



Connecting Practice and Research
in Mathematics Education

Professional Learning Guide

Student-Centred
Investgations

Student-Centred Investigations

Student-centred investigations are learning contexts that require students to explore mathematics through inquiry, discovery, and research.

Student-centred Investigations help students discover new ways of thinking about mathematics.

In your classroom, this means:

- establishing a classroom environment that supports inquiry through which students can:
 - explore questions and engage in relevant discourse;
 - make sense of their observations and analyse their results;
 - connect different areas of mathematics;
- providing rich learning tasks for successful exploration; this is in contrast to many traditional mathematical tasks that require students to follow given series of steps to arrive at “the correct answer;”
- providing the opportunity for students to demonstrate diverse kinds and levels of performance in different ways.

Considerations

Student-centred investigations can be used regularly or as one successful strategy among many throughout the entire curriculum, as needed to support the explorations. After trying an investigation, reflect on and discuss the task with colleagues, and adjust the investigation, as necessary.

When students are engaged in rich tasks they may deepen their understanding and appreciation for learning.

For more information, go to:

<http://www.edu.gov.on.ca/eng/studentuccess/lms/files/tips4rm/TIPS4RMDDevMathLit.pdf>

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My Personal Reflection and Plan

I provide the opportunity for my students to engage in student-centred investigations in math class:

occasionally

fairly often

at every opportunity

In the last two weeks, how many student-centred investigations did the students engage in?

What are two concerns I have about students doing investigative tasks?

How can I learn about using student-centred investigations?

What are sources of appropriate student-centred investigations?

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 student-centred investigations:

Lesson Goal:

The investigations my students will engage in are:

The purpose is to:

The students will benefit by:

If doing student-centred investigations is new to my class, how can I prepare?

Other notes:

