

Turning to the 'Big Bad Wolf' to break down barriers to math

September 1 2010

Who says 'Little Red Riding Hood' has nothing to do with math?

Certainly not George Gadanidis, whose research at The University of Western Ontario reimagines the fairytale classic to make mathematics fun and accessible for both kids and parents alike - while attempting to dismiss the notion math is akin to the 'Big Bad Wolf.'

The version he and his daughter Molly perform (seen at: brainyday.ca/fairytales/bigbadwolf.html) explores concepts related to shapes and even and odd numbers, while addressing the subtext of parents who scare their children away from math, based on their own prior negative experiences. (For web site, see:

As a professor in Western's Faculty of [Education](#), Gadanidis and his colleagues have long worked to "break the negative cycle of math" by using song, dance and theatre to show how the manipulation and understanding of numbers can be fun. In the process, they hope to encourage people to discuss [math problems](#) as they would a book or a movie, and to break down math stigmas that have been perpetuated over generations.

"We've all heard children come home from school and answer 'nothing' when asked what they learned in math that day," Gadanidis says. "We hope to begin to change that."

He is also capitalizing on the emergence of new media, including

YouTube, to spread positive messages about mathematics, while providing parents with an interactive framework for working through math equations with their children, and for breaking down communication barriers related to their education.

“We’re using JoyofX.com to start building research performances, so we’re publicly performing our research data, which is a unique thing,” Gadanidis says. “This way, scholarly work is accessible to everyone and creates models teachers can use, which bridges the practical and the theoretical.”

At the end of the day, he hopes to get parents, teachers and children talking about what they are learning in mathematics - in a positive manner, and without the generations-old stereotypes - by scripting lyrics that encourage such discussion, including: “I learned that even numbers/They hide in a rectangle... They play hide-and-seek/Take a look or take a peek/Bet you didn’t know that even numbers/Hide in a rectangle.”

These songs are often accompanied by exercises that use materials like linking tubes or chocolate bars that reinforce the concepts of performing math ideas to parents. “Young kids love to perform, especially when it’s something worth performing,” Gadanidis says.

In the process, Gadanidis hopes to begin to change the impression of math from the public end, creating change in the classroom that leads to changes at home. “Province-wide testing creates stress for Grade 3 students, but teachers want the students to do well, so they’re willing to experiment,” Gadanidis says. “This project focuses on big [math](#) ideas and communication skills.”

The Social Sciences and Humanities Research Council (SSHRC)-funded project is heavily inter- and cross-disciplinary, often integrating

partnerships with writers and poets, mathematicians, scientists and other educators across the country and around the world.

Provided by University of Western Ontario

Citation: Turning to the 'Big Bad Wolf' to break down barriers to math (2010, September 1)
retrieved 24 April 2024 from <https://phys.org/news/2010-09-big-bad-wolf-barriers-math.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.