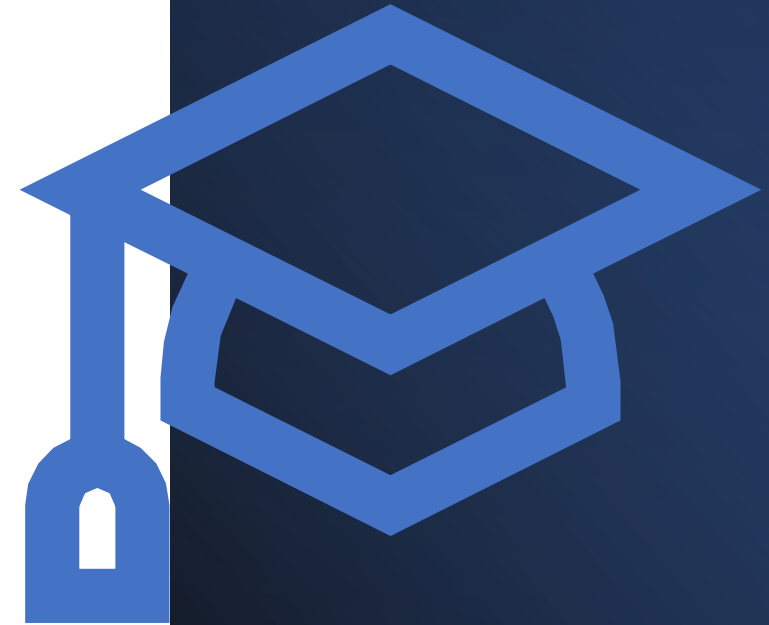


15 Years of MTSS/RTI: Lessons
Learned from Research &
Practice
March 5, 2021

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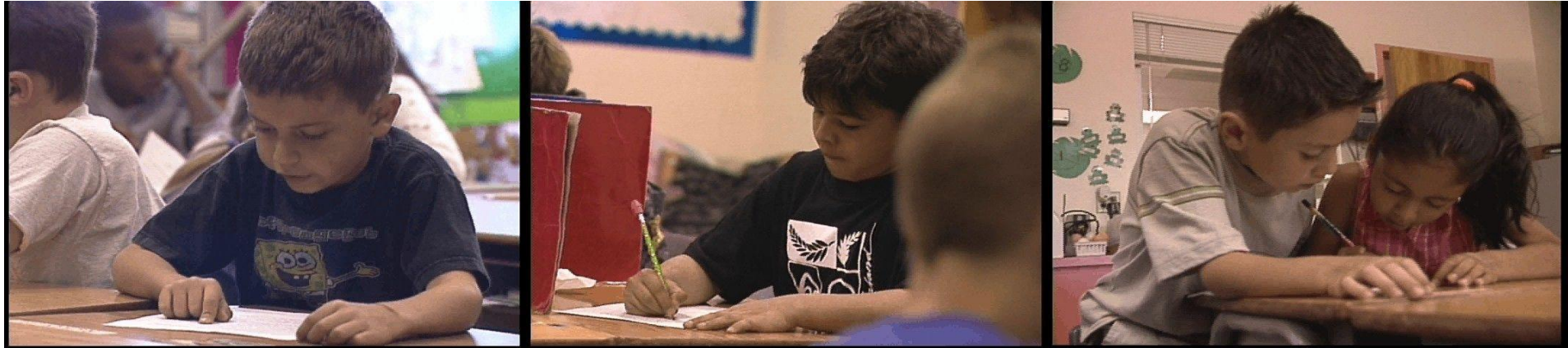
The Realities of Instruction

- The average second grade student spends about 1.5 hours per day of academic engaged time
- Classes with stronger academic outcomes
 - Allocate more academic time
 - Promote higher rates of academic engagement
- About half of the school day engaged in nonacademic or noninstructional activities
- With little variation across classrooms, children spent about 16 min of every hour waiting



<https://files.eric.ed.gov/fulltext/EJ1100409.pdf>: Rosenshine, B. V. (1981). How Time is Spent in Elementary Classrooms. *Journal of Classroom Interaction*, 17(1), 16-25.

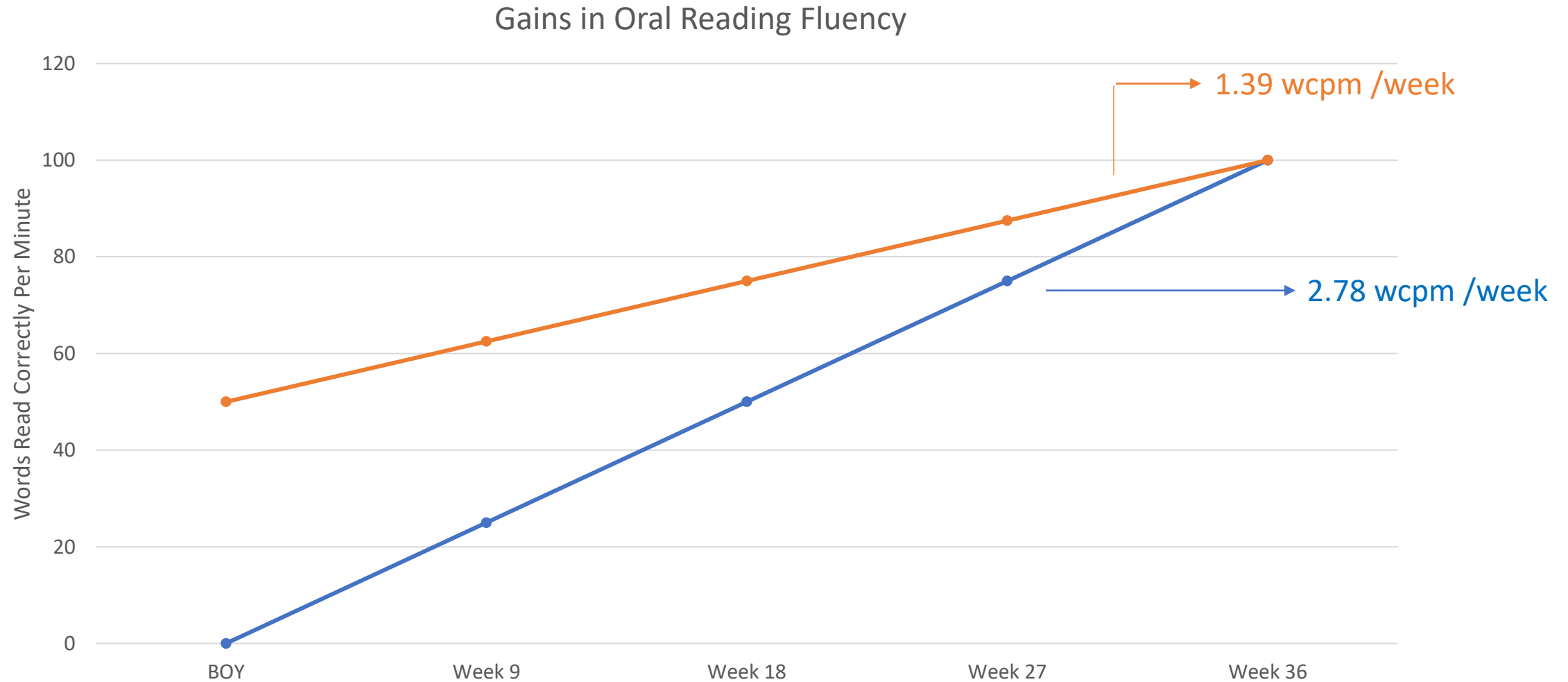
Some Children Require Surgically Precise Instruction to Meet Grade-Level Milestones



Trajectories are
changed with Quality
of Instruction

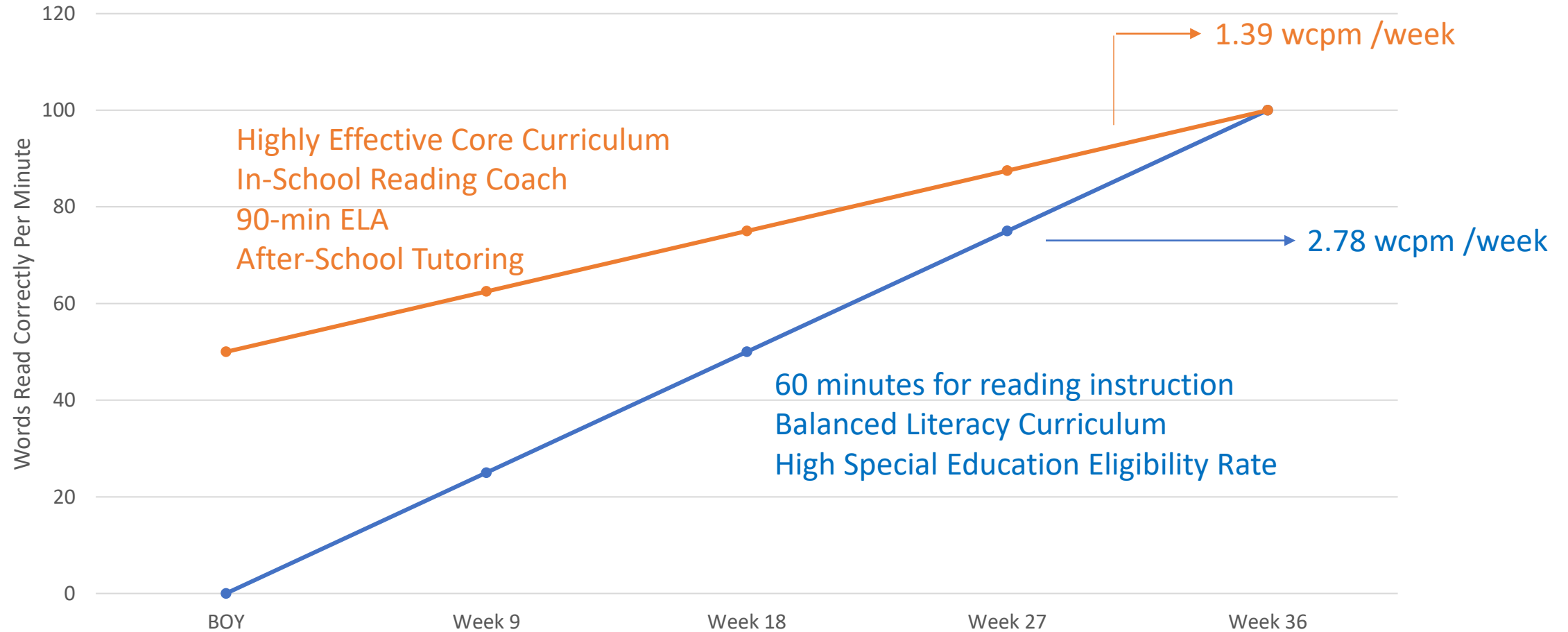
Instruction
Proof

Children Arrive with Different Skill Proficiencies

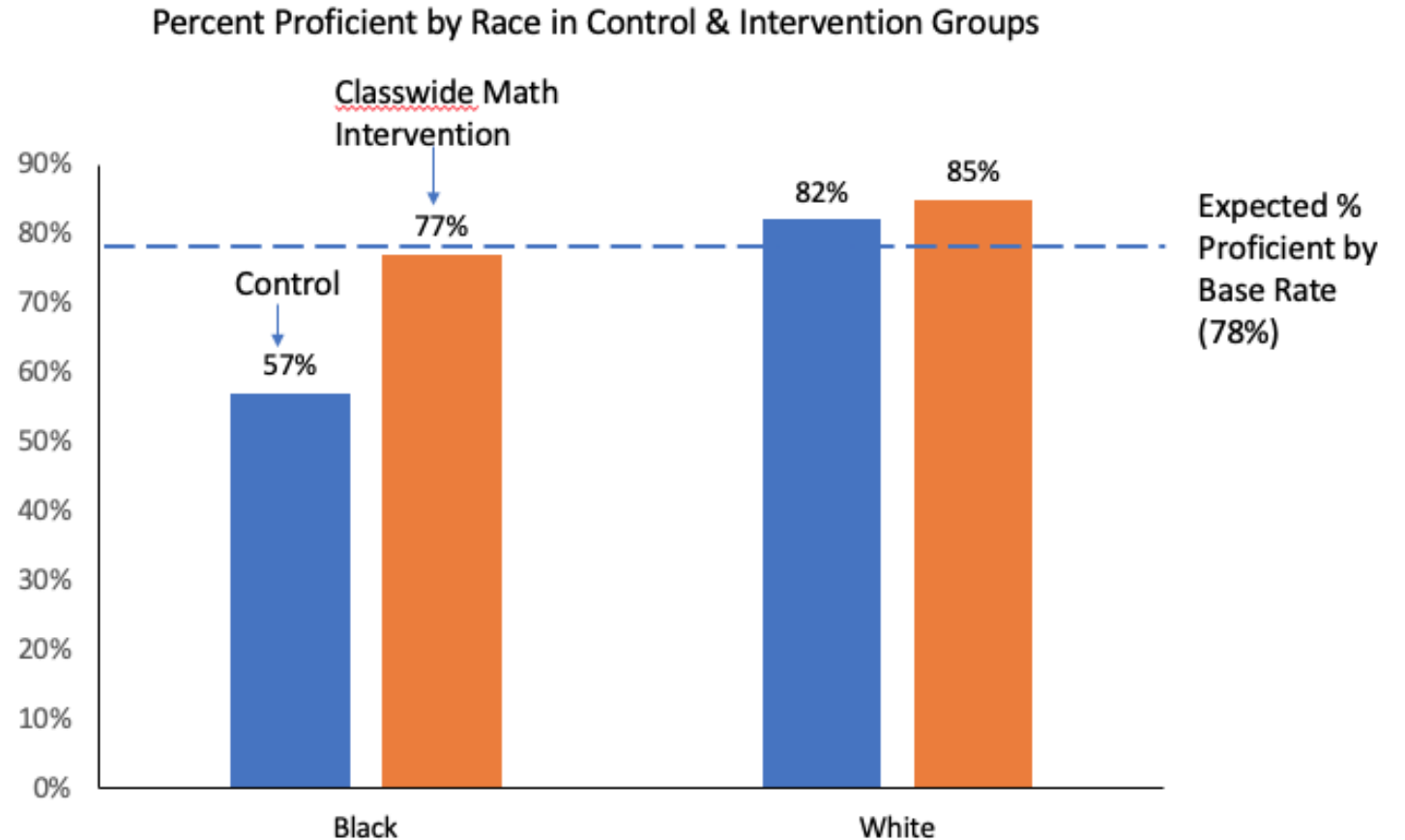


Schools Differ in the Quality of their Instructional Offerings

Gains in Oral Reading Fluency



Closing
Opportunity
Gaps Means
Delivering More
Effective
Instruction
Where It's
Needed



VanDerHeyden, A. M. & Coddling, R. (2015). Practical effects of classwide mathematics intervention. *School Psychology Review*, 44, 169-190. doi: <http://dx.doi.org/10.17105/spr-13-0087.1>

How Can We Do More with Less?

1. More Accurate Assessment or Determination of Academic Need (Use Classwide Intervention)
2. More Effective Instruction Delivered with Greater Efficiency (Avoid the “Instruction du jour”)



“in today’s context, the measurement technologies ought to become integral parts of instruction designed to make a difference in the lives of children and not just a prediction about their lives.”

