Committee seeks formula to make math appealing

By MOLLY WILLIAMSON
State Journal Staff Writer

Most people do not like math, and it shows in student test scores.

That is why the General Assembly targeted math instruction last session and passed House Bill 93, legislation that called for a committee on mathematics achievement to assess Kentucky's lack of math proficiency skills and create a strategic plan to increase math performance across the state.

"You'll be hard-pressed to find anyone in the state that does not think literacy is a basic skill ... but not everyone believes math is an important thing to do. Math has a stigma."
–**William Bush**, chairman, mathematics achievement committee

However, the task at hand is not going to be easy, said William Bush, chairman of the mathematics achievement committee. He said the state needs to change the beliefs of many teachers, students, administrators, parents and community members.

"You'll be hard-pressed to find anyone in the state that does not think literacy is a basic skill ... but not everyone believes math is an important thing to do," Bush said. "Math has a stigma."

Bush updated the education assessment and accountability review subcommittee Monday on the mathematics committee's activity.

The 25-member committee is working on a draft strategic plan, which should be ready by September, Bush said. He said he would take legislators' comments back to the mathematics committee and it would adjust its strategic plan accordingly.

Senate Majority Leader and committee co-chairman Sen. Dan Kelly, R-Springfield, said while he was pleased with all of the initiatives the mathematics committee plans to put in place and research it plans to do, he

See **MATH,** A3

Math (Continued from Page A1)

would like to see the committee take some action – the sooner the better.

He suggested it test out some of its theories and do some "experimenting" on a small level to see if any of the new practices work. The General Assembly dedicated money for testing out strategies, and Kelly said he would like to see that happen this fall.

"It is important that students in Kentucky get as good a math education as anywhere else in the nation," Kelly said. "I don't think it is too early to start experimenting on a small level."

Bush said he would see what the committee could do.

Besides changing the community's perception of math instruction, the committee wants to strengthen teachers' knowledge of high-level math skills and how to effectively teach those to all types of students, Bush said.

It also wants to make sure teachers know about and can access all of the math resources necessary to help them educate students. This includes access to technology and intervention and remediation programs, Bush said.

Lastly, it wants to recruit and retain more teachers with math expertise. He said not enough middle and high school teachers have a strong background in math and many of the elementary school teachers have not taken enough math courses.

"A good place to run and hide from math is to become an elementary teacher, because it only requires three or six (course) hours of math," Bush said.

Teachers need to learn not only higher levels of math for middle and high school teachers, but how to teach math at the elementary level, to understand how different students will learn math, Bush said.

"It is a lot cheaper to build math knowledge while they are in college than wait until they are out and try to fix it (through professional development)," Bush said.

Other strategies include training math coaches to help set the curriculum, lead professional development and improve instruction and creating math camps or tutoring programs, Bush said.

Also, the committee will develop a center for mathematics achievement at a public university, similar to the University of Kentucky Collaborative Center for Literacy Development, created by a 1998 Senate bill to address literacy instruction.

The math center should be established by January 2006, according to a projection sheet Bush handed out Monday.

Education assessment committee co-chairman Harry Moberly, D-Richmond, said he was pleased with the progress.

"Obviously instruction is needed very badly in the state," Moberly said. "Test scores indicated it in past (Commonwealth Accountability Testing System reports) and No Child Left Behind indicated it as well."

Students' performance in math and literacy were released as part of the No Child Left behind data last week. Both Frankfort Independent and Franklin County Public schools had some problems with math proficiency.

Frankfort Superintendent Judith Lucarelli said the city system is convening a committee to look at how to improve math instruction, which will be led by Second Street School Middle Grades Principal Cynthia Lawson.

The groups that had the most difficulty with math in Frankfort were the black and low-income populations. At Frankfort High School, none of the students classified as black were proficient in math. Only 5.88 percent of low-income students tested proficiently in math.

Students can opt not to be classified in a certain ethnic category. However, those who qualify for free and reduced lunch are classified as such.

"Clearly this is something we are going to have to work on," Lucarelli said about the black and low-income math scores. "Even before we got this (NCLB) information, I made a point to staff that our black and low-income students were performing substantially below the rest in their class. We can't have that anymore."

The black and free and reduced lunch groups at Elkhorn Middle School and the low-income population at Peaks Mill Elementary also struggled in reading and at the district level, not enough students with disabilities were proficient in math to allow the district to make its adequate yearly progress goal assigned by No Child Left Behind.

Communications Coordinator Wayne Dominick said the district knew the areas it needed to work on and administrators are trying to better identify the various subgroups of students and work to improve their deficiencies.

No Child Left Behind measures both reading and math and requires one more indicator at each school level. For high schools, it is graduation rate.

Other states use attendance as an indicator for the middle and elementary levels, said Kevin Noland, deputy education commissioner and Kentucky Department of Education general counsel. In Kentucky, schools are required to meet or exceed their accountability index from last year, showing that it is progressing or holding fast academically.

It also must have 95 percent of students taking the tests, Noland said. Schools can exempt certain students from taking proficiency tests for various reasons such as handicaps.

Noland said this is a more rigorous standard than other states.

Richard Innes, education analyst for the Bluegrass Institute for Public Policy Solutions in Bowling Green, asked the education assessment and accountability review subcommittee to postpone approving the new indicator until its meeting.

For one thing, state law requires legislators to review and approve the new indicator, using the accountability index and participation indicator, Innes said. By not following the proper procedure, the Department of Education is in violation of state law and may lose its federal funding.

The department tried to bring the issue before the education assessment committee in June, but the agenda was so long, the legislators did not have time to hear the issue, Noland said. Also, he said department staff spoke with members of the U.S. Department of Education, who said it was fine that they use the new standard to calculate adequate yearly progress this year even though it had not been approved.

Innes also said the new indicator cannot be evenly applied to all schools and said he felt the new indicator was not as rigorous as the previous, which required all schools to improve at least one-tenth point above the previous year's CATS accountability index.

The board approved the indicator.

However, Sen. Jack Westwood, R-Erlanger, asked the committee to direct the Office of Education Accountability to investigate the committee's acceptance to make sure it was not violating state or federal law.