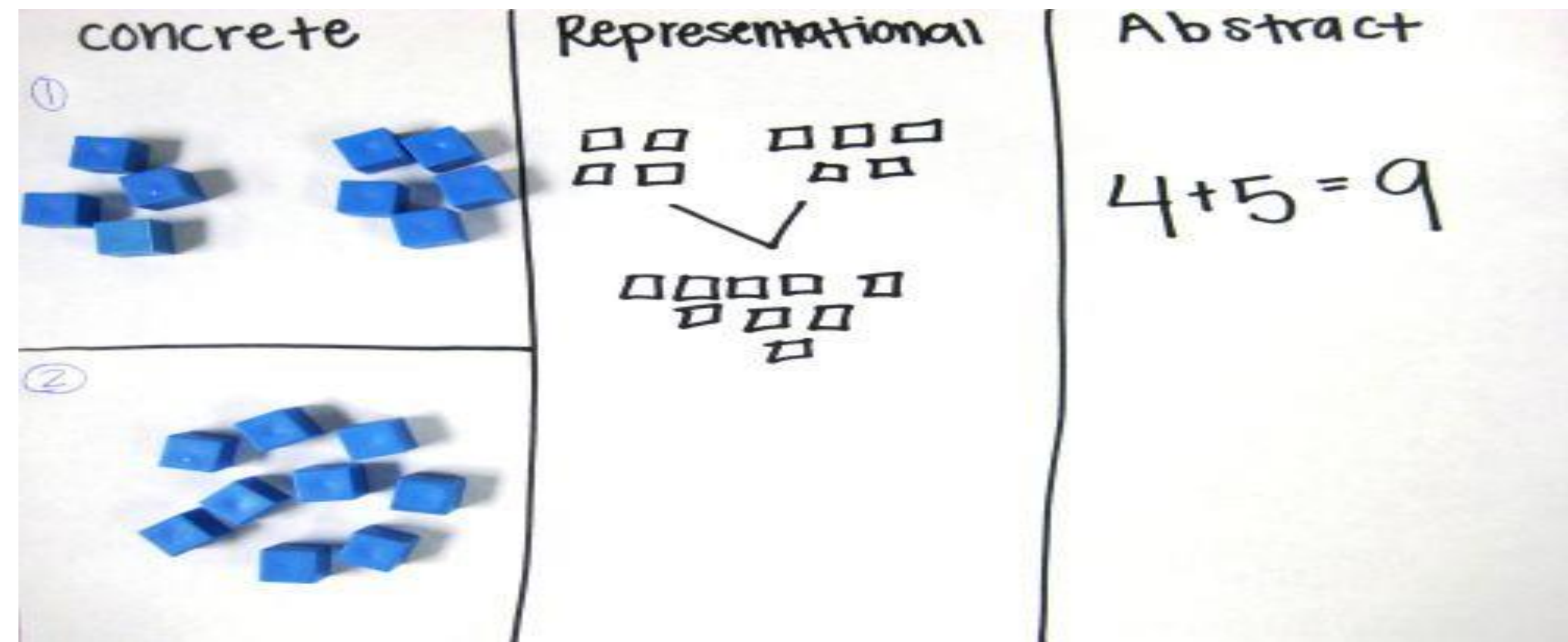


Jamie Riester
Math Specialist – Learning Math
Skills through CRA Strategies
Silverton Paideia

BACKGROUND

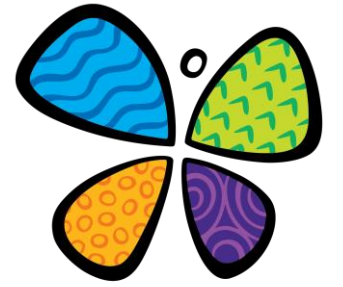


I am doing this project because I believe student scores will improve if they take the time to use math skills and strategies learned based on a structured instructional process (CRA) to solve the problems before submitting an answer.



The problem I experienced was students guessed on computer based tests without demonstrating and using math strategies or skills.

THEORY



AIM: 100% of math students in my Math Specialist small groups will correctly solve grade level math problems by drawing an accurate representation or solving abstract by January 17th.

Grade 3 Silvertown Paideia Fall Math MAP Scores

Fall: 7/38 students (18%) Proficient Level

Winter Goal: 26/40 students (64.5%) Proficient Level

Drivers:

- **Math skills based on RIT band score**
- **Math presented following the CRA process**
 - **Data based decision making**

LEARNING CYCLES



PLAN

What are we doing?
What can we try to help us improve?

Smart Aim:
100% of third grade math students in Math Specialist groups will correctly solve grade level math problems by drawing an accurate model to show their strategy by January 17th.
This will be measured bi-monthly on the MAP Skills assessment.

What are we trying to accomplish?
We are trying to determine if students have strategies learned through the CRA instructional process to solve math problems to find a correct solution.*

Concrete Manipulatives → Pictorial Representation → Abstract Symbols
2 + 4 = 6 → 2 + 4 = 6 → 2 + 4 = 6

***CRA-**

I will use a learned strategy to solve my math problems. I will show my knowledge through my work in my data folder and by selecting the correct answer on the MAP Skills Assessment.

Mrs. Riester

Math Specialist

ACT

Do we

- Accept
- Adjust
- Abandon

What changes can we make that will result in learning?

Teacher can intentionally present material using the CRA process.

Test can be administered in small groups or 1:1.

Test setting can be altered.