Maynard Reynolds 1975 (p. 15)

Learning is a Very Predictable Outcome of High-Quality Instruction



Nonsense Word Fluency

Comprehension

Word Fluency

Writing

Passage Reading Fluency

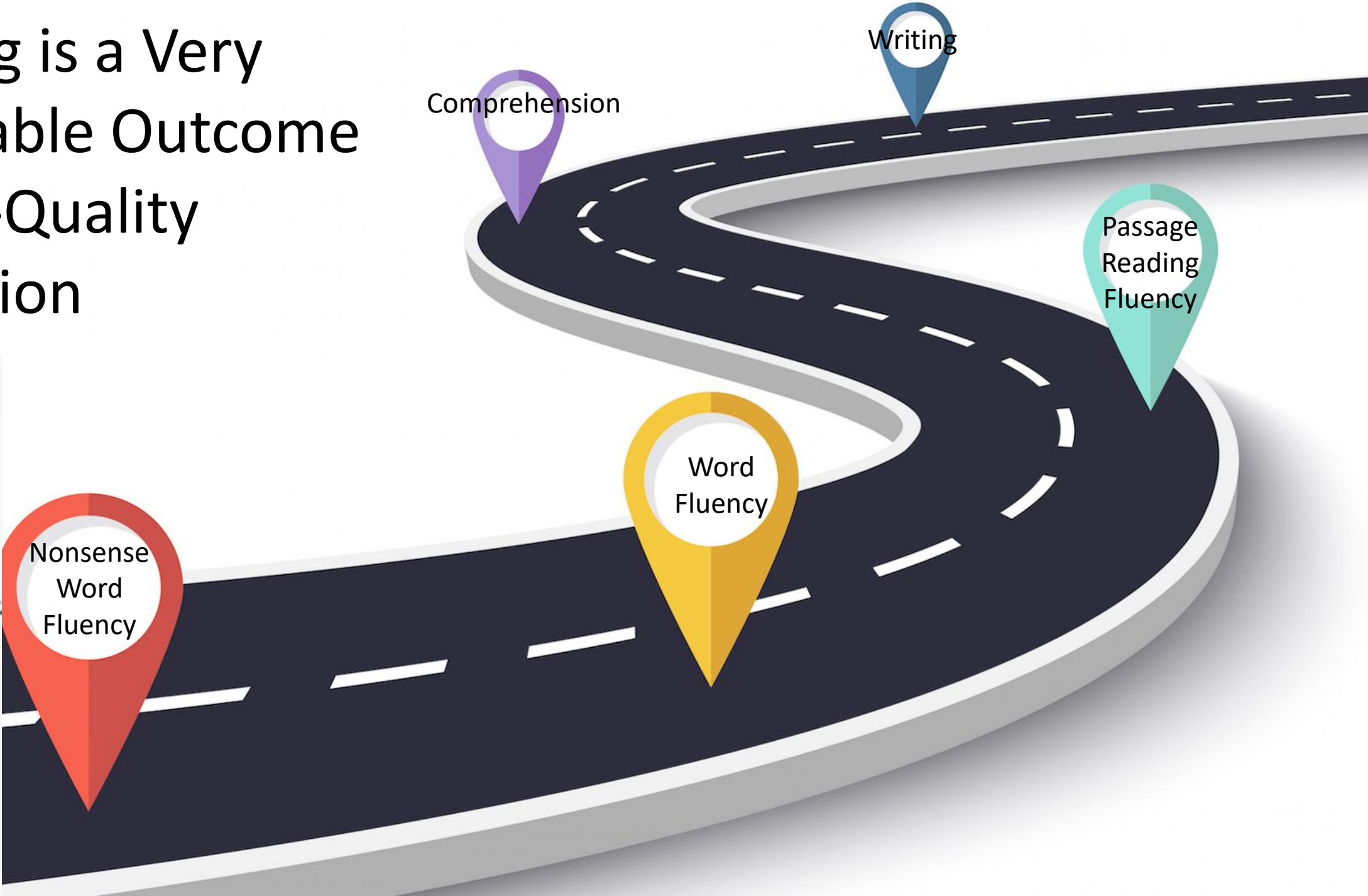
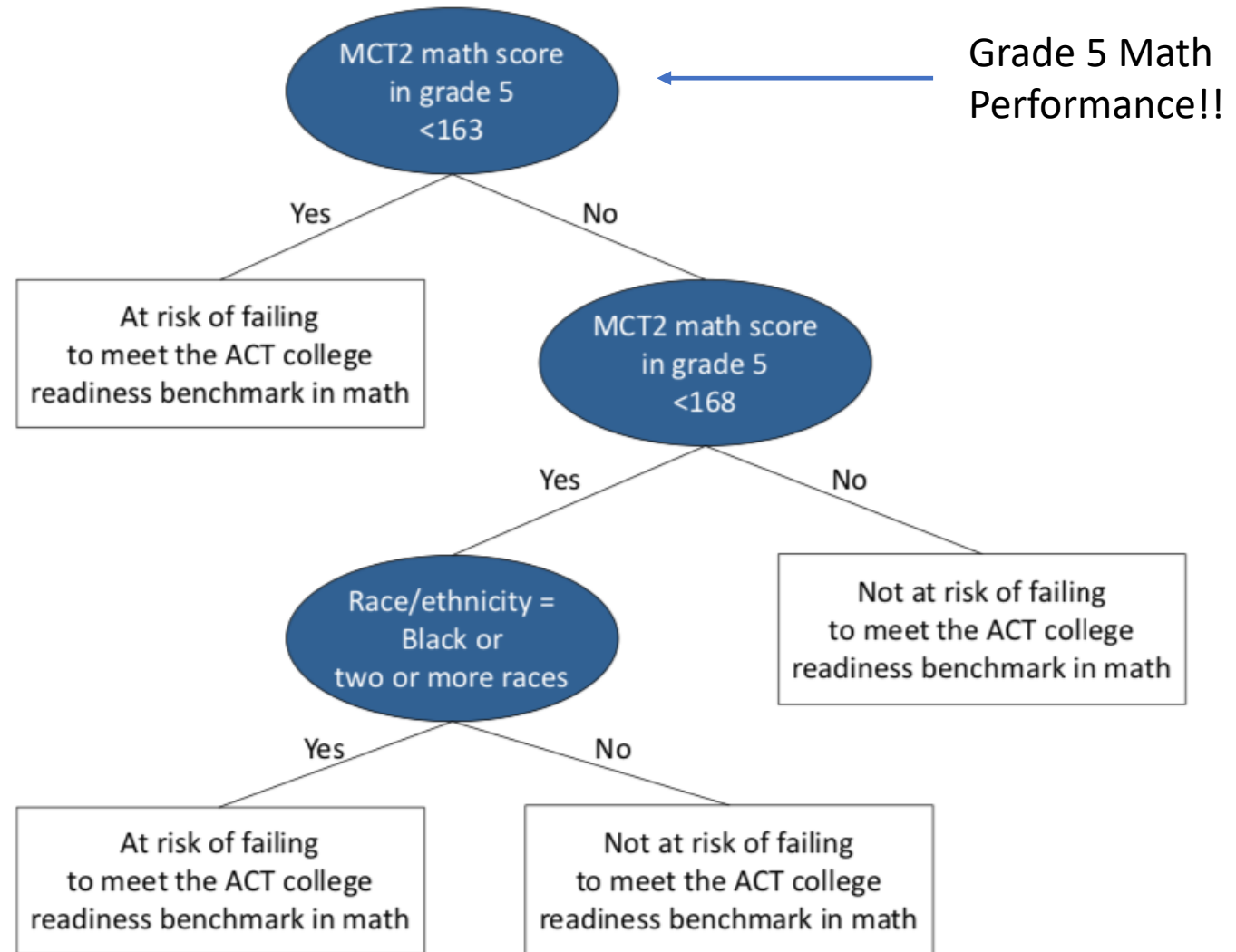


Figure 2. Classification and regression tree model decision rules for identifying Mississippi students as at risk of failing to meet the ACT college readiness benchmark in math, based on grade 5 math achievement and race/ethnicity, 2011/12–2016/17

Koon, S., & Davis, M. (2019). Math course sequences in grades 6–11 and math achievement in Mississippi (REL 2019–007). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast. Retrieved from <http://ies.ed.gov/ncee/edlabs>



Lesson 1: Specialized Instruction is a Myth.
Intensified Instruction is Real. Let's talk about
specialized instruction first.

Teachers Vary in Teaching Efficacy

- “... average gains in learning across classrooms, even classrooms within the same school, are very different. Some teachers year after year produce bigger gains in student learning than other teachers. The magnitude of the differences is truly large, with some teachers producing 1.5 years of gain in achievement in an academic year while others with equivalent students produce only ½ year of gain. In other words, two students starting at the same level of achievement can know vastly different amounts at the end of a single academic year due solely to the teacher to which they are assigned. If a bad year is compounded by other bad years, it may not be possible for the student to recover.”

p. 467, Hanushek, 2011

Risk Over Time is a Red Flag

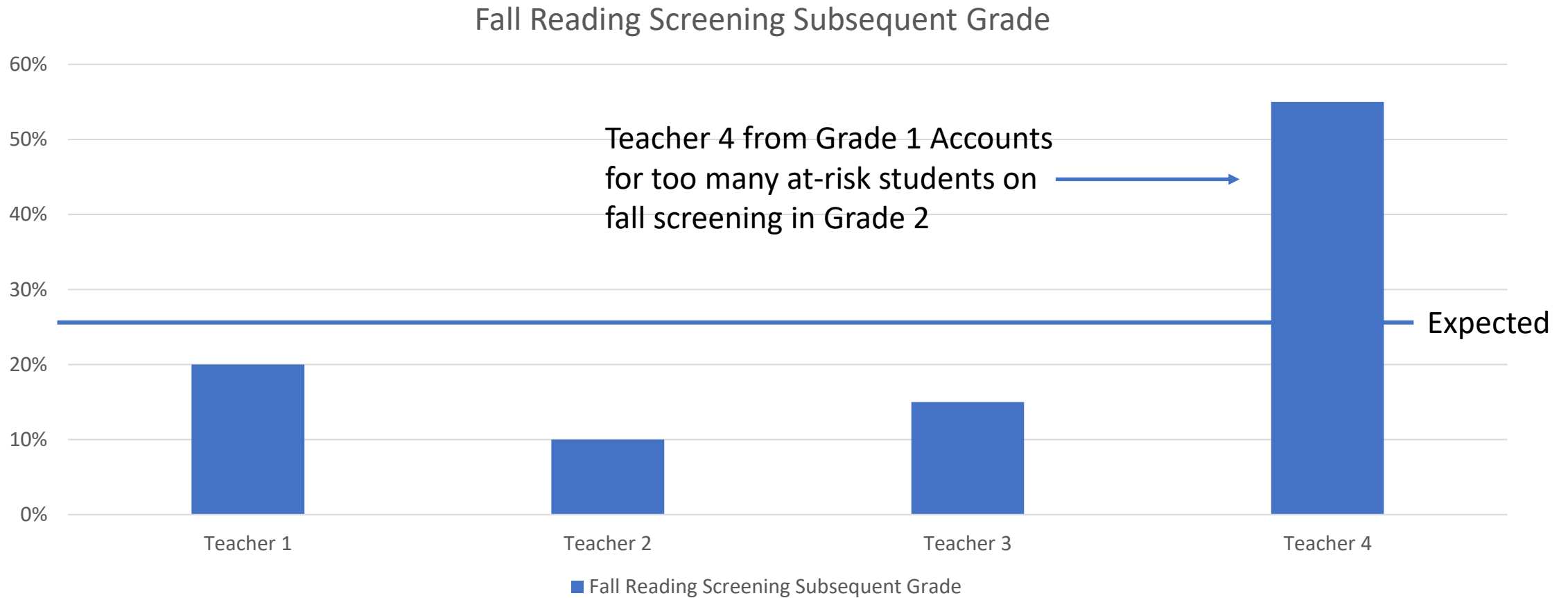
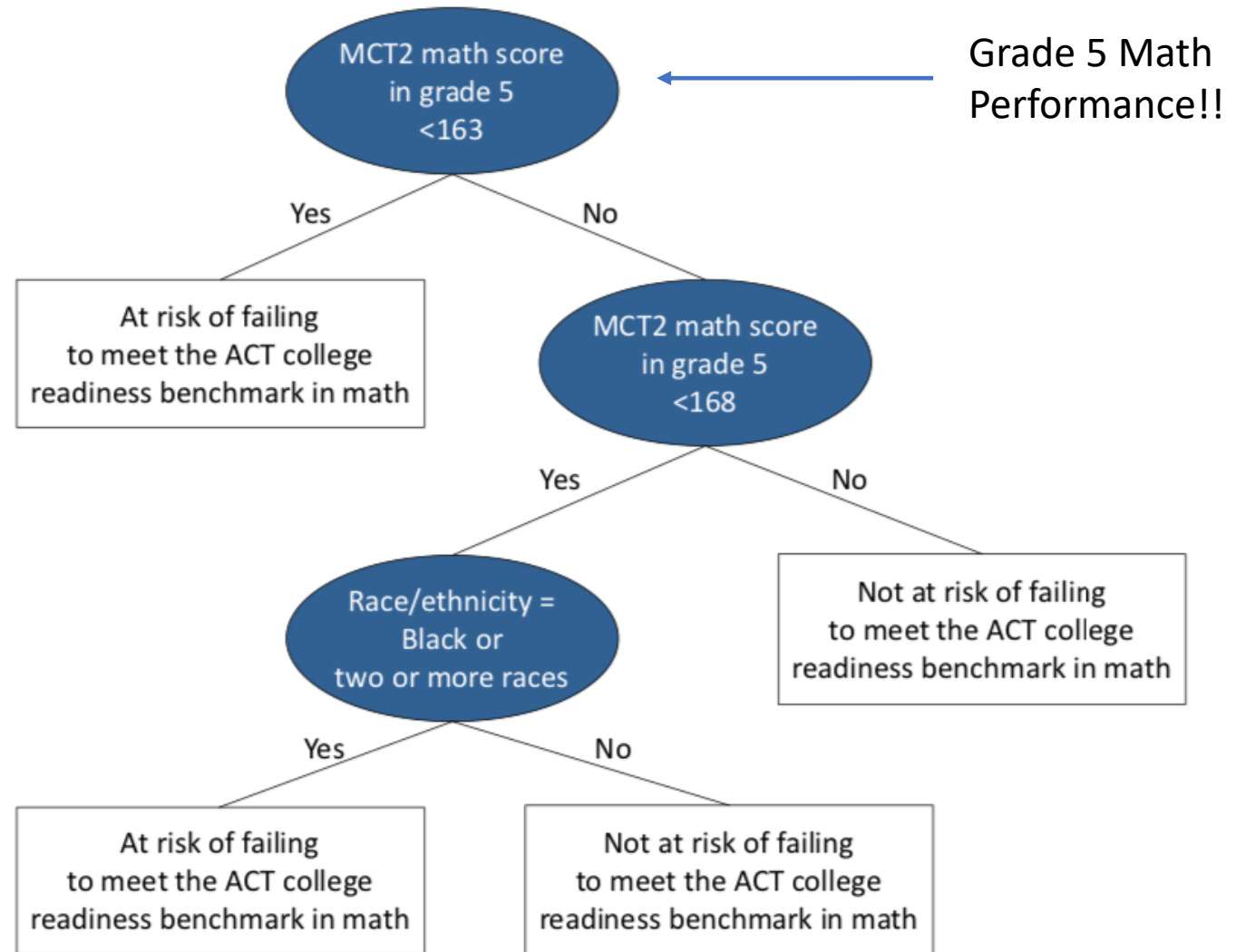


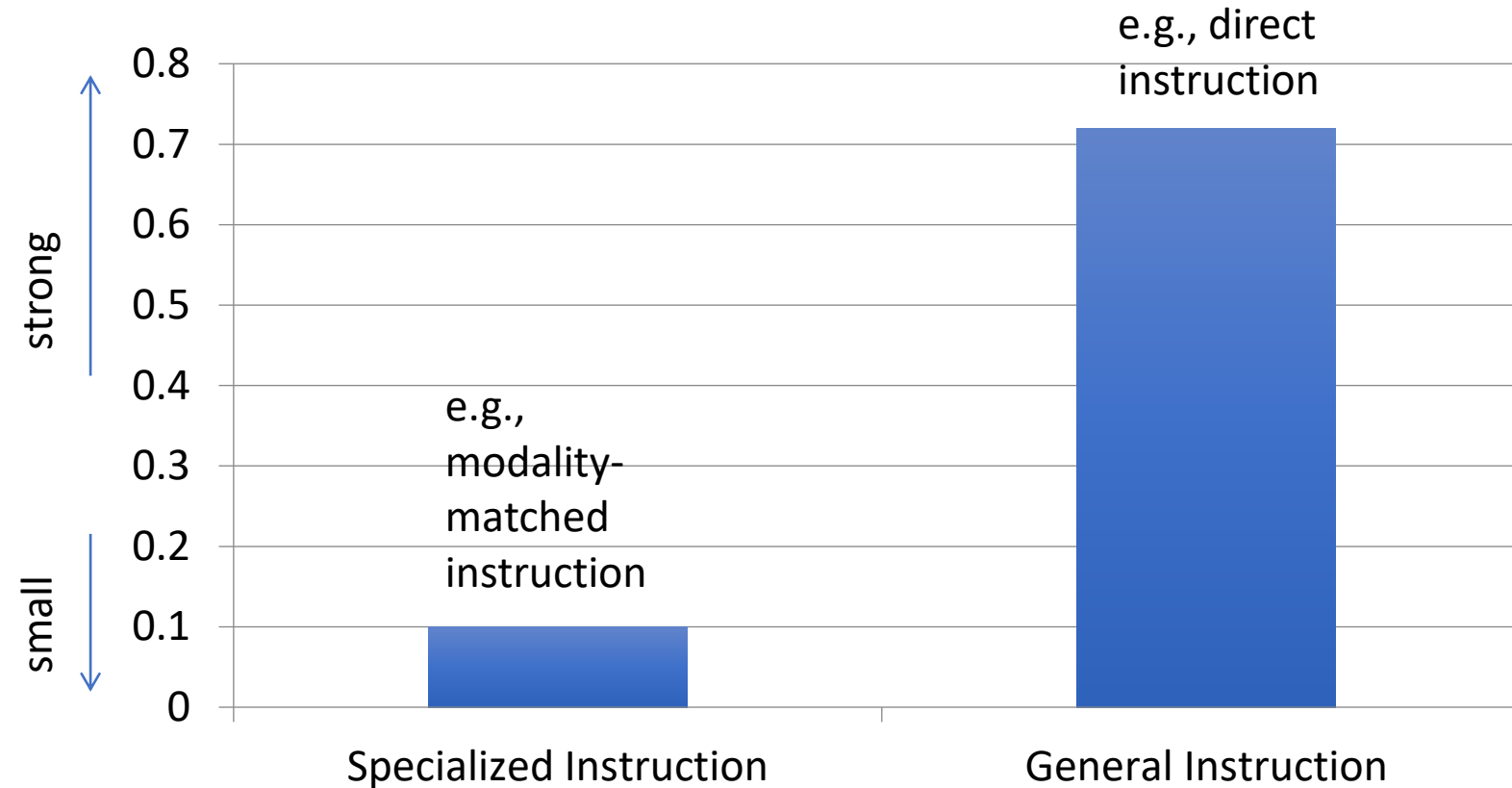
Figure 2. Classification and regression tree model decision rules for identifying Mississippi students as at risk of failing to meet the ACT college readiness benchmark in math, based on grade 5 math achievement and race/ethnicity, 2011/12–2016/17

