



# Hey, it's math the Singapore way

The country has been introducing innovations in schools with a view to stay ahead of everyone, including the US

*By Thomas L. Friedman*

Singapore is a country that takes the internet seriously. Last week its Ministry of Defence granted a deferment for the country's compulsory National Service to a Singaporean teenager so he could finish competing in the finals of the World Cyber Games – the Olympics of online war games.

Being a tiny city-state of 4 million, Singapore is obsessed with nurturing every ounce of talent of every single citizen. That is why, although its fourth and eighth graders already score at the top of the Trends in International Mathematics and Science Study (TIMSS) tests, Singapore has been introducing more innovations into schools. Its

government understands that in a flattening world, where more and more jobs can go anywhere, it's not enough to just stay ahead of its neighbours. It has to stay ahead of everyone – including the US.

Message to America: They are not racing us to the bottom. They are racing us to the top.

As Low-Sim Ay Nar, principal of Xinmin Secondary School, explained to me, Singapore has got rote learning down cold. No one is going to outdrill her students. What it is now focusing on is how to develop more of America's strength: getting Singaporean students and

teachers to be more innovative and creative. "Numerical skills are very important," she told me, but "I am now also encouraging my students to be creative and empowering my teachers. We have been loosening up and allowing people to grow their own ideas."

She added: "We have shifted the emphasis from content alone to making use of the content" on the principle that "knowledge can be created in the classroom and doesn't just have to come from the teacher."

Toward that end, some Singapore schools have adopted a maths teaching programme called HeyMath, which was started four years ago in Chennai, India, by two young Indian bankers, Nirmala Sankaran and Harsh Rajan, in partnership with the Millinnium Mathematics Project at Cambridge University.

With a team of Indian, British and Chinese math and education specialists, the HeyMath group basically said to itself: If you were a parent anywhere in the world and you noticed that Singapore kids, or Indian kids or Chinese kids, were doing really well in math, wouldn't you like to see the best textbooks, teaching and assessment tools, or lesson plans that they were using to teach fractions to fourth graders or quadratic equations to 10<sup>th</sup> graders? And wouldn't it be nice if one company then put all these best practices together with animation tools, and delivered

them through the internet so any teacher in the world could adopt or adapt them to his or her classroom? That's HeyMath.

### **Missing something**

HeyMath's mission to be the math Google - to establish a Web-based platform that enables every student and teacher to learn from the "best teacher in the world" for every math concept and to also be able to benchmark themselves against their peers globally.

The HeyMath platform also includes an online repository of questions, indexed by concept and grade, so teachers can save time in devising homework and tests. Because HeyMath material is accompanied by animated lessons that students can do on their own online, it provides for a lot of self-learning. Indeed, HeyMath(see [www.heyath.net](http://www.heyath.net)), which has been adopted by 35 of Singapore's 165 schools, also provides an online tutor, based in India, to answer questions from students stuck on homework.

Why am I writing about this? Because math and science are the keys to innovation and power in today's world, and American parents had better understand that the people who are eating their kids' lunch in math are not resting on their laurels.

- New York Times News Service

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