

Adding fun to math

A UWO prof aims to change negative attitudes about the subject by encouraging math videos, songs and even fairy tales to grab kids' attention



Have you read a good math story lately? Or seen a terrific math video?

Much like we would discuss a book of fiction we just finished or movie we saw last night, Western education faculty professor George Gadanidis hopes we'll start talking about math in that same vein.

Our society needs to do that, he argues, because most of our attitudes about math stink.

We're scaring our kids away from mathematics and we've been doing this for so long now, it's become the norm.

"Kids enter school mathematically curious, enthusiastic, capable," Gadanidis says. "They have to learn to be otherwise and they learn to be otherwise because it's very easy in our society to say negative things about math."

So let's think about acute angles and vectors the same way we do fairy tales or music videos: we see them in our day-to-day travels and they can be fun and



Kathy Rumleski

MOTHER LOAD

interesting.

Gadanidis uses an analysis of what makes movies worthwhile and paraphrases it to explain his math education concept.

School math works when:

- It helps students experience the new and the wonderful in mathematics.
- It engages students with these ideas in a way that keeps surprising them (unlike a predictable plot).
- It provides opportunities for students to connect emotionally with math experiences and helps them sense mathematical beauty.

Mathematics and beauty in the same sentence?

Absolutely, says Gadanidis.

Working with numbers, shapes and angles can provide

positive emotional connections and that's beautiful.

Gadanidis reaches out to pupils in elementary school classrooms to help shape performance mathematicians.

He worked with his daughter Molly, 9, who helped him write a story and create a video that puts a mathematical spin on the Big, Bad Wolf story.

It has grown from there to a contest for classes, featuring artistically talented judges such as singer Susan Aglukark, Jay Ingram, co-host and producer of DailyPlanet, London poet, performer and playwright Penn Kemp and Bob Hallett of Great Big Sea.

They judge the various videos created by students using dance, song and even a soap opera to learn about math in their schools.

Gadanidis said it wasn't that difficult to get these high-profile judges on board and they help bring attention to the issue.

Band hits high notes with math

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"I'm finding that if you ask, people say yes. They're willing to help, so we're excited about that and value the time that they take to do this."

The winner will be announced this fall and a new contest launched.

For more information on the contest, visit www.mathfest.ca.

You can also see the work Gadanidis has done with a band Joy of X from the Durham region. Band members take his lyrics and ideas and put them to music. An example is Imagine This, with the lyrics: "The last time I saw Timothy/He was mixing at a dinner party/Telling a story of complex numbers/ And circle wrapping functions."

The band performs in schools so it becomes a public performance of his research data. Funding for this pro-

ject comes from the Fields Institute in Toronto.

You can listen to Imagine This and other songs at <http://joyofx.com>.

Gadanidis and his daughter also write books that have been tested in the classroom.

He is seeing the fruits of his labour (and not just in adding up apples and oranges) in the schools he works in.

"We can see this by walking down the hall. It generates a lot of excitement in schools.

That, in turn, gets parents involved.

"Parents get excited because you've got kids going home and sharing these math ideas."

Gadanidis also does math with parents to demonstrate exactly what he means.

If parents want to try making math

more fun at home, he suggests starting with math stories that can be found at bookstores such as Chapters.

"You can find a lot of mathematical stories that you can engage students with. Kids are amazing. They've got amazing minds. Finding ways to enjoy mathematics with them, as opposed to trying to fix them mathematically, creates a balance that will help them."

Gadanidis and his colleagues also run the website, <http://brainyday.ca>, that has books, videos and CDs.

Now they are working on creating the same attitudes and opportunities around science.

For more information, contact Gadanidis at ggadanid@uwo.ca.

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Prof inspires love of math

Kathy Rumieski's Motherload column *Adding fun to math* (Sept. 13) about math prof George Gadanidis was stimulating reading. How wonderful to encourage everyone to love math. Several years ago, I was part of a group of teachers who enjoyed several Saturday sessions with Gadanidis. He motivated us to explore our own math thinking and attitudes. The activities he introduced to us played out fabulously in the classroom. It was amazing to see the real math thinking that kids (and some adults) could do.

Great to see the next Gadanidis generation is equally inspiring.

Dorothy Palmer

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