Koon, S., & Davis, M. (2019). Math course sequences in grades 6–11 and math achievement in Mississippi (REL 2019–007). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast. Retrieved from <http://ies.ed.gov/ncee/edlabs>



No Effect for “Special” Instruction

Median Effect in Meta-Analysis

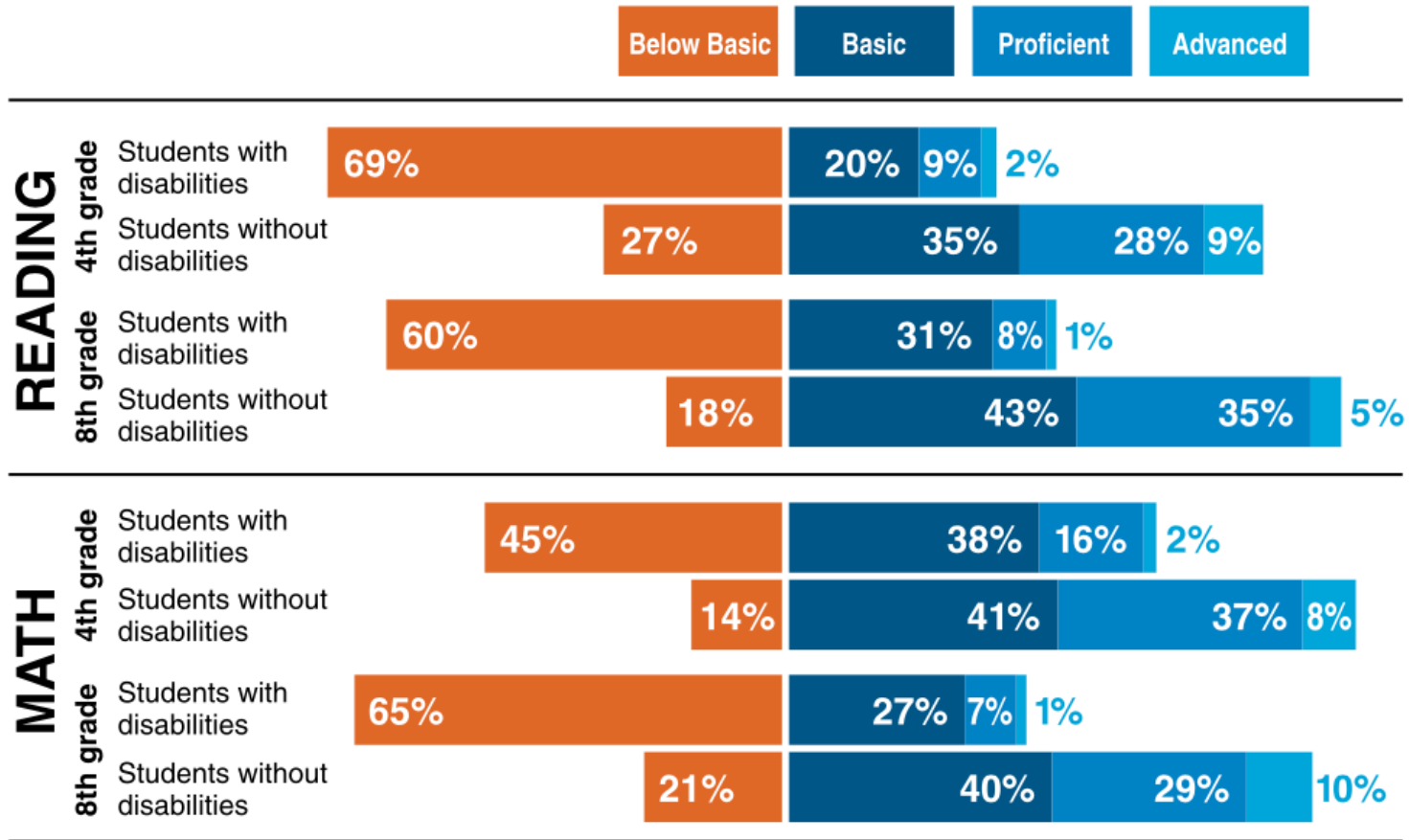


Reading comprehension	1.13
Direct instruction	0.84
Psycholinguistic training	0.39
Modality instruction	0.15
Diet	0.12
Perceptual training	0.08

Source: Kavale & Forness, 1999

Specialized Instruction Myth

National Assessment of Educational Progress (NAEP) 2013: How Students With and Without Disabilities Perform



Source: National Assessment of Educational Progress, Reading and Mathematics Grade 4 and 8 National Results, 2013.
Students with disabilities includes students with both IEPs and 504 plans.

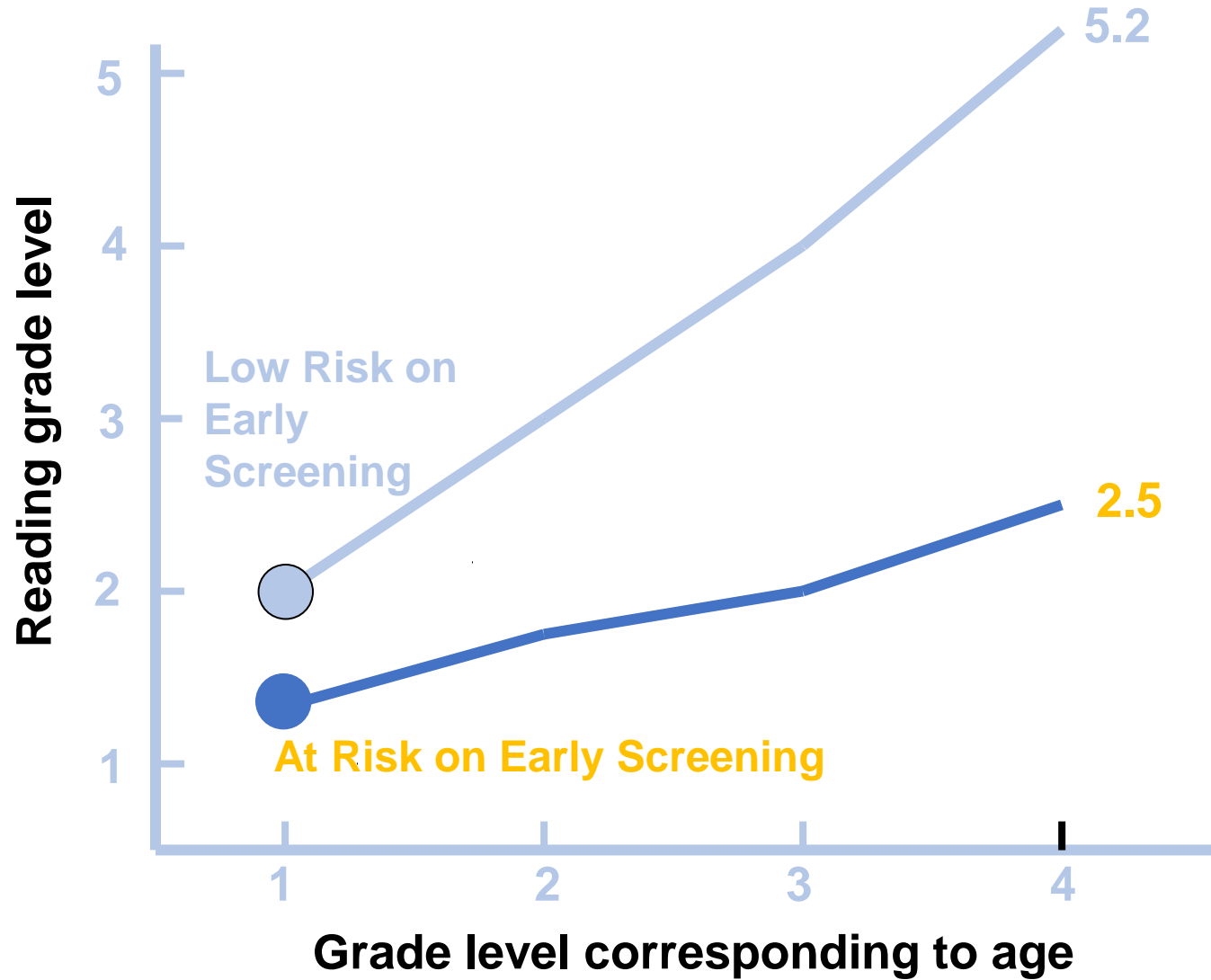
Cortiella, Candace and Horowitz, Sheldon H. *The State of Learning Disabilities: Facts, Trends and Emerging Issues*. New York: National Center for Learning Disabilities, 2014.



Lesson 2: Effective Instruction Saves Lives

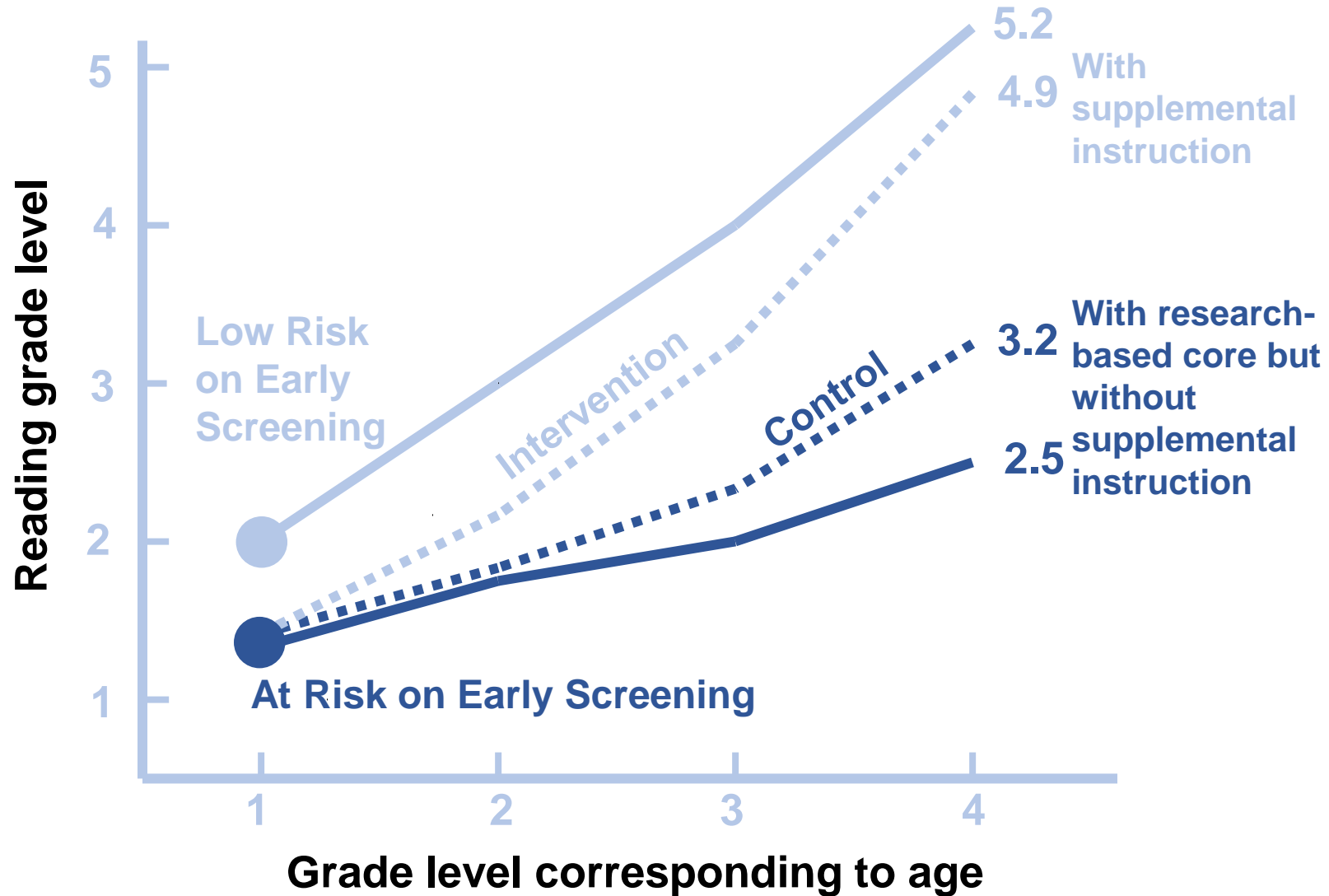
Early Screening Identifies Children At Risk of Reading Difficulty

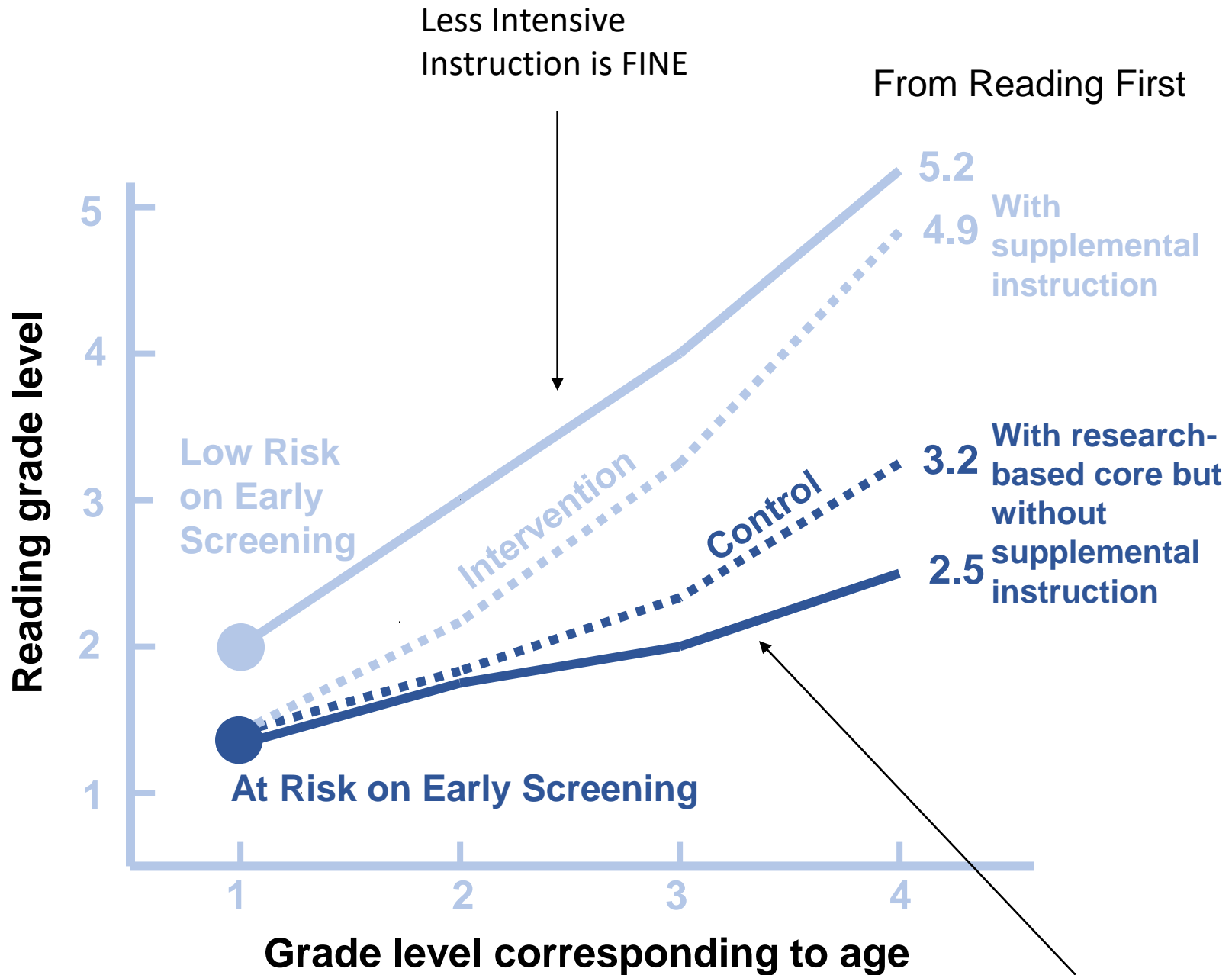
From Reading First



Early Intervention Changes Reading Outcomes

From Reading First





Less Intensive
Instruction is FINE

From Reading First

Low Risk
on Early
Screening

At Risk on Early Screening

Intervention

Control

5.2

4.9
With
supplemental
instruction

3.2

With research-
based core but
without
supplemental
instruction

2.5

ICU
Effective Instruction Saves Lives

What You DO Makes a Difference

Source: Hattie (2009)

Teaching	Effect Size
Quality of teaching	0.77
Reciprocal Teaching	0.74
Teacher-Student Relationship	0.72
Providing Feedback	0.72
Teaching student self-verbalization	0.67
Meta-Cognition Strategies	0.67
Direct Instruction	0.59
Mastery Learning	0.57
<i>Average</i>	<i>0.68</i>

Working Conditions	Effect Size
Within-class grouping	0.28
Adding \$	0.23
Reducing Class Size	0.21
Ability Grouping	0.11
Multi-Grade/Age Classes	0.04
Open v. Traditional Classes	0.01
Summer break	-0.09
Retention	-.016
<i>Average</i>	<i>0.08</i>

Effective Instruction Saves Lives

What is Teaching?

