



Connecting Practice and Research
in Mathematics Education

Professional Learning Guide

**Math-Talk Learning
Community**

 **Ontario**

Math-Talk Learning Community

A Math-Talk Learning Community is a community where individuals assist one another's learning of mathematics by engaging in meaningful mathematical discourse (Hufferd-Ackles, Fuson and Sherin 2004 p. 82)

In a Math-Talk Learning Community, students are able to explain, defend, and justify their mathematics thinking with confidence.

In your classroom, this means:

- making both students and teacher responsible for asking questions;
- providing a supportive environment whereby students can confidently express their understandings, and explain, defend, and justify their mathematical thinking to others in the class;
- confirming that students are recognized as important sources of mathematical ideas by regarding their suggestions as valid and worthy of further exploration;
- encouraging problem solving in a variety of ways with students collaborating in reasoning and explaining solutions;
- requiring students to take responsibility for their own learning by asking questions in class, demonstrating their understanding of problems, and sharing their solutions with others.

Considerations

The evolution of a Math-Talk Learning Community is a process that requires significant time, effort, and support. Generally, it requires a progression from:

- a focus on answers to a focus on mathematical thinking;
- the teacher's role as "all knowing" to the role of coaching or facilitating;
- students' roles as passive participants to actively participating in classroom learning activities.

For more information, go to:

<http://www.edu.gov.on.ca/eng/studentsuccess/lms/library.html>

Hufferd-Ackles, K., & Sherin, M. G (2004) Describing levels and components of a math-talk learning community. *Journal for Research in Mathematics Education*, 35 (2), 81–116

My Personal Reflection and Plan

I consciously work on developing a math-talk learning community in my class:

- occasionally fairly often at every opportunity

What are two reasons I'm not working towards making my class a Math-Talk Learning community, at every opportunity?

Self Assessment: (Rubric: Hufferd-Ackles, Fuson and Sherin, 2004)

My class is here on the continuum of becoming a Math-Talk Learning Community in each of the four categories. My next steps will be.

Levels of the Math-Talk Learning Community: Action Trajectories for Teacher and Student Levels 0–3			
Questioning	Explaining Mathematical Thinking	Source of Mathematical Ideas	Responsibility for Learning
Next Steps	Next Steps	Next Steps	Next Steps

Is my math class a Math-Talk Learning Community?

- usually sometimes hardly ever

How does this response help me to think about developing a Math-Talk Learning Community in my classroom?

Other ideas and thoughts I have after hearing the comments of my peers:

Next Steps

Lesson from TIPS4RM that I will teach to focus on developing a Math-Talk Learning Community:

Lesson Goal:

After reviewing my “next steps,” I can move my class towards becoming a Math-Talk Learning Community in the following ways:

What I Will Do During the Lesson	What Students Will Do
<ul style="list-style-type: none">• • •	

If a Math-Talk Learning Community is new to my class, what do I need to do to prepare them for this evolving classroom environment?

What is my greatest concern about this lesson running smoothly?

How can I address this concern?

Other notes:

Lesson Debrief

I implemented the following strategies to move my class towards becoming a Math-Talk Learning Community, and noted the benefits:

Math-Talk Strategies	How the Students Benefited
• • •	

This experience has encouraged me to consider applying these strategies more often:

occasionally

fairly often

at every opportunity

I need to refine the following aspects of my class before it becomes a Math-Talk Learning Community:

The most effective part of this lesson was:

Other ideas and thoughts I have after discussion with my peers: