

Making a difference

Secondary students show steady increases in math, literacy



Grade 10 students Jan Rosete, left, and Dalia Farhat study together at Catholic Central High School. Both will write the Ontario Secondary School Literacy Test this year.

(Windsor, Ontario, Sept. 24, 2014) – David Petro doesn't want to hear any more students suggest that they just aren't "math people."

"Math is seen by society as very mechanical; either you can do it or you can't," says the math and science consultant for the Windsor-Essex Catholic District School Board. "We need to change students' mindsets from the idea that there are math people and non-math people."

To that end, Petro has worked with a number of math teachers at schools throughout the board that encourage students to believe they can be successful in mathematics.

While the board has an entire range of programs designed to help improve students outcomes, one method is to encourage the use of more non-traditional activities that engage students more than just doing a set of math problems.

“It could be as simple as tweaking a worksheet or as complex as creating a game or sorting activity,” said Petro. “If we can show students that they can do math in a fun environment then they are more likely to continue to do it on their own in the more traditional sense. And it’s working. We’ve had students say ‘I can’t believe this is math class because I’m actually having fun.’”

That simple step, along with a number of other programs, resulted in improved Grade 9 EQAO math results. According to assessments from Education Quality and Accountability Office for 2013-14, 91 per cent of WECDSB students enrolled in Grade 9 academic math achieved at or above the provincial standard, representing a five per cent increase over last year, and a 14 per cent increase over the past six years. Students in this category exceeded the provincial achievement level by six per cent.

At the applied math level, 54 per cent of students achieved at or above the provincial standard – the same as last year – but still exceeded the provincial achievement level by seven per cent. Students in this category have improved by 18 per cent over the last six years.

Most encouraging about the results, are the increases in scores students have seen since their Grade 6 EQAO math assessments, according to Petro. Of the 91 per cent of academic students who met the standard, 14 per cent were below in Grade 6 but rose to standard in Grade 9, he said. Of the 54 per cent who achieved provincial standard in Grade 9, 34 per cent were below in Grade 6.

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-Dave Petro,
Science and Math
Consultant

“In just about every school, we’ve seen huge jumps from Grade 6 to Grade 9,” said Petro, who closely tracks cohorts of students as they move up through the system. “That means we are directly helping students in their mathematical learning, not only in Grade 9, but in Grades 7 and 8 as well. We know that we’re making a difference over time.”

While we cannot attribute these gains to any single strategy used, Petro said efforts continue to be directed to those who struggle in math. Whether through developing more engaging activities for students to do, or more rigorous assessments for them to write, the results show that while these strategies are necessary for some, they are good for all.

Math, however, wasn’t the only discipline that saw big increases in EQAO results for the WECDSB.

In the area of literacy, the board enjoyed its highest success rate in six years, with a 90 per cent success rate among who wrote the Ontario Secondary School Literacy Test. That marks a three per cent increase over last year, and exceeds the provincial success rate by seven per cent.

The improvement may be attributable to a specific initiative that made literacy a priority for all secondary teachers, regardless of discipline, according to Elisa Houston, the board's English, language, and literacy consultant.

"Whether they were teaching science, geography or English, we emphasized that literacy is everyone's responsibility," she said.

It was a paradigm shift that paid dividends, especially at schools like Catholic Central High School. Last year, 87 per cent of students were successful on the OSSLT, compared to only 68 per cent the year before.

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Literacy consultant

"Every teacher in that building was supporting what we trying to do in terms of literacy," said Amy Lo Faso, who was the principal at CCH for the last seven years but has since moved to St. Anne Catholic High School in Lakeshore. "We showed them how important literacy was in every discipline, and they really embraced that."

When asked to describe her former school, Lo Faso was reluctant to characterize it with a lot of the descriptors typically used to define inner city schools.

"I never wanted to present the school as down on its luck," she said, adding that a particular challenge was the high number of new Canadian students whose first language is not English.

She said her former students faced a number of academic challenges, especially in the area of literacy, where they had difficulty organizing their ideas, how to coherently select literary ideas, and how to develop them. In reading, they struggled with comprehension and contextualizing, she added.

Lo Faso said her school received additional funding from a high priority grant, which allowed for various professional development initiatives to identify and address such gaps as a lack of prior knowledge among her students, as well as a lack of educational support at home.

"But there was never a question about whether these kids could achieve," she said. "We had high expectations, and we made sure that we held our students up to them."