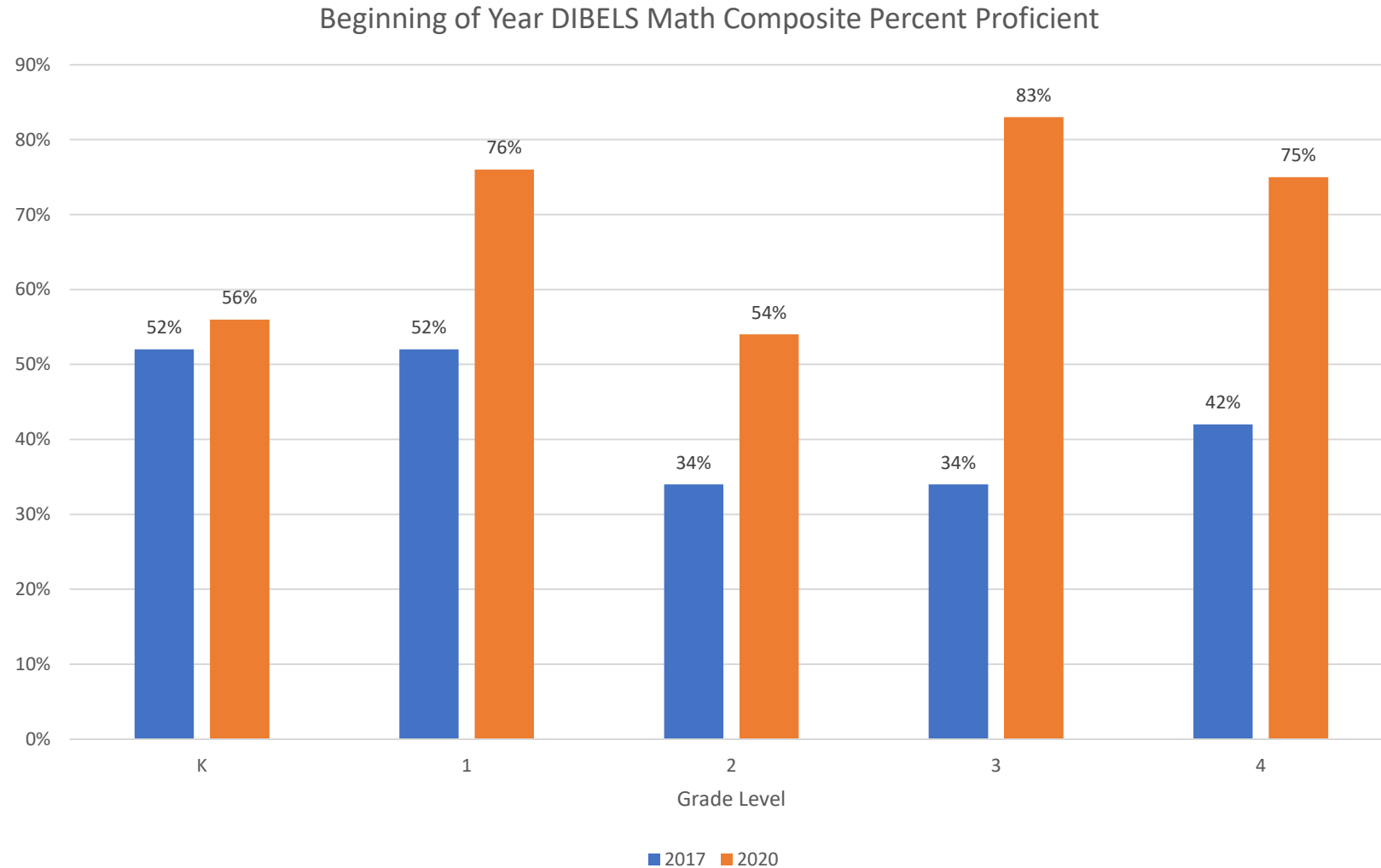
<https://www.abainternational.org/about-us/policies-and-positions/students-rights-to-effective-education,-1990.aspx>

Morningside Model of Generative Instruction and Kent Johnson



Effective Instruction Saves Lives

Prevention Effects from Effective Instruction Accumulate!

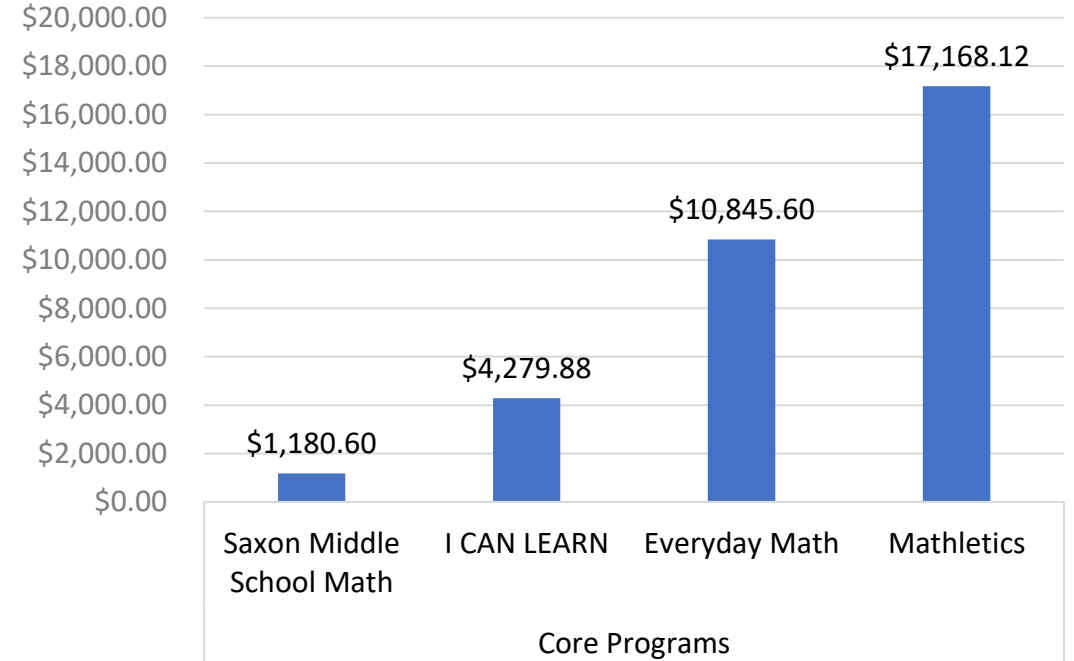
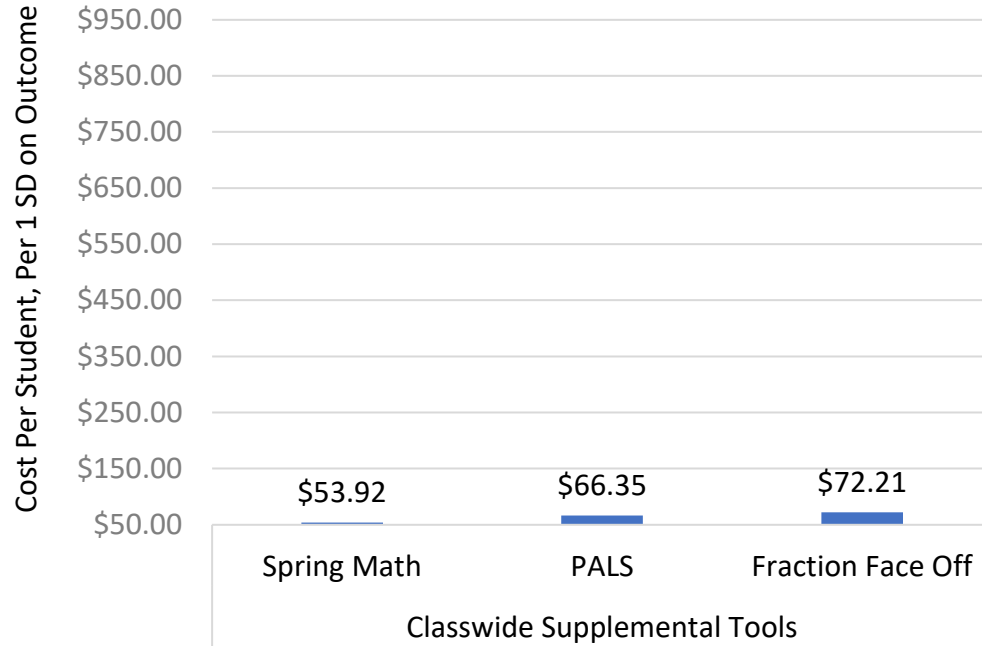


Look for Intervention w Strong Return on Investment

Cost Per Student, Per 1 SD gain in outcome

Incremental Cost Effectiveness Ratios

Lower is Better



“Changing math curricula as an approach for whole-school intervention when large numbers of students do not achieve proficiency is more costly than targeted, preventative math intervention” (Barrett & VanDerHeyden, 2020)

Barrett, C. A., & VanDerHeyden, A. M. (2020). A cost-effectiveness analysis of classwide math intervention. *Journal of School Psychology, 80*, 54-65. <https://doi.org/10.1016/j.jsp.2020.04.002>



Lesson 3: Use Classwide Intervention. Why?

- It takes 15-20 min per day.
- It's curriculum neutral and supplements.
- All students show benefits.
- It makes future risk decisions more accurate

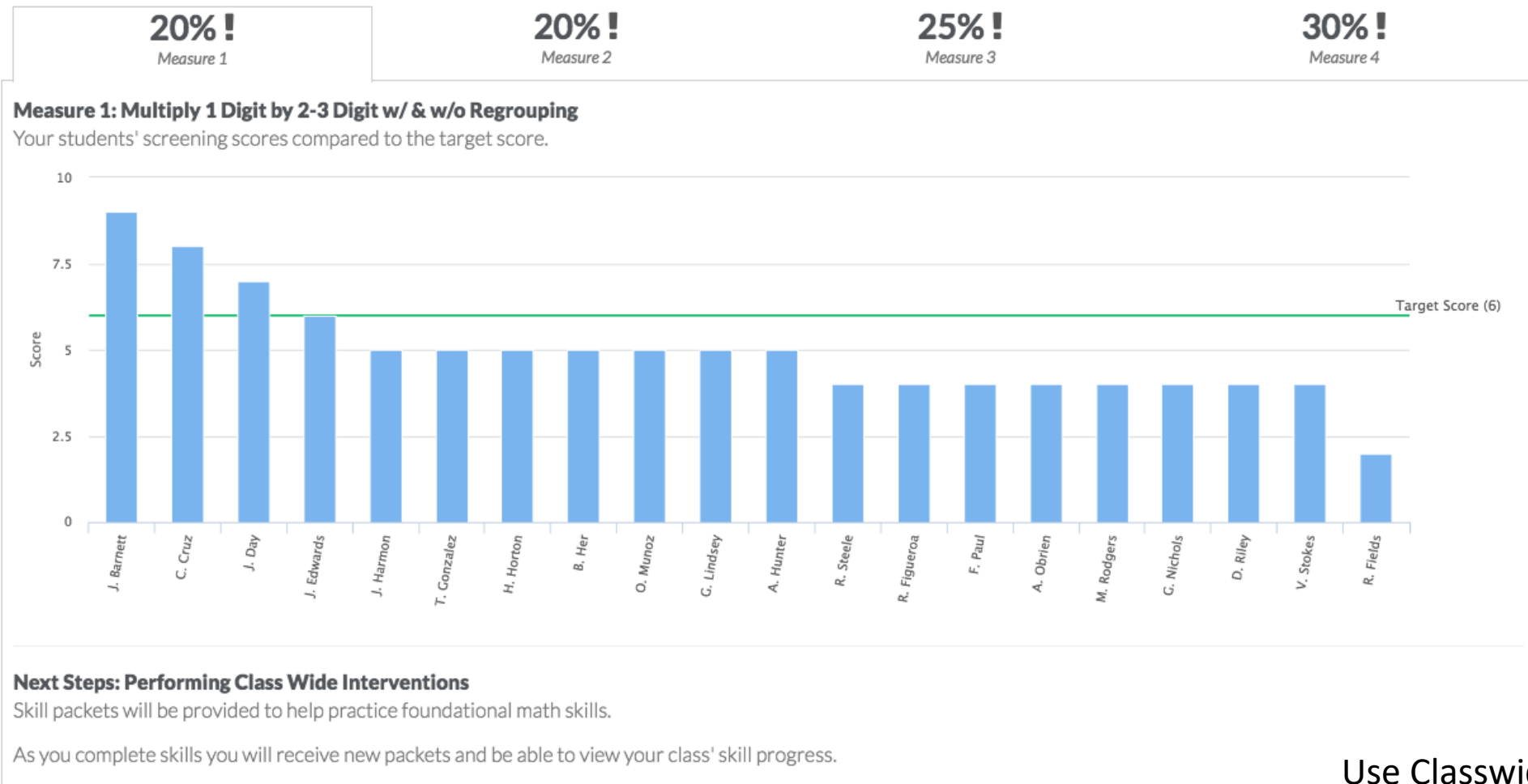
Use Class-wide Intervention

Classwide Intervention **Screening** Students

Classroom Performance

80% of your class appears to be at risk and in need of intervention to benefit from grade-level instruction.

We call this a classwide problem and *recommend a classwide intervention*.



High-Yield Action: Use Class-wide Intervention

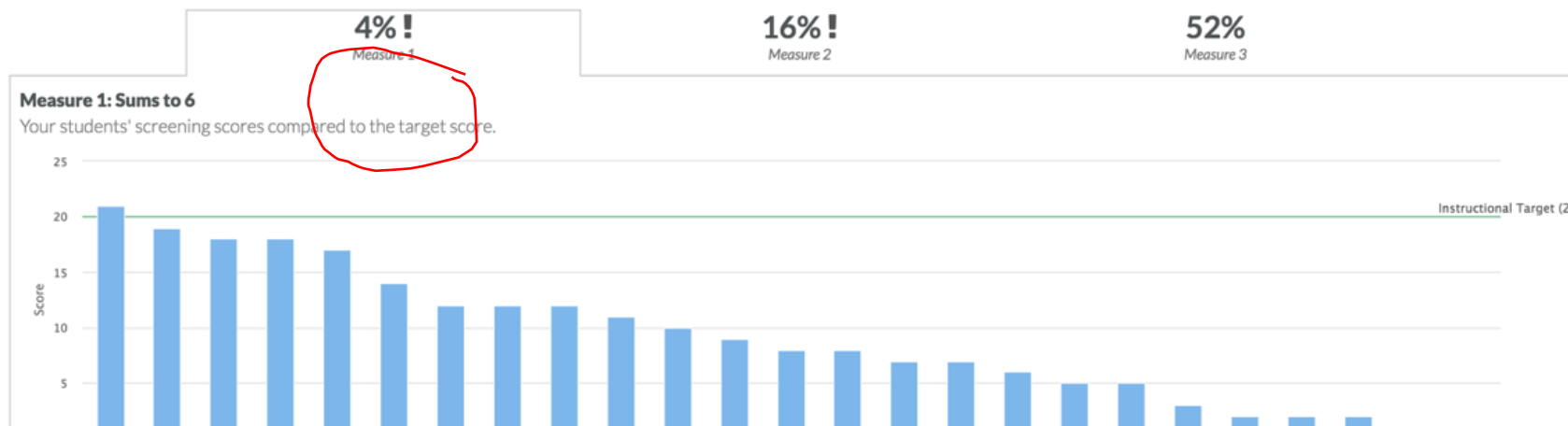
Classroom Performance

96% of your class appears to need extra practice to reach mastery at this this grade level.

