

Korean method lays foundation

BY JESSICA RAPP
Features Editor

Korean students don't plug and chug. American students in pre-secondary education have below-average math scores compared to other countries, according to a study conducted by the American Institutes for Research. Researchers as well as educators have asked the question: What makes other countries better at learning math?

Professor of education Janice Grow-Maienza asked this question during her sabbatical in Pusan, Korea. There, she met two professors at Pusan National University, who showed her how their math curriculum differs from a typical American curriculum.

"What's often missing in the American curriculum is the in-depth exploration of the fundamental mathematics behind the operations and procedures that they're teaching children," she said.

Grow said she decided to research the subject further and debated whether a Korean math curriculum would help American students excel in math, a feat that seems only to occur in a top percentage of the educated population. In 1994, she started researching the idea and developed her own project called GecKo mathematics. She said GecKo math will integrate the Korean curriculum into American classrooms, with an initial focus in Northeast, Mo.

The concepts in Korean math differ in many ways from most American curriculums taught in elementary schools. For instance, Korean math does not use tables to practice arithmetic, and instead of encouraging repetition and the plug-and-chug method adopted by many American curriculums, it utilizes critical thinking methods, the base 10 system and

numerous ways of presenting the problems for better conceptual understanding.

She said the basic concept of the program applies to both teachers and students in grades K-6. Teachers would receive training from a teachers manual for a foundational math curriculum using the Korean textbook and applying Korean concepts. Grow received a grant in 2000 to start translating Korean student textbooks based on their sixth national curriculum.

Grow received two more grants in 2001 and 2002 and also received a grant this month so she can continue her project, alongside other professors listed on the GecKo Web site. She said her eventual goal is to build up the program online so teachers and students can use the Web site as a reference to the curriculum.

Hyun-Joo Kim, associate professor of statistics, helped Grow translate the Korean textbooks to English. Kim said she grew up in Korea and came to America to pursue her graduate degree in statistics.

"I was surprised on several occasions that very basic algebra some people have trouble with," Kim said. "Simple multiplication and addition—I was really shocked. They're college students. When they're admitted into college you assume they have that mathematical gratuity, but it wasn't really clear what was going on."

Kim said she recently has begun to fully grasp the differences between the ways of teaching math in the U.S. and in her country. She said her husband, who also teaches statistics at the University, shares some of his own experiences with her about learning math in an American elementary school setting, and she also gathers much of it from working with Grow on the translation.

Kim said much of the reason Ko-



Mark Hardy/Index

Hyun-Joo Kim, associate professor of statistics, teaches a class Tuesday morning. Kim grew up in Korea and said she learned math differently there, and she uses the ideals she learned to encourage concept learning in her classroom.

rean math is seen as the better math program is that it comes from a culture where math receives high importance.

"In Korea, in general, ... we emphasize math a lot," Kim said. "And in Korean culture we actually value being smart. So being a nerd is good — it's a compliment."

For college students, some of whom have not taken a calculus course before entering a university, these teaching methods for the younger grades could serve as the foundation for their learning abilities in the college classroom, she said.

"My key point when writing exams is [that] I let my students bring a study sheet where they can write down the formulas," Kim said. "The important part is when you encounter the actual problem, you figure out which formula belongs where, and without

knowing that connection, it is just useless."

Grow said she has reached a point at which most of the translating from the textbook has been completed, and she currently is working on completing the GecKo Web site, which will

"In Korean culture we actually value being smart. So being a nerd is good, it's a compliment."

Hyun-Joo Kim
Associate Professor of Statistics

post the complete curriculum. In 1996, she recruited students to work to create the graphics and polish the technical aspects of the site.

Freshman Garry Polley has helped with the design of the GecKo Web site since last semester. As a math major, Polley said he thinks that working on this project might help him when he becomes a math teacher.

"My ideal goal would be able to teach elementary school and teach the translated curriculum," he said.

He said he thinks Korean math offers a perspective on teaching that

not only comes with curriculum but the way in which the Korean class is structured. Korean students generally are exposed to a teacher who comes to their classroom and teaches the math class for a period of time, and that teacher specializes in math only, he said.

Districts in the U.S. employ elementary school teachers who are knowledgeable in all subjects and teach one set of students for the entire year, which might take away from their effectiveness in a math-focused setting, he said.

Polley said he thinks Korean math could have helped him as a student and also said he hopes that it will become a staple for all classrooms in the future.

"I was in a math club in elementary school where our teacher kind of taught us why things the way they were, which was kind of helpful as opposed to a classroom where a teacher might be like, 'Just do this,'" he said. "... Later, it makes things more apparent."

Decrease in dollar value hikes study abroad prices

BY ALEX BOLES
Assistant Features Editor

What goes up must come down, and that is just what the value of the dollar is doing.

The American dollar steadily is decreasing in value in foreign countries, making it harder each year to study abroad at a decent price.

