



PRISM North Eastern Ontario (PRISM NEO) Research Project

Lead School Boards

Near North DSB
Rainbow DSB
Simcoe Muskoka CDSB

Lead Educators

Ross Isenegger iseneggerr@nearnorth.edu.on.ca
Judy Dussiaume dussiaj@rainbowschools.ca
Greg Clarke gpclarke@smcdsb.on.ca
Richard Gallant rgallant@smcdsb.on.ca

Participants

- Near North DSB, Rainbow DSB, Simcoe Muskoka CDSB, Algoma DSB, DSB Ontario North East, Huron Superior CDSB, Northeastern CDSB, Sudbury CDSB, Nipissing Parry Sound CDSB, and North Eastern Ontario School Authorities
- 57 teachers and 105 students (Grades 6- 10), 10 Special Education teachers, 20 math Leads/Curriculum Coordinators/Student Success Leaders, 17 principals

Lead Researcher

Dr. Ann LeSage annl@nipissingu.ca

Project Design

- Build teacher capacity for teaching mathematics through:
 - PRIME Number and Operations* teacher training for all participants - 3 days provided by publisher
 - PRIME* Administrative training - 2 days provided by publisher
 - PRIME* Facilitator training – 3 days provided by publisher
- Build Professional Learning Communities (PLC)– up to 9 days each
- Design student *Geometer's Sketchpad*® sketches

Research Questions

- How has the PRISM-NEO experience influenced teachers' conceptions of mathematics, their efficacy, and their teaching practices?
- How has the PRISM-NEO experience influenced student attitudes and achievement in mathematics?
- What do teachers and principals identify as factors inhibiting and supporting their efforts to improve mathematics instruction for students at-risk?

Research Instruments

- Teacher Attitude and Practices to Teaching Mathematics
- Teacher and administrative focus group interviews
- PRIME* Diagnostic Tools: Numbers and Operations (Tool F)
- Student Characteristics Survey
- Student exit interviews

Research Findings

- An increased awareness of teaching practices; increased teacher efficacy in instructional strategies and student engagement; improved knowledge of students at risk and appropriate instructional strategies
- Strong support for continuation of PLCs within schools and across boards
- Some improvement in students' Numbers and Operations knowledge
- Some improvement in student efficacy and confidence in doing mathematics
- A desire to continue improving knowledge/skills through one-on-one or small homogeneous group support for students

Successes

- Improvement was evident within the short timeframe of the research
- A bank of GSP® sketches that can be shared provincially

Conditions for Success

- Strong math leadership within the project
- PLCs within schools and across boards, connecting elementary, Special Education and secondary school teachers
- Logistical support & flexibility from school Principals

Lessons Learned

- Allow teachers to repeatedly cycle through discussion, reflection, and implementation over at least one complete school year.
- Math leadership needs to be readily available.

Suggestions based on experience

- Each board needs a mathematics curriculum leader, and where distances are great, more than one leader, so that support for teachers can occur regularly and often.