We call this a classwide problem and recommend classwide practice to get the class on track to reach mastery.

Pre-Intervention

Pre →



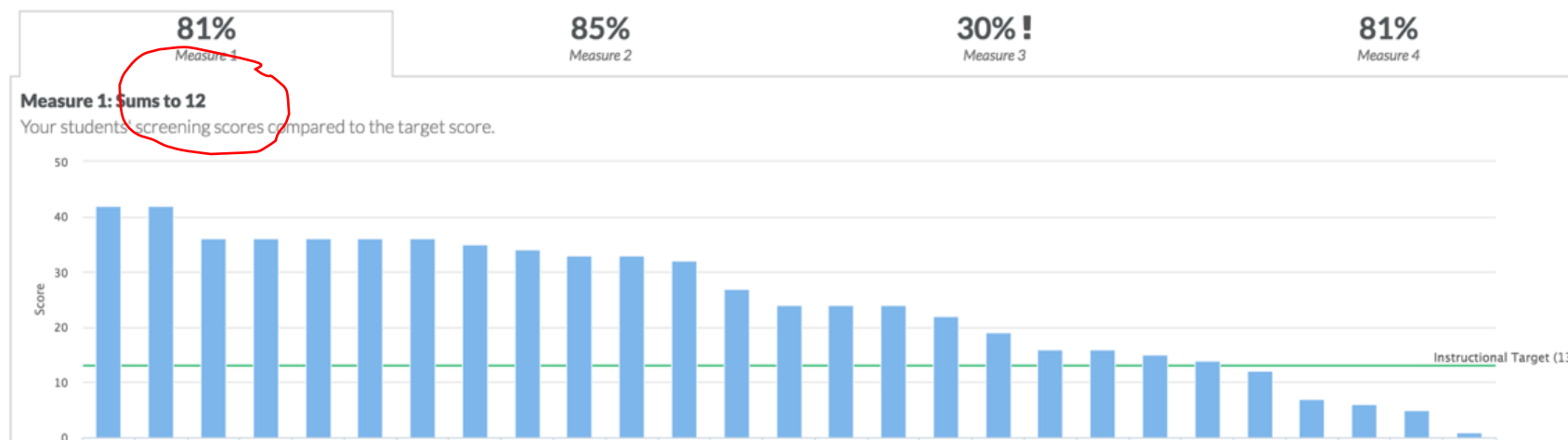
Classroom Performance

70% of your class appears to need extra practice to reach mastery at this this grade level.

We call this a classwide problem and recommend classwide practice to get the class on track to reach mastery.

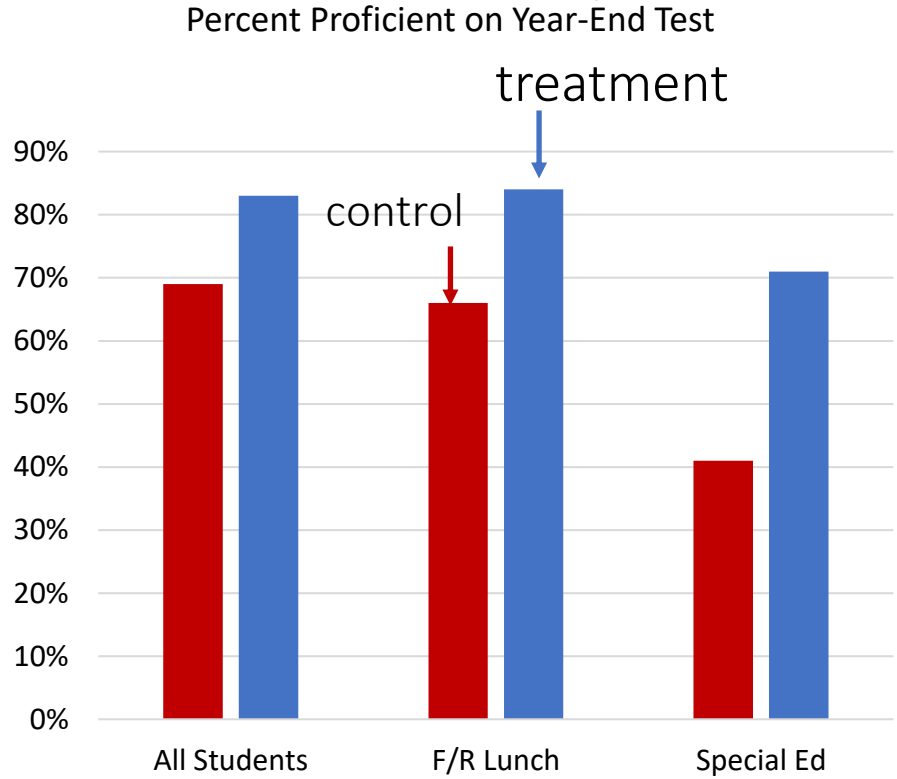
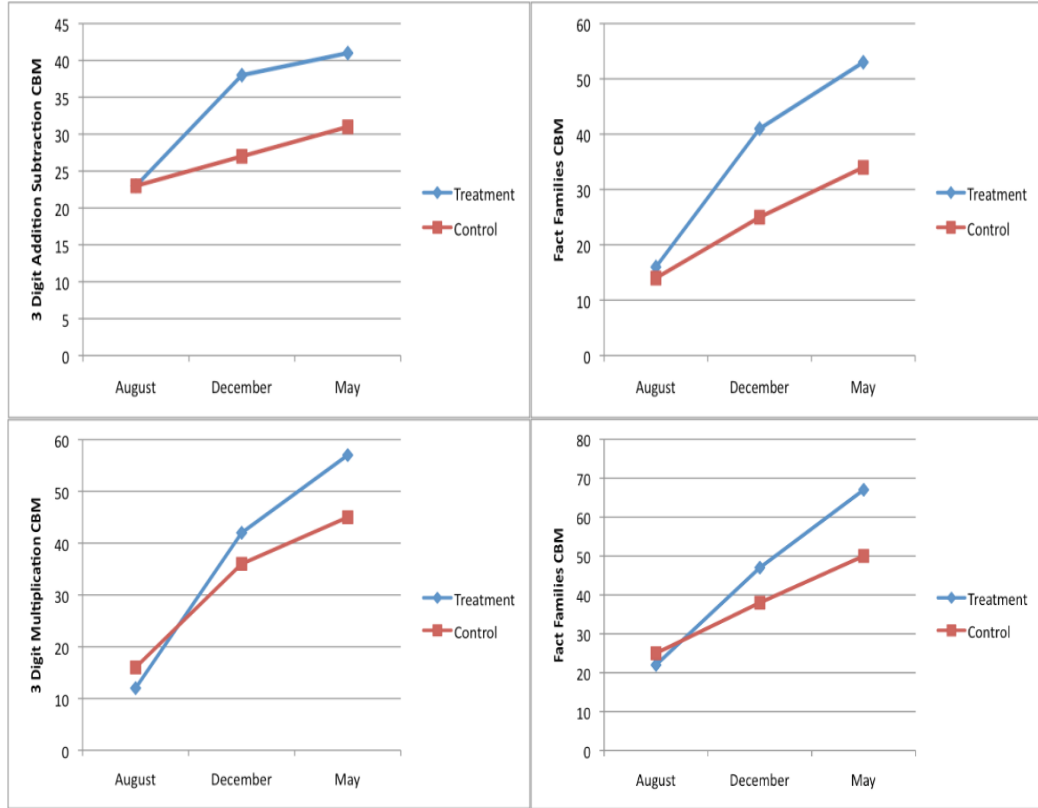
Post-Intervention

Post →



Use Classwide Intervention

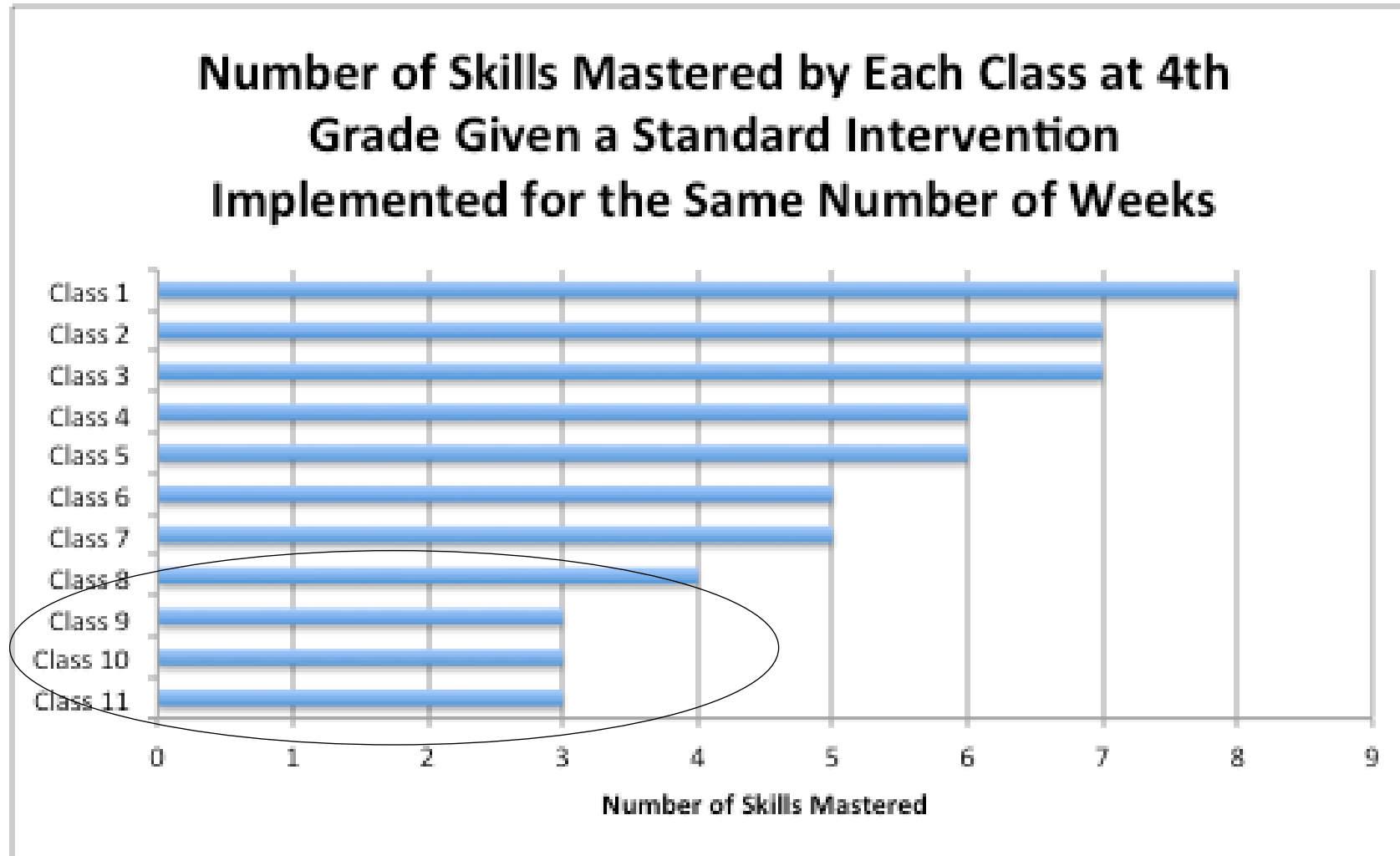
Classwide Intervention Works (when used well)



All	Title	Study	Study Type	Participants	Design	Fidelity of Impl.	Measures (Targeted)	Measures (Broader)
<input type="checkbox"/>	Spring Math	Coding, VanDerHeyden, Martin, & Perrault (2016)	Group Design	●	◐	●	●	●
<input type="checkbox"/>	Spring Math	VanDerHeyden, McLaughlin, Algina, & Snyder (2012)	Group Design	●	●	●	●	●

ES = .68 CBMs
 ES = .18 Gr 4
 ES = .79 for at-risk

Look for Lagging Classes– and Respond



Use Classwide Intervention

When Managed, Classwide Intervention Works!

	Absolute Risk Reduction	Number Needed to Treat
All Students	15%	7
Students receiving F/R Lunch	18%	6
Students receiving Special Education Services	39%	3
Low-Performing Students	44%	2

Source: VanDerHeyden, McLaughlin, Algina, & Snyder, 2012; VanDerHeyden & Coddling, 2015

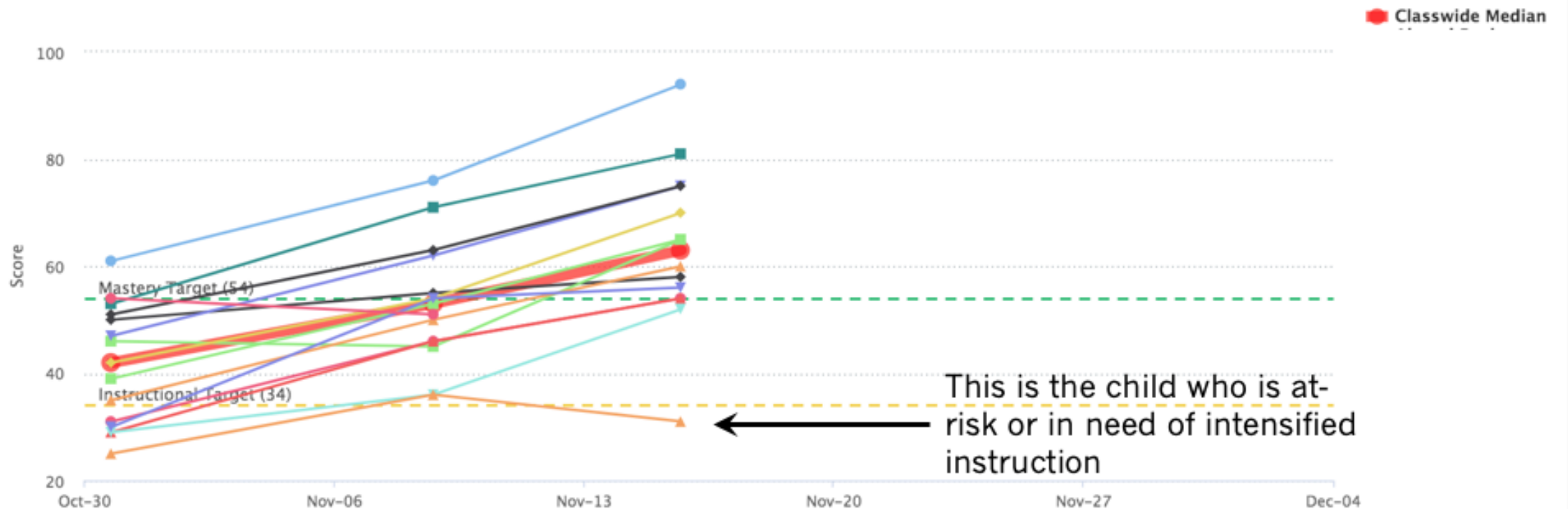
Use Classwide Intervention as Gate in Screening

Mixed Addition/Subtraction 0-20

Create Intervention Materials to View or Print

Classwide Rate of Improvement: 9.2

Create Intervention Materials



Use Classwide Intervention

Classwide Intervention

Screening

Students

Growth

Fall 2019-20 Screening Results

The results are in. Let's take a look...

Classroom Performance

4% of your class reached the target on all of the screening assessments. Extra practice will help you reach mastery at this grade level.

The classwide intervention has already been started.

