

Directors Want to Know

August 2011

How MathGAINS supports development, implementation, and monitoring of Board and School Improvement Plans for Student Achievement.

MATHGAINS SUPPORTS FOR BIPSA AND SIPSA

1. Intervention Resources with Research Evidence
2. Classroom Resources
3. Professional Learning Resources
4. System-Level Resources
5. Leadership Capacity Building Activities

INTERVENTION RESOURCES

- **Gap Closing: Grade 6 and Gap Closing: Grade 9**
 - Supports teachers and students in closing gaps in learning.
 - Includes tools for monitoring progress in Board and School Improvement Plans.
 - Includes information to inform and guide system and school decisions on aligning resources to increase students' achievement and closing gaps.
- **Critical Learning Instructional Paths Supports (CLIPS)**
 - A series of connected research projects over five years has shown that use of CLIPS improves student achievement and increases both student and teacher efficacy.
 - There is evidence that CLIPS increases achievement for students at all levels, including student with learning disabilities.

- Tools for monitoring effectiveness of the implementation of CLIPS activities will be released this fall.
- **ELL Initial Math Assessments**
 - Initial assessments to assist with appropriate elementary programming and secondary placement for incoming students.

CLIPS are accessible 24/7 at www.mathclips.ca and uploadable to interactive whiteboards.

CLASSROOM RESOURCES

- **K-12 Big Ideas and Questioning**
 - These resource packages may be used to ground and connect board and school improvement plans with current ministry-recommended approaches to teaching and learning in mathematics
 - Continuing on the learning from last year, the Proportional Reasoning resource package will be used as the framework for sharing hyperlinked board-developed examples and samples of student thinking.
 - A new resource package on Algebraic Thinking is being developed and will also include student samples.

- **Classroom Dynamics**
 - Improving classroom dynamics is the single-most effective way to increase student achievement and close gaps.
 - These resources support the classroom teacher in classroom management, setup and relationship building.
 - Provincial pilot projects indicate that teachers welcome collaborative discussions about classroom dynamics practices and that these lead to collaboration on a variety of topics that increase teacher content knowledge and shift instructional strategies.
 - Includes tools for monitoring progress for your Board and School Improvement Plans.
- **Winning with Instructional Navigation Supports (WINS)**
 - K-8 Number Sense resource packages for students and non-educator facilitators.
 - For home use during school closures, no bus days, family vacations or for differentiated instruction in classrooms.

You can set up an RSS feed to keep track of what's new on the MathGAINS website.

PROFESSIONAL LEARNING RESOURCES

- **Digital Research Papers**
 - Provide guidance on how to implement effective board and school improvement plans for mathematics.
 - There are Digital Research Papers on Lesson Study, Demonstration Classrooms, and Effective Questioning.
 - These provide access to research findings in a user friendly format to support the understanding of complex processes and guide professional learning by teams and individuals.
- **Digital Professional Learning Modules**
 - These modules will mobilize knowledge related to key mathematical topics (e.g., Fractions)
- **No-Bus-Day Professional Learning Modules**
 - Currently being developed for teachers to maximize valuable professional learning time during the school year.
 - This resource may be combined with WINS for students.

SYSTEM-LEVEL RESOURCES

- These Leading Change resources support direction setting, connections from K to grade 12 and alignment with ministry policies and programs.
 - Evidence of Effectiveness provides research-affirmed evidence that innovations by schools, boards and the province are making positive impacts on student achievement.
 - Innovations by Boards showcases board

initiatives that have had a positive impact on student learning and achievement. They include video interviews with system-level leaders and attached files of materials used in the related school board.

- Key Directions and Frameworks provides higher-level overviews of aspects of mathematics teaching and learning. The frameworks demonstrate the interconnectedness of topics and may be of special interest to administrators and board personnel involved in professional learning for teachers.
- Research to Inform Decisions provides the reader with information that confirms the effectiveness of various approaches in mathematics teaching and learning.

LEADERSHIP CAPACITY BUILDING ACTIVITIES

- **Professional Learning for Mathematics Leaders and Coaches (PLMLC)**
 - Sessions are designed to help board representatives and interested educators remain current with the latest knowledge and thinking about increasing student achievement in mathematics and about closing gaps.
 - PLMLC sessions are planned throughout the school year based on a learning needs assessment and advice of an Advisory Panel. Student Success funding can be used to send board people to any of the face-to-face sessions offered.

- Each year, Math CAMPPP serves as a 5-day springboard to the upcoming series of related PLMLC activities. CAMPPP (Collaborative Actions for Mathematical Precision, Personalization and Professional Learning) focuses on a common theme from K-12 with breakout session for various divisions and/or roles.
 - Adobe Connect Professional Learning Series have increased in popularity and will be expanded in 2011-12.
 - Board-level coaches are encouraged to join the **Math Coaching Network** at coachingmathgains@gmail.com.
- **Provincial-Level Mathematics Coaches**
 - Available to help boards implement their BIPSA
 - Coaches can be called in, at board request and expense, to help facilitate the board's K-12 implementation activities.
 - Contact CAPB mathematics staff for details on accessing expertise from other boards and the provincial-level coach

All of these resources and more can be found on MathGAINS at www.edugains.ca. Check often for new materials, and opportunities.