



ONTARIO PUBLIC
SCHOOL BOARDS'
ASSOCIATION

Leading Education's Advocates

EFFECTIVE PRACTICES IN ELEMENTARY MATHEMATICS EDUCATION

School Board: Simcoe County District School Board

Contact Person and Email Address: Anita Simpson, asimpson@scdsb.on.ca

Name of Program/Initiative/Strategy: Balanced Mathematics

Hyperlinks to Documents or Website(s) Describing this Program/Initiative/Strategy

Balanced Math Video Clip Links

Introduction to Balanced Math <http://bit.ly/BalancedMath>

Math Games and Math Facts <http://bit.ly/BalancedMathGamesFactsvideo>

Independent Problem Solving <http://bit.ly/BalancedMathIndependentPSvideo>

Shared Problem Solving <http://bit.ly/BalancedMathSharedPSvideo>

Guided Math <http://bit.ly/BalancedMathGuidedvideo>

Math Journal <http://bit.ly/BalancedMathJournalvideo>

Twitter: #balancedmath

OISE/OTF/Stanford University Research: Project was case studied and documented in this resource which will be released in September 2016

<https://www.routledge.com/products/search?keywords=teacher+learning+and+leadership>

Canadian Education Association Ken Spencer Award for Innovation:

<http://www.cea-ace.ca/award-holder/inquiry-hub-ihub-living-start-fieldcrest-balanced-math-east-three-gardening-7-oaks-wayf>

Canadian Education Association guest blog:

<http://www.cea-ace.ca/blog/kristen-muscat-fennell/2015/11/2/framework-teaching-math>

Description of Program/Initiative/Strategy

The focus is on exemplary mathematics practices that excite, engage and increase student confidence and achievement. In the brief description please provide answers to the following questions: Where the program/initiative/strategy is delivered (school/board locations)? Who is responsible for delivering and monitoring the program/initiative/strategy? Who is the target audience? Are there any community partnerships involved? Are there any staffing or budget implications? Are there any special resources required? What are your indicators of success, etc.?

The Balanced Math framework has been implemented in Grades K-8 across our board. Approximately 50 schools and over 350 educators have participated in collaborative inquiries to learn and implement the differentiated instructional framework. Additional sharing opportunities include in-school PLCs, staff meetings, lunch and learns and PA Days.

Balanced Math was created by SCDSB teacher Lee Sparling in 2005. Another teacher team has led its sharing over the past 6 years through MISA, TLLP and Provincial Knowledge Exchange funding. Currently, we have mentor teachers, board IRTs and administrative staff sharing and monitoring this initiative with educators K-8.

Indicators of success include this framework's scalability and sustainability. In this, our sixth year of supporting teacher-directed learning, approximately 140 teachers from over 35 schools chose to participate in a Balanced Math Collaborative Inquiry. Additional indicators include improved math achievement triangulated in the classroom and measured on the EQAO assessment. In fact, our first sharing school was recognized last year as one of 11 Promising Practices Schools across Ontario based upon a 5-year growth in EQAO math achievement.

Sharing beyond our board includes OAME, CONNECT, the TLLP Summit, a Leadership publication, and a variety of digital forms including Teach Ontario, Twitter, CEA and GAFE.

What has been the impact on Student Learning?

Student Voice

- 73% reported that they "definitely" or "most times" feel more confident about problem solving.
- 69.3% reported that they are better at communicating their math thinking.

"Since I've been in the Balanced Math program I have discovered a major liking for math. I used to dislike it!! I now think it is fun, and it encouraged me to take challenges of the right size, and made me more independent on math assignments." (Primary)

"It has helped me get more involved in language and math where I used to not say much of anything." (Junior)

"I liked Shared Problem Solving because you have to share your ideas and express yourself in a way I was never able to." (Intermediate)

Teacher Voice

"I expanded my knowledge of using technology in the rotations. Student engagement grows in correlation to the successful implementation of technology and quality problem-solving questions and activities. My assessment was enhanced with improved tracking during the guided sessions and the consolidation of learning goals for the whole activity."

Administrator Voice

"When I do walk-thrus during math time I see much more involvement, excitement and fun in classrooms. More students are talking accountably and working effectively with peers." -
Principal