8%

Measure 1

19%

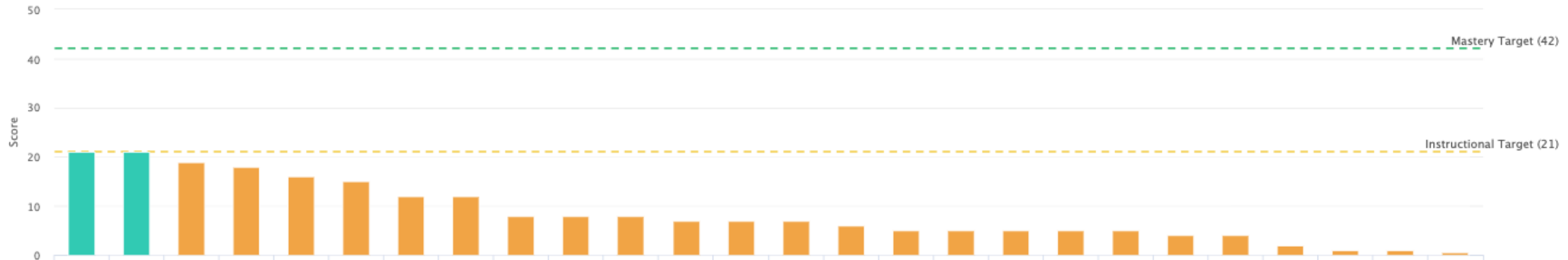
Measure 2

19%

Measure 3

Measure 1: Fact Families: Addition/Subtraction 0-20

Your students' screening scores compared to the target score.



Use Classwide Intervention

Your class is currently in class wide intervention. Complete intervention activities daily and enter progress monitoring scores weekly.

Mixed Addition/Subtraction 0-20

Create Intervention Materials to View or Print

Create Intervention Materials

Classwide Rate of Improvement: 3.8



Show Students scores

Intervention Progress

- Mixed Addition/Subtraction 0-20
- Fact Families: Add/Subtract 0-9
- Fact Families: Addition/Subtraction 0-20
- Addition 3-Digit Numbers with & without Regrouping
- Subtraction 3-Digit Number with & without Regrouping
- Add/Subtract 3-Digit Numbers with & without Regrouping
- Multiplication 0-9
- Multiplication 5-9
- Division 0-9
- Fact Families: Multiplication/Division 0-9
- Multiplication 0-12
- Division 0-12
- Fact Families: Multiplication/Division 0-12
- Multiply 1-Digit by 2-3-Digit without Regrouping

Classwide Intervention

Screening

Students

Growth



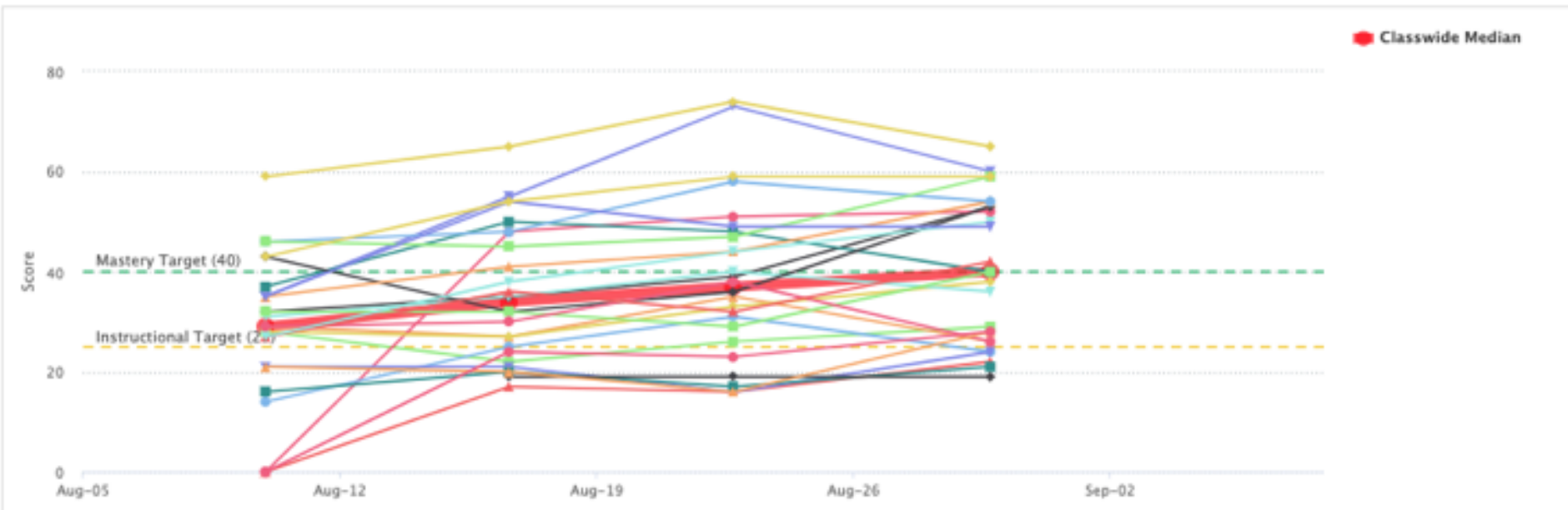
Your class is currently in class wide intervention. Complete intervention activities daily and enter progress monitoring scores weekly.

Mixed Addition/Subtraction 0-20

Create Intervention Materials to View or Print

Create Intervention Materials

Classwide Rate of Improvement: 3.8



Hide Students scores

Intervention Progress

- Mixed Addition/Subtraction 0-20
- Fact Families: Add/Subtract 0-9
- Fact Families: Addition/Subtraction 0-20
- Addition 3-Digit Numbers with & without Regrouping
- Subtraction 3-Digit Number with & without Regrouping
- Add/Subtract 3-Digit Numbers with & without Regrouping
- Multiplication 0-9
- Multiplication 5-9
- Division 0-9
- Fact Families: Multiplication/Division 0-9
- Multiplication 0-12
- Division 0-12
- Fact Families: Multiplication/Division 0-12

Use Classwide Intervention

Classwide Intervention

Screening

Students

Growth

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19%

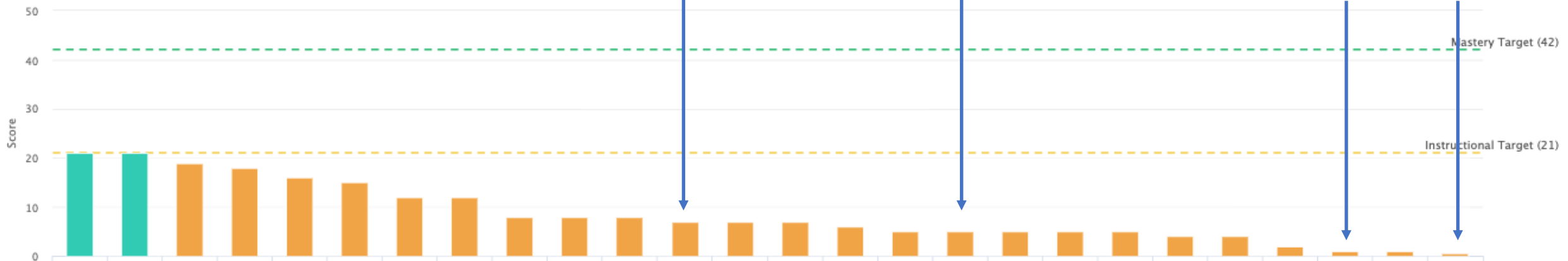
Measure 2

19%

Measure 3

Measure 1: Fact Families: Addition/Subtraction 0-20

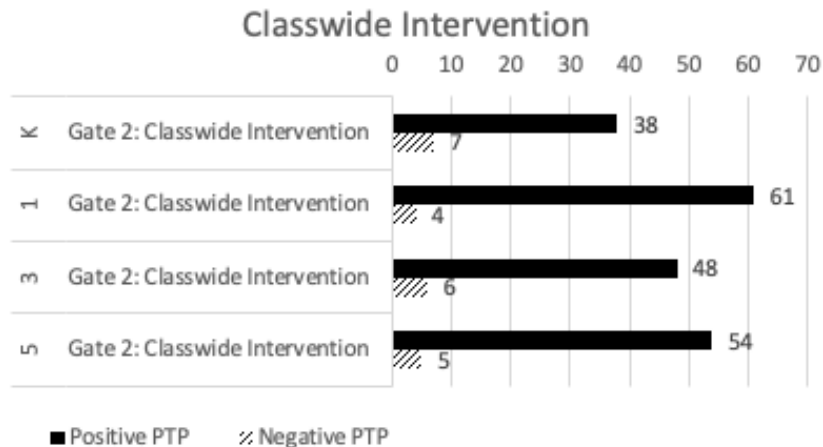
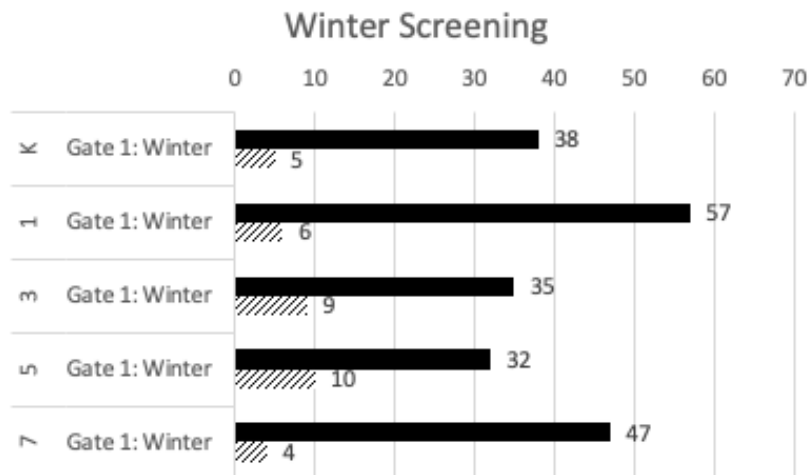
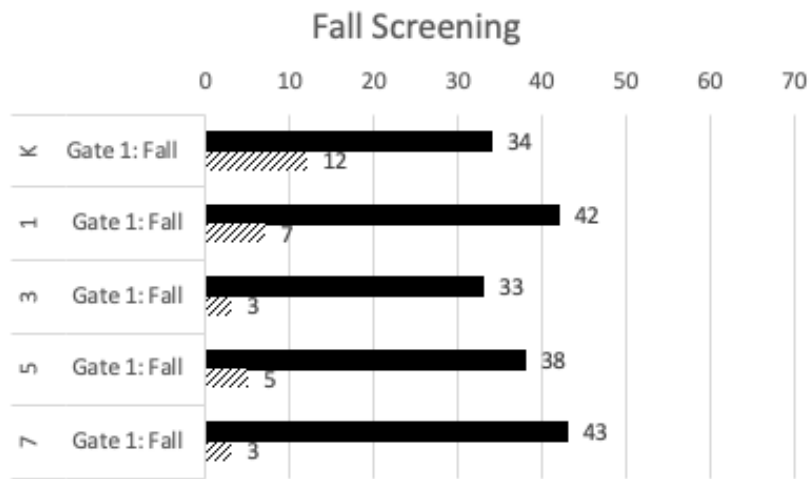
Your students' screening scores compared to the target score.



Individual Intervention Based on
Classwide Screening Data

Use Classwide Intervention

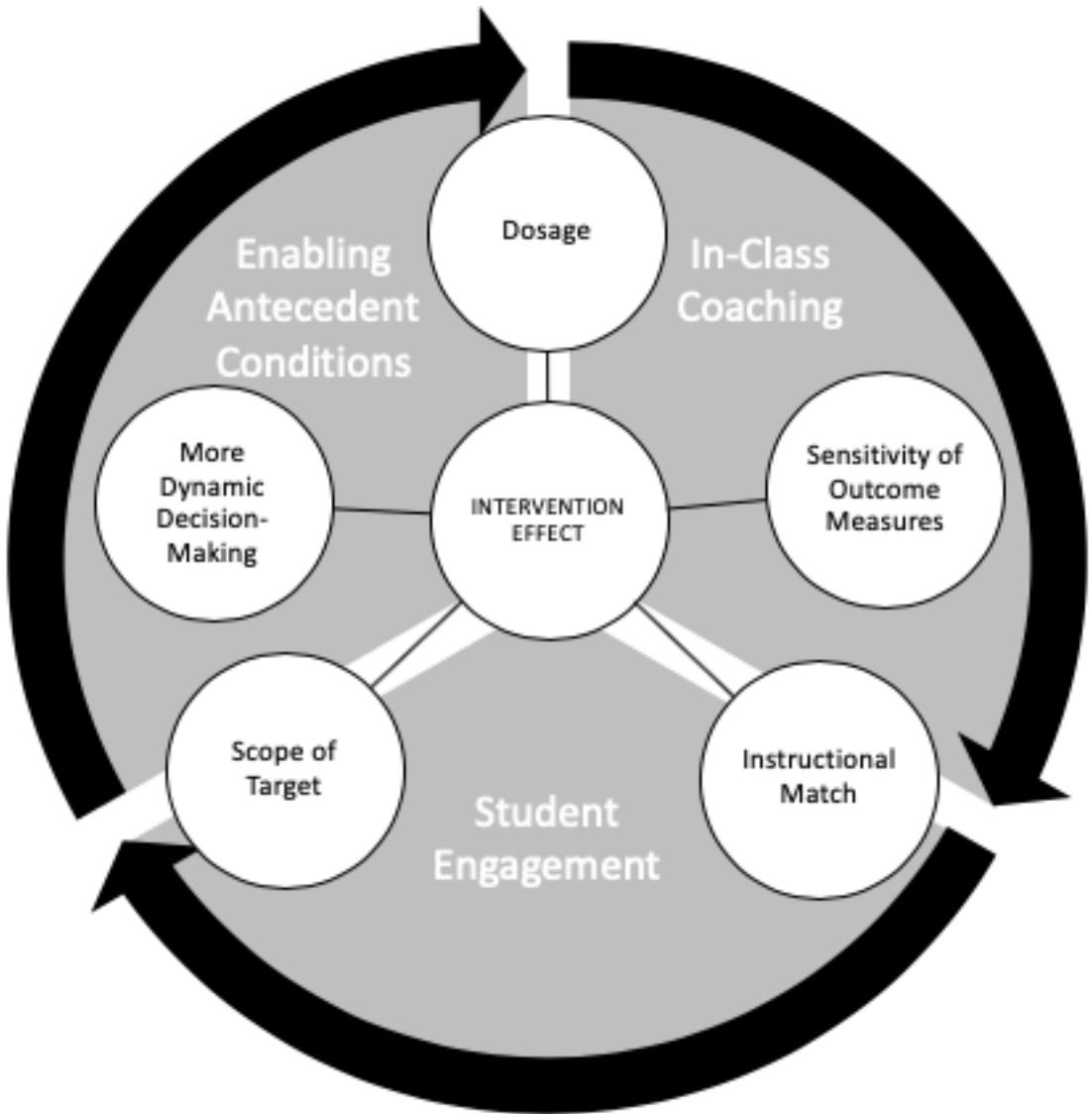
Classwide Intervention Lowers Base Rate of Risk & Improves Decision Accuracy



VanDerHeyden, Broussard, & Burns (2019). Classification Agreement for Gated Screening in Mathematics: Subskill Mastery Measurement and Classwide Intervention. Assessment for Effective Intervention.

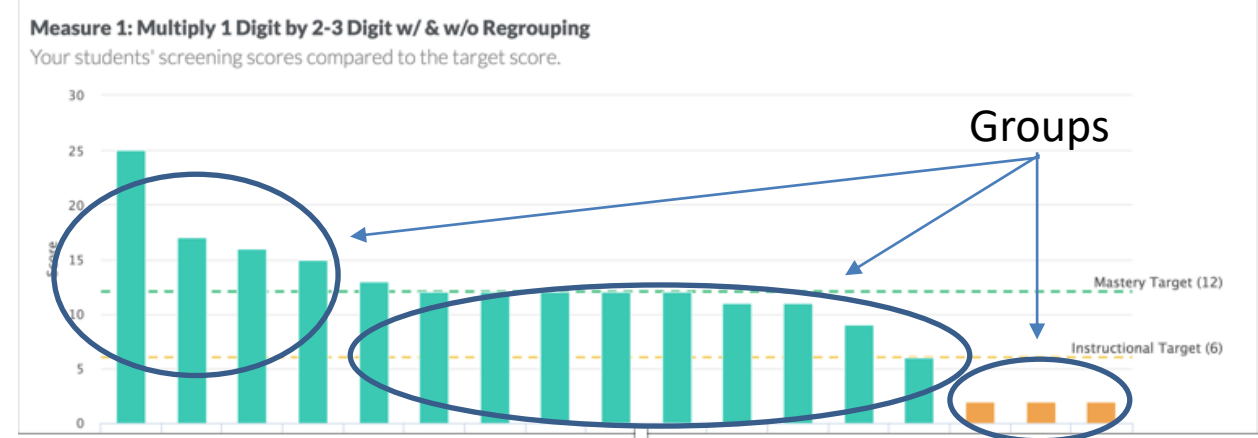
https://www.researchgate.net/publication/336702020_Classification_Agreement_for_Gated_Screening_in_Mathematics_Subskill_Mastery_Measurement_and_Classwide_Intervention

Use Classwide Intervention



Lesson 4: Use the Science of Instruction to Intensify Instruction

Differentiation is Not Enough



Differentiated

Matching protocols with small group needs.

