junk Mail Isn't Just Junk. This exercise helps kids understand statistics by measuring (or counting) how much junk mail arrives each day at home, and then using this measurement to predict how much mail will arrive the next day. Children are asked to assess the accuracy of their predictions. ("Was our guess close?" "Why do you think we received less junk mail than yesterday?")

Ming encourages parents, teachers, caretakers, friends -- and anyone else who wants to help young people learn math -- to devise their own fun Brain Games. He has only four simple rules for doing so:

1. Use things around the house that kids like. Berries. Popcorn. Chocolate
2. Start easy

3. Write down every step in the game

4. Keep it light and fun

Provided by University at Buffalo

Citation: To teach kids math, researcher devises 'brain games' (2012, April 13) retrieved 26 April 2024 from <https://phys.org/news/2012-04-kids-math-brain-games.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.