Educational Excellence through Standards-Based Grading in Math

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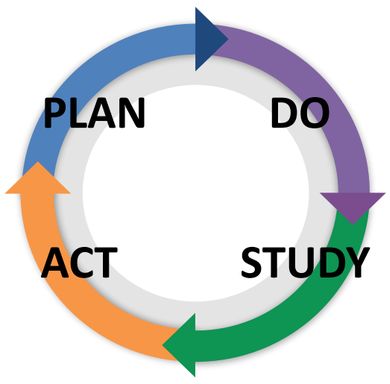


Problem Statement

The current grading system:

- Rewards speed over deep understanding
- Produces anxiety and discourages risk-taking
- Promotes answer-getting
- Conflicts with high-quality instruction materials (HQIM) and best practices around math instruction

PLAN

Between March 10th and May 9th, 5-10 students were graded on summative assessments 80% (product) and formative assessments and practice 20% (process).

Minimize the influence of factors like participation, behavior, and good faith effort towards how well students meet grade-level standards.

DO

The original disruptive idea was *abandoned* due to challenges with implementation and opportunity

- Disrupted due to testing season
- Timing challenges with starting in the middle of a quarter
- Difficult to manage and track progress - needed to use a whole class rather than a few students.

Revised Plan:

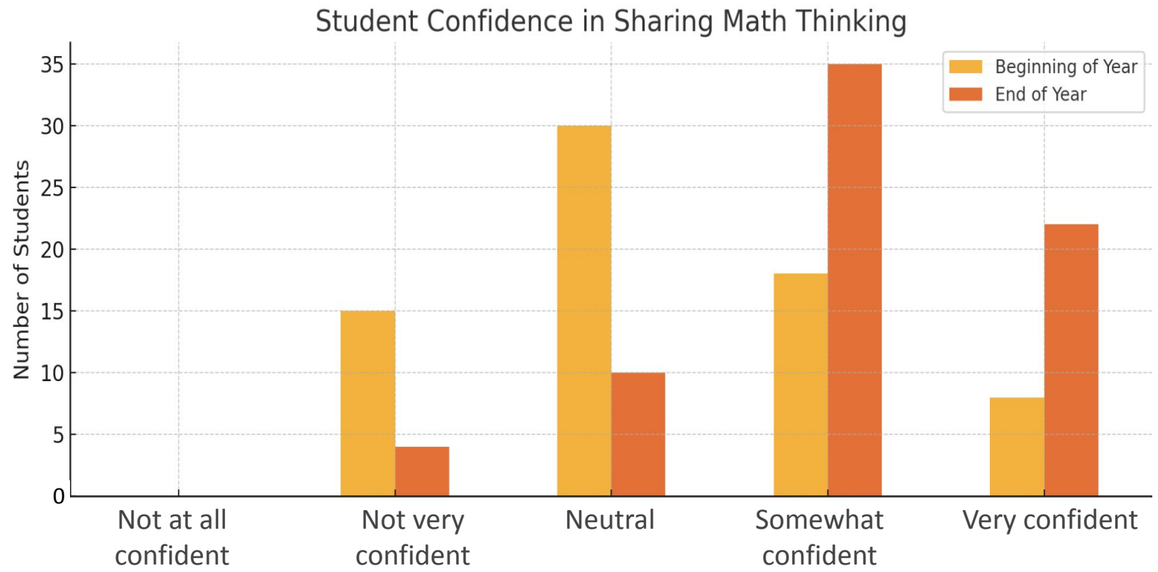
Use intentional teacher actions to shift students' mindsets from answer-getting to valuing the learning process; promoting risk-taking, learning from mistakes, and building math confidence.

STUDY

Student Math Mindset Survey (n = 71)

1) Confidence in Sharing Math Thinking: Start of Year: 37% | End of Year: 80%
2) Attitude Toward Mistakes & Risk-Taking: 77 % say their attitude improved (54% - somewhat, 24% "a lot")
3) Process vs Answer: 89% now say the process is as important (or more) than the answer
4) Teacher Actions Students Value Most: Learning from mistakes without penalty, 82% | Time to talk through thinking, 75% | Encouraged multiple strategies, 75% | Created a safe space, 72% | Positive feedback even when wrong, 69%

Student Confidence in Sharing Math Thinking



ACT

Adopt Plan

- Provide opportunities for metacognition to deepen students' awareness
- Scale to other math teachers in the building to expand impact
- Refine and codify teacher actions that have the greatest impact on student learning

Key Results

★ Confidence in sharing math thinking doubled.
★ Mindsets shifted from answers to process.
★ Risk-taking and learning from mistakes increased.
★ Positive impact across all student groups.

Lessons Learned

➢ Learned the value of pivoting from the original plan when needed
➢ Gained experience applying the full PDSA cycle
➢ Benefited from having a mentor for guidance
➢ Recognized the importance of collecting baseline data to measure growth effectively

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