Personalized

Delivering assessment-driven lesson content.

Individualized

Management of assessment-driven lesson content and tactical supports.

- Usually accomplished by organizing small groups
- Re-teach & enrich periods
- But, this is HARD to do.

“The results of the study indicate that the MAP program was implemented with moderate fidelity but that MAP teachers were not more likely than control group teachers to have applied differentiated instructional practices in their classes. Overall, the MAP program did not have a statistically significant impact on students’ reading achievement in either grade 4 or grade 5.” (Cordray et al., 2012)

Full report here: <https://files.eric.ed.gov/fulltext/ED537982.pdf>



Differentiated

Matching protocols with small group needs.

Personalized

Delivering assessment-driven lesson content.

Individualized

Management of assessment-driven lesson content and tactical supports.

- Usually accomplished via web-based instruction
- Popular tools include: Headsprout, Dreambox
- But the data for most are somewhat unimpressive

Individualized



Differentiated

Matching protocols with small group needs.

Personalized

Delivering assessment-driven lesson content.

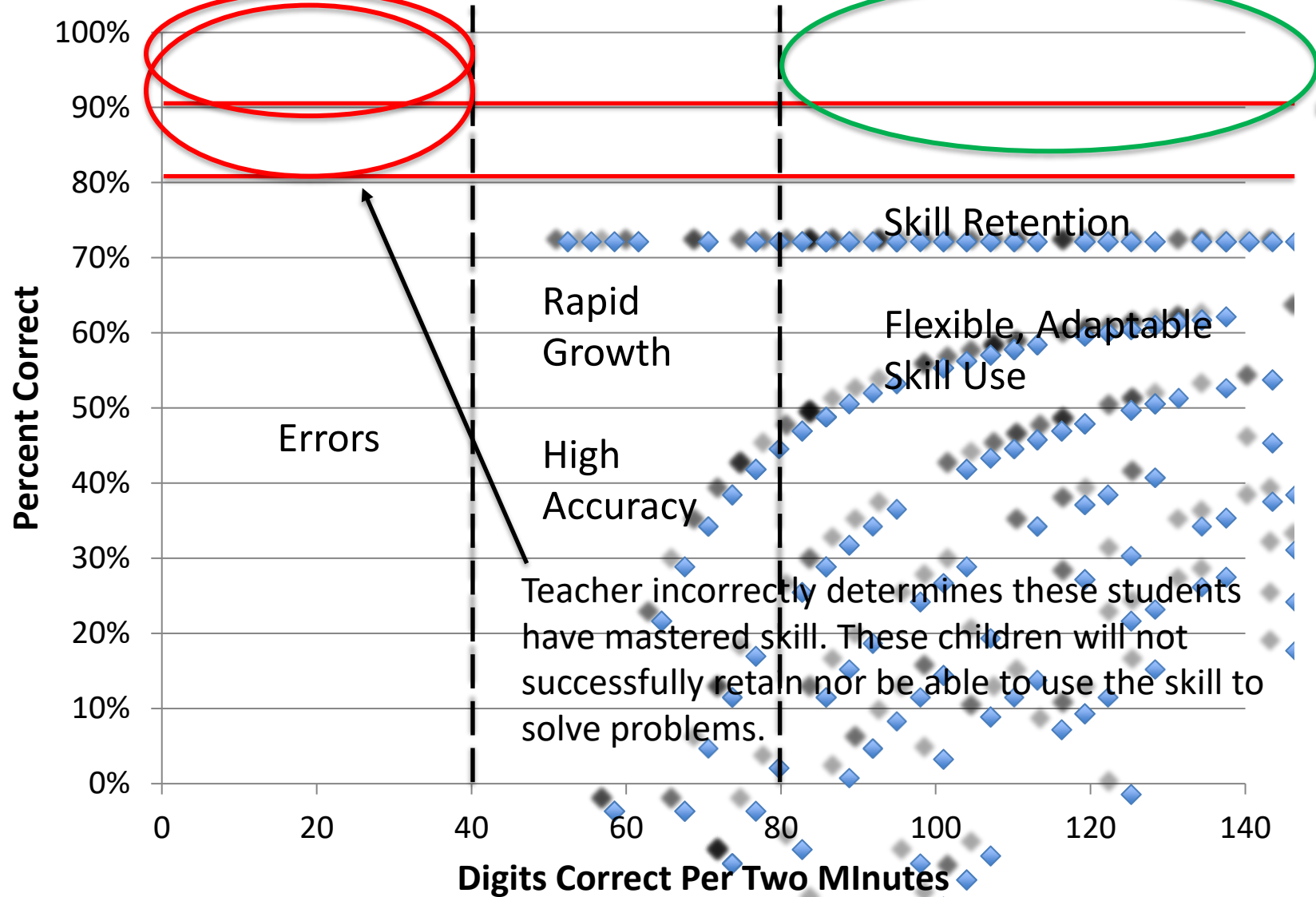
Individualized

Management of assessment-driven lesson content and tactical supports.

Differentiates and customizes instruction in the context of local learning expectations, ongoing progress monitoring, implementation management, and outcomes evaluation over time.

Fluency by Accuracy

Teachers determine mastery



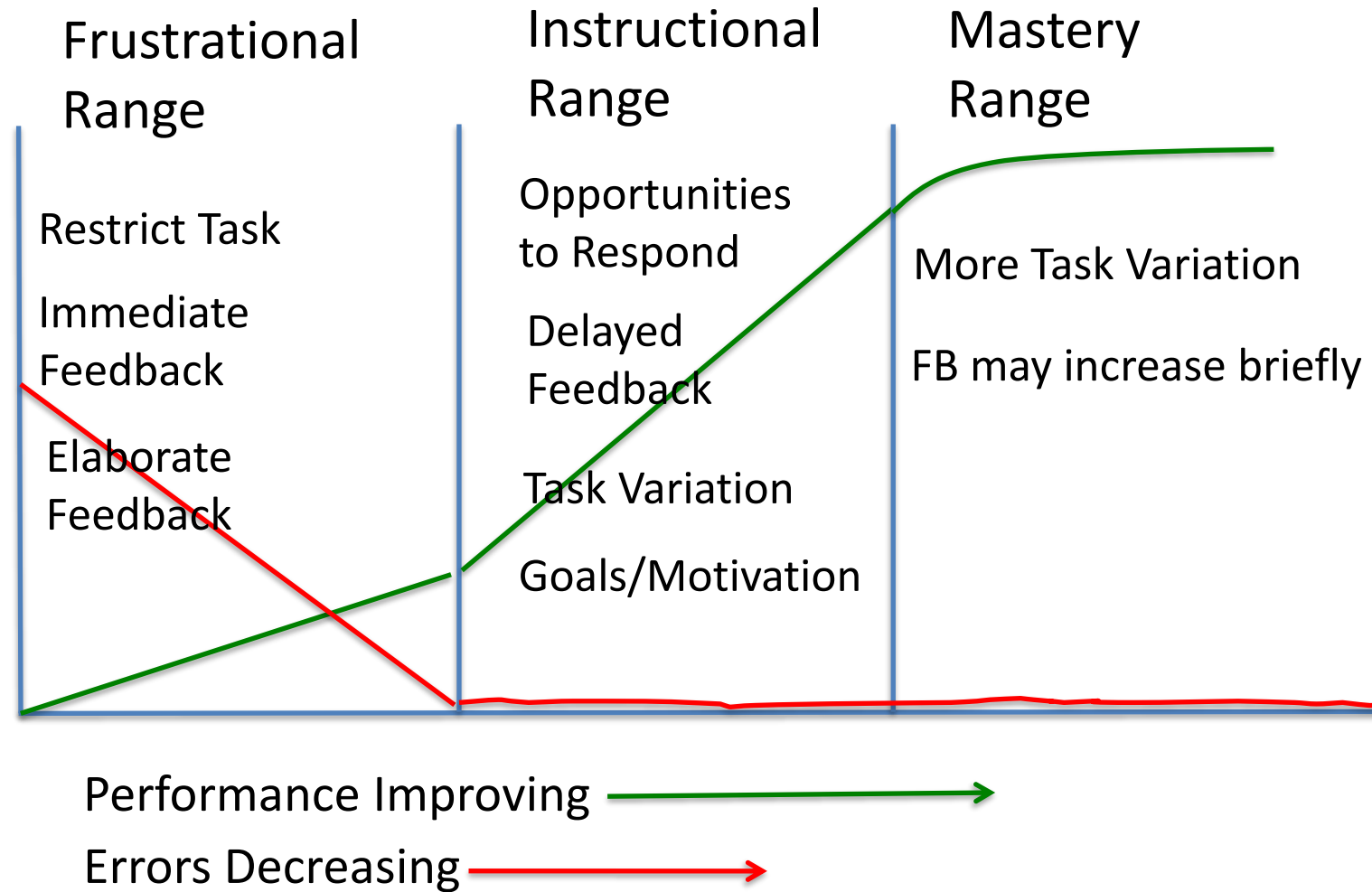
These children are ready for more challenging work & will have high probability of learning success, generalization.

Frustrational Performance

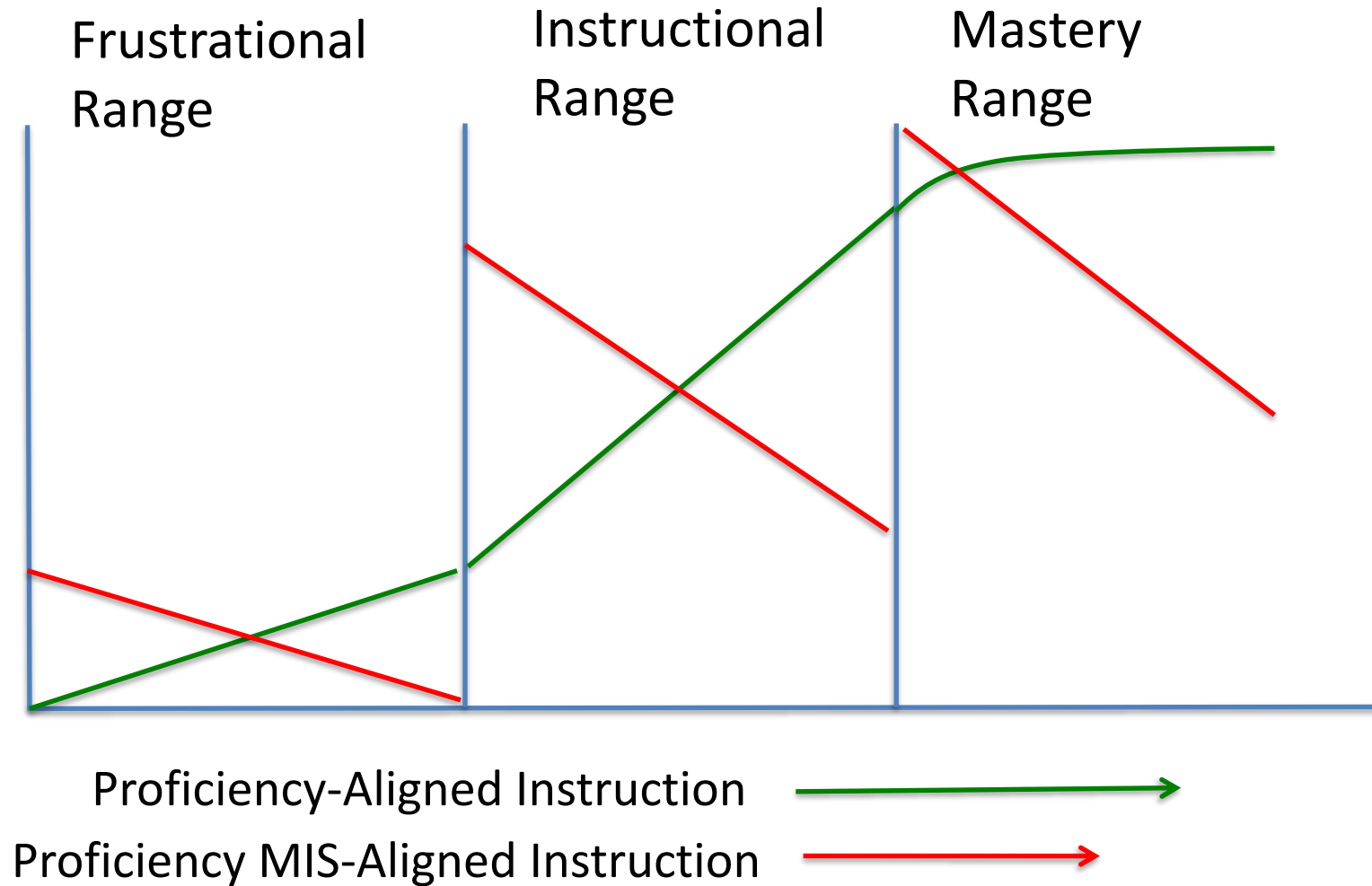
Instructional Performance

Mastery Performance

The Instructional Hierarchy: How it Works



Skill x Treatment Interaction



How to Plan Instruction Using Science

Acquisition

Child response is inaccurate: Frustrational Performance.

Goal of instruction is to build accurate understanding. Tactics should include: salient cues, frequent & high-level prompting, immediate feedback, more elaborate feedback, sufficient exemplars of correct/incorrect responses, controlled task presentation.

Fluency

Child response is accurate but slow: Instructional Performance

Goal of instruction is to build fluency (accuracy + speed). Tactics should include: intervals of practice, opportunities to respond, delayed feedback, goals & reinforcement for more fluent performance.

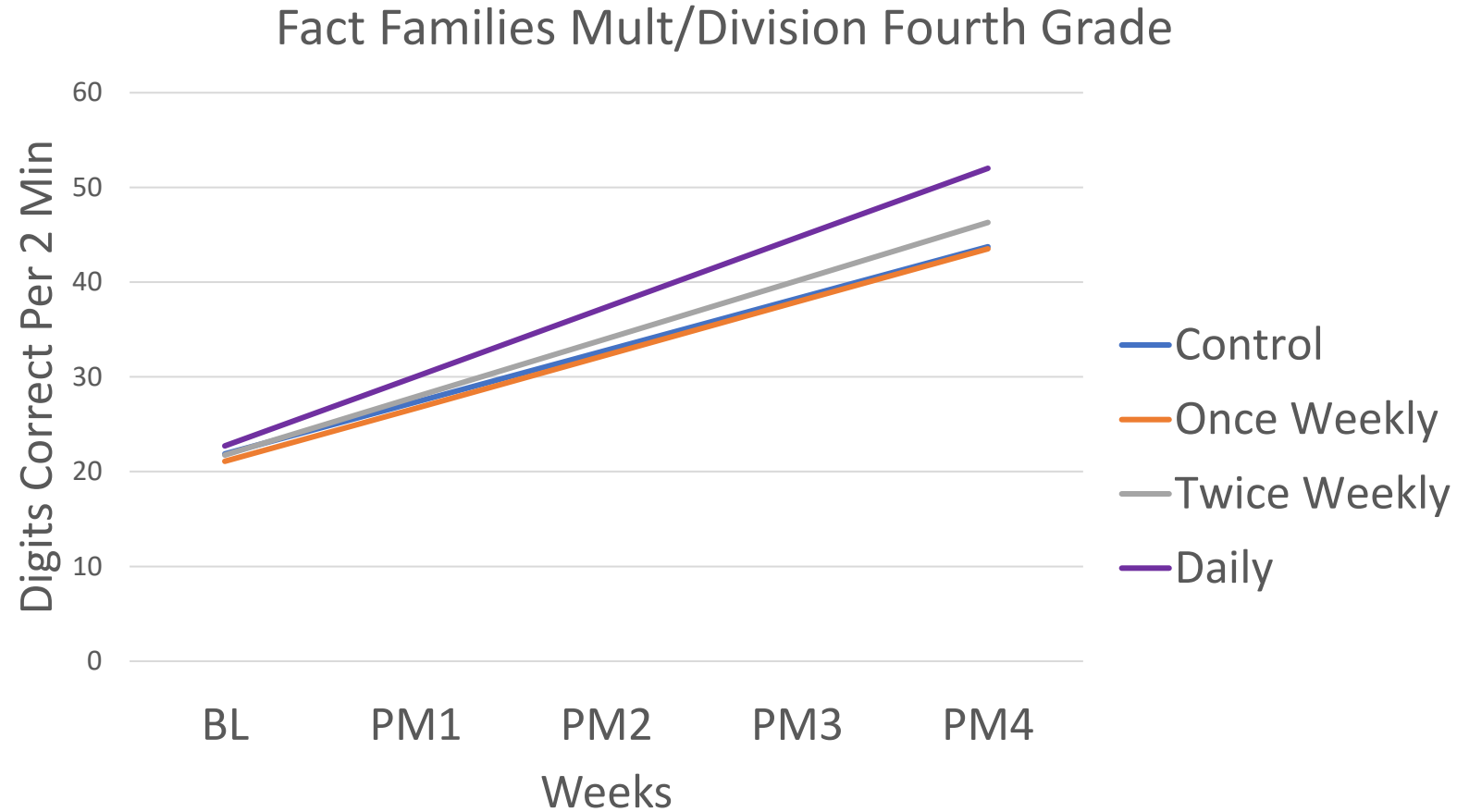
Generalization & Adaptation

Child response is fluent: Mastery Performance

Goal is to promote generalization. Tactics should include: cues to generalize, corrective feedback for application and problem-solving, systematic task variation, fading of support.

