$\qquad$
2nd Grade
6-8 week dates

## Problem of Practice:

Identifying where students are and moving them forward on the addition trajectory.

## Hypothesis (Where we want students and/or teacher to be at the end of the coaching cycle):

By pre-assessing students' point of entry on the Addition Learning Trajectory and targeting Rtl instruction based on ability, students will move to a higher level on the trajectory.

Population: All student in $2^{\text {nd }}$ grade class (17)
Meetings with coach: Weekly coaching meetings Mondays 2:30-3:00pm
Coach in classroom: Tuesdays and Thursdays during intervention and Wednesdays during math class

## Plan:

1. Pre-assess students the week of Feb 25 with Addition Trajectory Pre- Post- assessment
2. Input data into the Addition Trajectory Tracker using a 1 for correct and a 0 for incorrect.
3. Look at current groupings across three Rtl groups and reassign as needed based on preassessment results for addition.
4. Utilize point of entry for small group instruction during Rtl. Use practice sheets for each level. Give students who complete entire trajectory correctly the Subtraction Trajectory Pre- Postassessment. Keep all students in the group moving at the same pace.
5. Use math talks and manipulatives to discuss solutions, counter misconceptions, and develop conceptual understanding.
6. Look at student progress the week of March 18 and readjust groupings if needed.
7. Post-assess week of April 1. Enter data in tracker.
8. Analyze data and make conclusions with coach. Determine changes in teaching going forward.

## Data:

Pre-Test Addition Trajectory Assessment (17 students)

- Most student were successful up to Levels 4-7.
- One student was not successful on any of the trajectory.
- $65 \%$ of the students also correctly answered the question at Level 11 (Three digit + three digit, no regrouping).
- One student completed the entire pre-assessment successfully so was not included in the instruction or post-test

Post-Test (14 students)

- The one student who was not successful at all on the pre-test did not progress. Add this info to the body of knowledge for progress monitoring and request for support.
- Everyone else grew at least one level.


## Data analyses:

- Students moved up an average of 4 levels
- Three students moved up 7 levels.
- The least amount of change was 0 levels ( 1 student).
- The greatest amount of change was 9 levels ( 2 students)
- More students changed five to nine levels (9 students) than zero to four levels (5 students)


Conclusion: Using a pre- and post-test to identify entry points on the addition trajectory and moving students through small increments in difficulty for addition skills (levels) was highly successful.

Level 11 was a nice review of adding numbers with multiple digits, even though most students were successful on the pre-assessment. This level was three-digit plus three-digit with no regrouping.

Most students were competent adding with no regrouping. They encountered difficulty when more than one digit in both addends required regrouping.

The teachers loved the simplicity and clarity of the process. It targeted exactly what students needed and provided them with readymade resources. The instruction and data keeping were easy to keep up with. The students were excited to discuss their solutions in small groups.

The concept of levels was very engaging for the students. In an era of virtual gaming where "leveling up" is highly desired, students were extremely motivated to move to the next level on the trajectory.

## Practice going forward:

- Include a mixed review sheet every two levels. Instruct two days, review one day for a threeday cycle
- Create alternative practice sheets for more practice
- Add word problems
- Create a tracker which the students can fill in for themselves

The teachers will be moving right into the subtraction trajectory having seen success in the addition trajectory. Neither of them can imagine teaching or reviewing computation in any way after their
experience with the skills trajectory method. They are interested in seeing how students do in computation as they enter $3^{\text {rd }}$ grade.

Sample of the data collection is below. This was data for the pre-assessment. You can see that there was a group ready to begin at Level 5 and a group ready to begin at Level 7.


