

The Effect of Standards Based Grading on the Developing Growth Mindset in a High School Physics Classroom

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Treatment Plan

- Initial Student Survey Completed
- Routinely Assessed on content-based standards using SBG
- Assessments graded on a 4-point scale.
 - P=Proficient, R=Refining, L=Still learning, N=Needs Work

- Midpoint Student Survey
- Routine assessments continue
- Grade Conferences

- Final Student Surveys
- Student Interviews
- Final Proficiency Scores Collection
- Final Data shared with students for reflection

Primary Question:
How does using a Standards-Based grading model impact growth mindset development?

Data Sources:

- Initial Survey
- Midpoint Survey
- Final Survey
- Student

Sub-Question:
How are proficiency scores impacted by students' developing mindsets?

Data Sources:

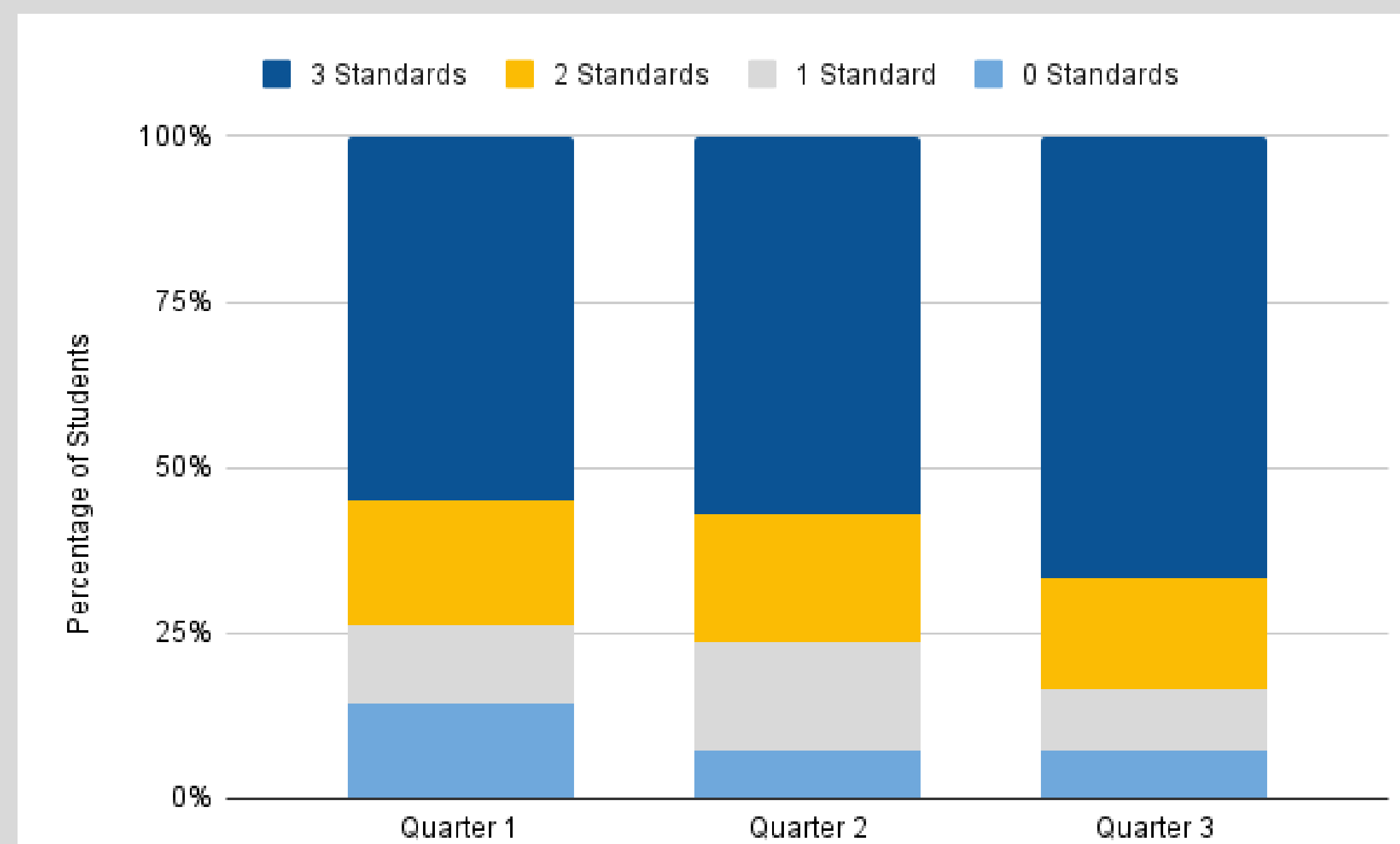
- Proficiency Scores
- Pre/Mid/Final Surveys
- Student Interviews

Sub-Question:
How will implementing SBG in a new content area impact me as an educator?