Pershing Scholars, such as sophomore Lindsey Adams, are allotted \$4,000 to study abroad while at Truman. Adams said that amount might not be enough anymore. She said she previously wanted to study in London, but the exchange rate was not favorable, and she now plans on studying in Switzerland this summer.

"The price was too much," Adams said. "I think that's a big problem. It's really expensive to study abroad, and I mean, I have \$4,000, and I'm still going to have a hard time with it, so I can't imagine what other people are facing with that."

She said that in order to cover the total cost of her trip, about \$5,500 total — she will apply for scholarships and work during the summer. She said she is grateful for the

money that she already is receiving, however.

Some students have opted to study in non-traditional places where exchange rates are better, which Adams said she thinks this is a good plan.

"I think ... it's really expensive for some people," she said. "... It's cool they're looking at other places, and they're not just not going to go because of the cost but looking for alternative ways to go, so I think it's a good idea."

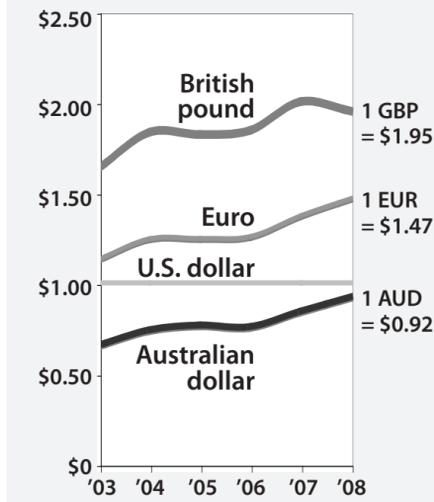
Adams said she fell in love with Europe when she went there two years ago, and the dollar was \$1.25 to the euro.

Patrick Lecaque, director for the Center for International Education, said the exchange rate for the euro has jumped up to \$1.46 for one euro.

"First of all, it's not just in Europe — it affects all countries around the world," Lecaque said. "It's not just in the past year, it's in the past five years. The past five years, the prices have increased by over 50 percent in some cases because in some cases the value of the dollar dropped by 50 percent."

He said that five years ago, Australia was a very popular

ECON 101: Dollar value goes down, study abroad costs go up



Reporting by Nick Wilsey and Will Young/Index
Source: bloomberg.com, Center for International Education

Example cost breakdown of a 3-week, faculty-led summer abroad program:

Europe in Transition
(May 13 - May 30, 2008)

- \$3,600 - Transportation (ground and air), room and board.
- \$1,551 - Tuition for six credit hours
- \$217 - Faculty
- \$200 - Contingency fund
- \$32 - Insurance

\$4,850 - Total cost of program in 2006

\$5,250 - Total in 2006

\$5,600 - Total in 2008

destination for study abroad students because of the low cost of living, but now prices have increased as much as 40 percent.

He said the program used to send about 20 to 30 students to Australia every year, and now it only sends about five or six students.

Lecaque said the study abroad program's prices are

affected by the decrease in the American dollar's value. He said that most of the time programs are forced to raise prices because the dollar value changes.

"For many people, exchange rate means nothing, and you don't see it until it affects you," he said. "Well, [with] study abroad students, I have people ask me, 'How

come the price has gone up?' ... It is affecting everyone. We still have a majority of our students studying abroad in Europe — that's the national trend, and the cost of living is much higher than in the United States."

Lecaque said most students hear about studying abroad during their freshman year, and by the time they are soph-

omores and juniors, the prices have gone up considerably. He said the program never has had to ask students for more money after they applied and that during his 18 years as director, no student has dropped out because of a change in cost.

"You will have a price that is printed," he said. "Between last year's price and this year's price, it is an \$800 difference. That accounts for about 10 percent of the total cost, so it's an increase of about 10 percent, but it's a significant amount of money."

Melanee Crist, assistant director for international education and international student affairs, said she just returned from a recruitment trip in Bulgaria and that the exchange rate is not favorable for Americans.

She said the number of international students has increased in the last two years and that the cost of living in the U.S. and the quality of education have something to do with it.

"The No. 1 reason [students] come to the U.S., I think, is because we are still known across the world as having a very good higher-educational system," Crist said. "They chose Truman in general because of the quality of education, you know, the rankings — they look at those — the fact that the Midwest and Truman are an affordable option. Also, they come to know that Midwesterners are more welcome and friendly."

WWW.TRUMANRENTALS.COM

Providing Affordable Student Housing for over 22 years.

Boardwalk • Waterworks • Park Place • States Avenue • St. James Place • New York Avenue

Four Horizons Realty
703 N. Marion St.
Kirksville, MO 63501
660-665-RENT
www.4horizonsrealty.com

King's Buffet & Restaurant

1707 S. Baltimore 665-6622

College Student Discount
Sunday to Thursday Evening Buffet
\$6.28 (plus tax)

Buffet includes:
Grand salad bar, variety of appetizers, cocktail shrimp, sesame shrimp, beef, chicken, pork and more, ice cream and desserts.