DO

What will we do to learn?

STUDY

Did we improve?
What do we need to adjust?

How will we know the change is an improvement?

Teacher and student will track and measure growth of accurate modeling of math with a rubric in individual data folders.

Students will use their own run charts.

Teacher will maintain a class run chart.

Teacher will use Map Skills scores to establish skill level of NW . M (Needs Work or Mastery)

Strategies

What strategies can students use to learn and practice?

Mrs. Riester will:

- Teach students how to model current math skills different ways
- Intentionally present material with the CRA process
- Teach students correct vocabulary
- Assign and administer MAP Skills
- Check student work for accuracy and grade it
- Teach in small groups for students who need more help.
- Teach her best every day ☺

Students will:

- Learn and use strategies to solve current math skills. (ex.-arrays, groups, repeated addition, tape diagram, skip counting, number lines)
- Learn and use vocabulary.
- Take MAP Skills and show their work
- Track their progress in their data folders
- Try their best every day ☺

Students at mastery after CPA progression instruction ↑

• students feel good about math

• students correct strategies

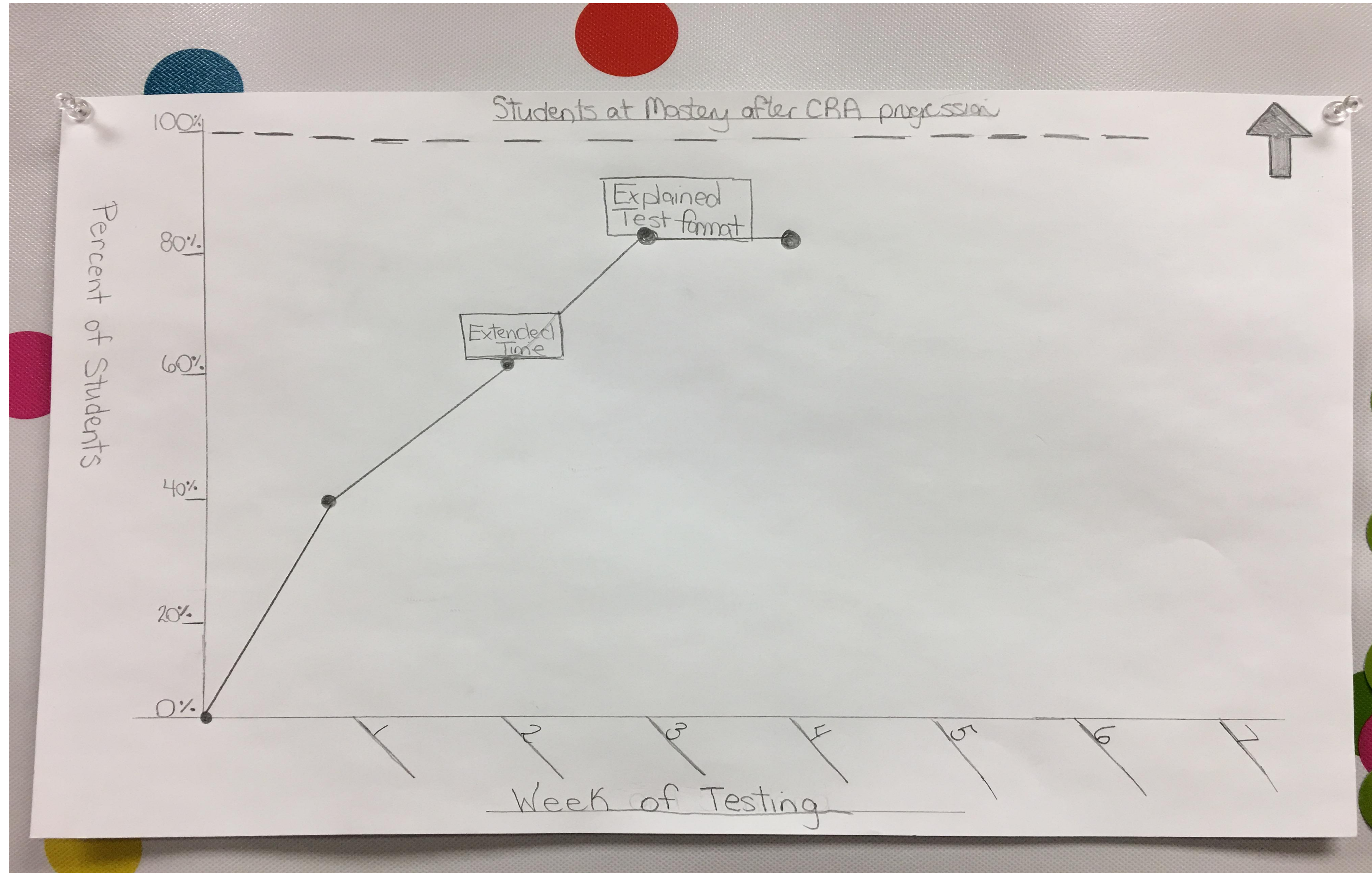
• students like math

• Mrs. Riester has a meeting

• students are absent

• not enough time

RESULTS



MOST PROUD & WHY



Students enjoy tracking their progress!



Students are discovering their own growth along with areas they need to improve.



Students have a strong sense of ownership for their math education.



Students are seeing and feeling success!

GREATEST CHALLENGE



Time is always the greatest challenge!



Student's not regularly attending school and missing small group interventions.



Convincing some students to believe in themselves.



Thank you