Data Sources:

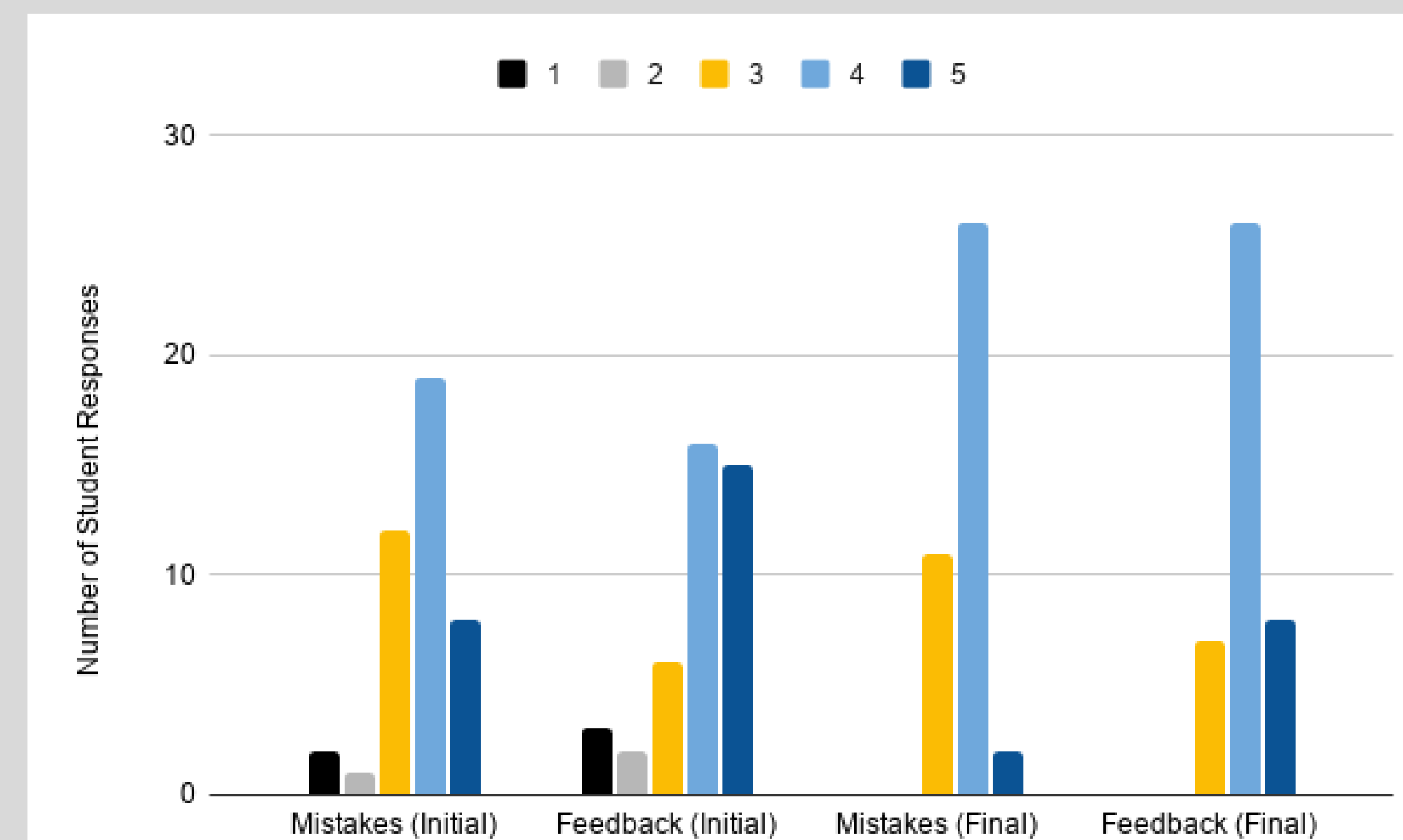
- Student Interviews
- Teacher Journal

Progression of Content Mastery



Each quarter had three possible content-standards for the students to master. In order to be "proficient" students needed to score a "proficient" on at least half of the assessments. This figure displays the number of standards mastered by the students per quarter. The percentage of students who mastered all three unit standards increased from 55% to 57% to 66% for each of the three quarters, respectively.

Progression of Mindset Development



Both the Initial and Final mindset survey used a Likert Scale to quantify the students' changing mindsets. Between the initial and final survey, 24% of students increased their mindset score for "accepting feedback" and "making mistakes." None of the students responses were lower than a 3 for either category in the Final student survey.

STUDENT QUOTES

"INSTEAD OF LOOKING AT HOW POORLY I DID ON A QUIZ, I CAN INSTEAD LOOK AT HOW MUCH I IMPROVED."

"LEARNING FROM MISTAKES IS THE BEST WAY TO LEARN AND FEEDBACK IS THE BEST WAY TO GROW AND IMPROVE. THIS CLASS GAVE ME THE TIME TO PRACTICE THOSE SKILLS."

"I USED TO LOOK AT MY GRADES AS MY SOLE TOOL TO REPRESENT MYSELF. I NOW SEE THAT I AM SO MUCH MORE THAN MY GRADE."

Conclusions

- Students found that using SBG improved their perception of critical feedback, willingness to make academic mistakes and increased their likelihood of taking on content-specific challenges.
- Content mastery improved over time as students developed a stronger mindset.