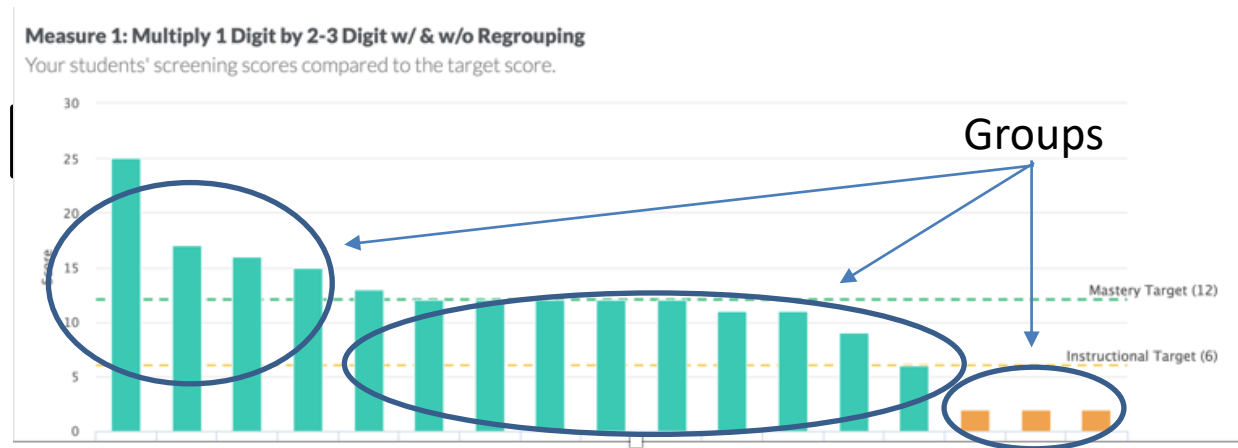
Haring, N. G., & Eaton, M. D. (1978). Systematic instructional procedures: An instructional hierarchy. In N. G. Haring, T. C. Lovitt, M. D. Eaton, & C. L. Hansen (Eds.), *The fourth R: Research in the classroom* (pp. 23–40). Columbus, OH: Merrill.

Dose What is Needed, Not What Fits Schedule



Codding, R., VanDerHeyden, Martin, R. J., & Perrault, L. (2016). Manipulating Treatment Dose: Evaluating the Frequency of a Small Group Intervention Targeting Whole Number Operations. *Learning Disabilities Research & Practice, 31*, 208-220.

Differentiation is Not Enough



Differentiated

Matching protocols with small group needs.

Personalized

Delivering assessment-driven lesson content.

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Full report here: <https://files.eric.ed.gov/fulltext/ED537982.pdf>

Align Tactic w Proficiency

For Math: Use Screening Data

Classwide Intervention

Individual Interventions

Screening

Students

Growth

Spring 2017-18 Screening Results

The results are in. Let's take a look...

Classroom Performance

6% of your class reached the target on all of the screening assessments. Extra practice will help you reach mastery at this grade level.

The classwide intervention has already been started.

82%

Measure 1

12%

Measure 2

94%

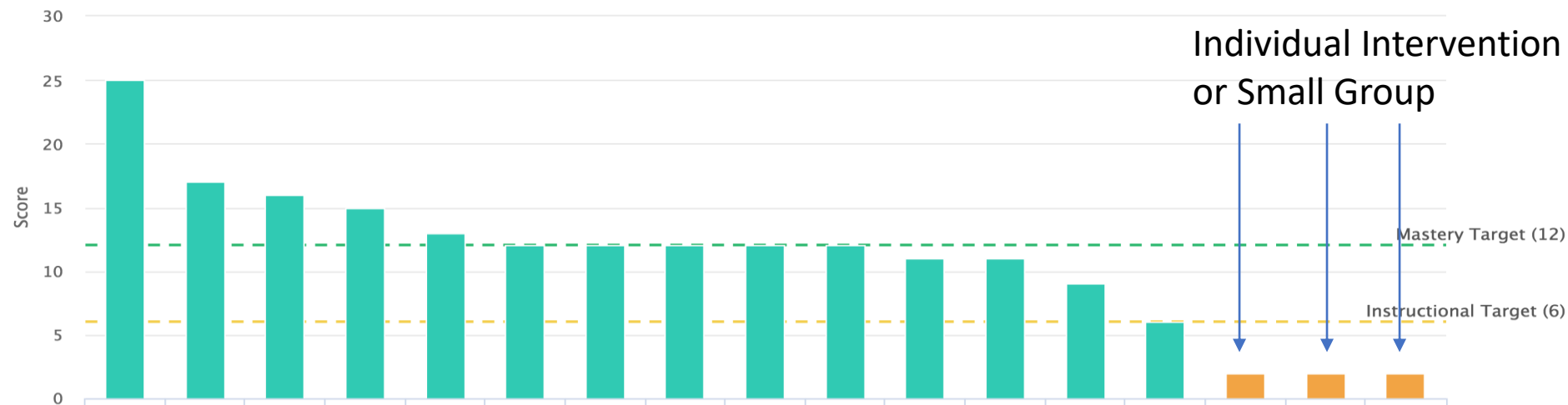
Measure 3

24%

Measure 4

Measure 1: Multiply 1 Digit by 2-3 Digit w/ & w/o Regrouping

Your students' screening scores compared to the target score.



Align Tactic w Proficiency

You will Need a Range of Interventions & Data to Connect them to the Student

Procedural & Conceptual Understanding for Middle School Math						
Fluency-Building			Acquisition			
Classwide Math Intervention	Timed Trial	Response Cards	Cover Copy Compare	Guided Practice	Incremental Rehearsal	Bingo

Tier 2 Take-Aways

- Group size can vary (larger groups not associated with weakened efficacy)
- Groupings must be flexible (they should change based on learner growth & need— in math this means every 1-2 weeks)
- Sessions can be brief, but more frequent is better (dosage).
- Students can work in pairs (like a mini-classwide intervention) to maximize opps to respond & feedback
- Can be used for Acquisition and Fluency-Building interventions

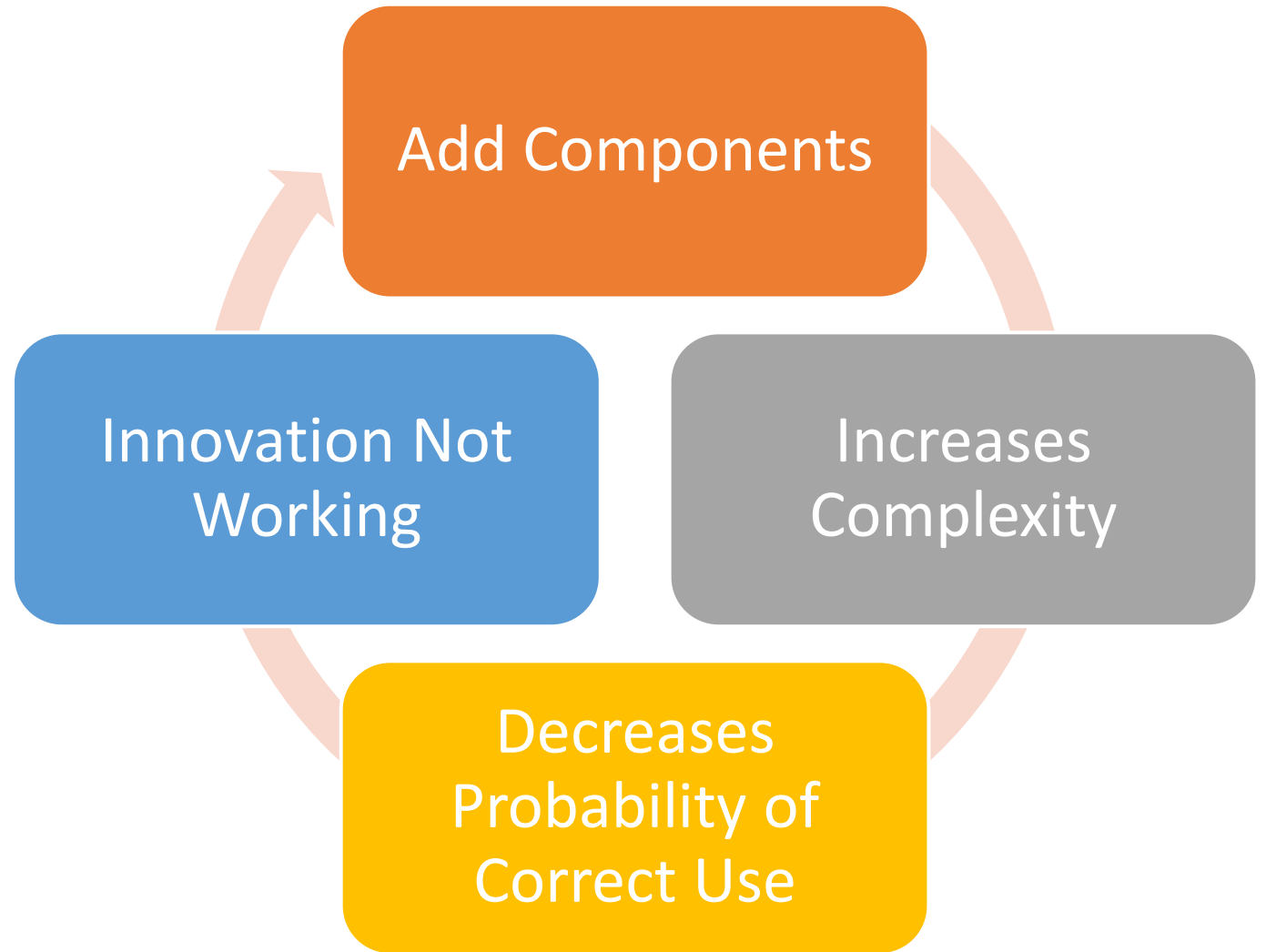
Websites

- www.intensiveintervention.org/chart/instructional-intervention-tools
- www.ebi.Missouri.edu
- www.springmath.com
- <http://www.cehd.umn.edu/reading/PRESS/about.html>



Lesson 5: Manage Intervention

Don't Do This



What are the Consequences of our Actions?

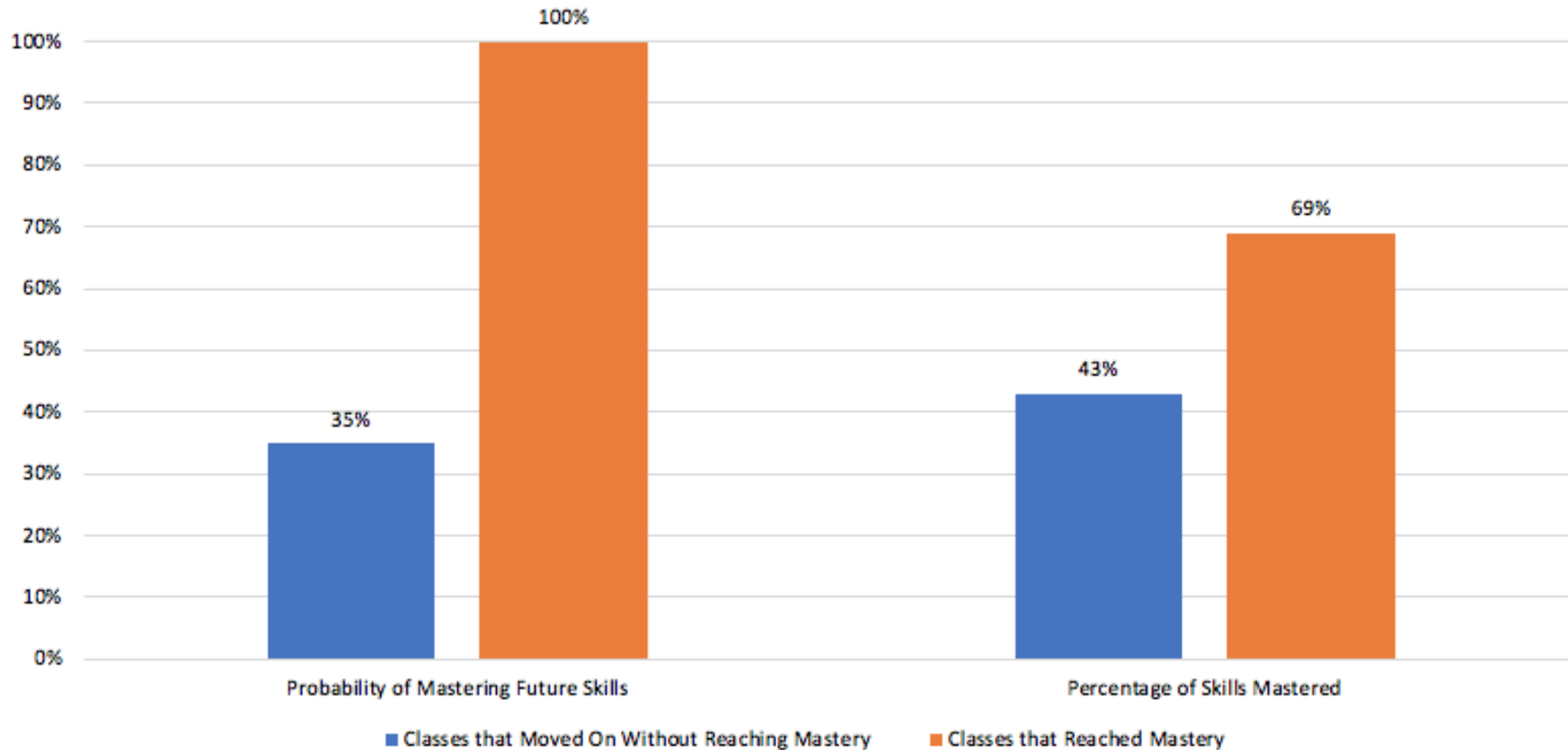
- Is risk going down?
- Who is vulnerable (still)?
- Are vulnerable students growing/catching up?



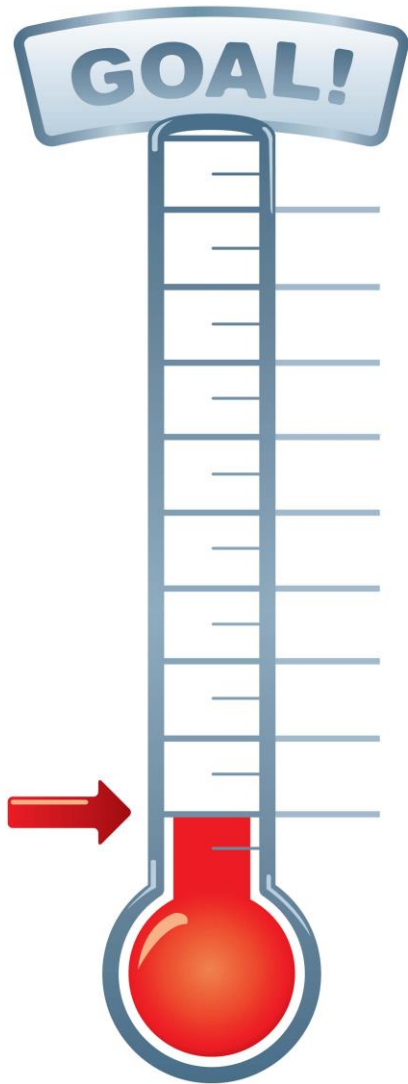
Even Veteran Districts will Drift

My students can't meet the mastery criterion,
can't we just move on?

Importance of Reaching Mastery for Each Skill During Classwide Intervention



Antecedent Supports



- Minimize Steps
- Minimize Adults
- Make Easy to Use
- In-Class Training
- Acceptable to Teacher



- Intervention Use (quality, consistency)
- Child Response



- ?

With Consequent Supports



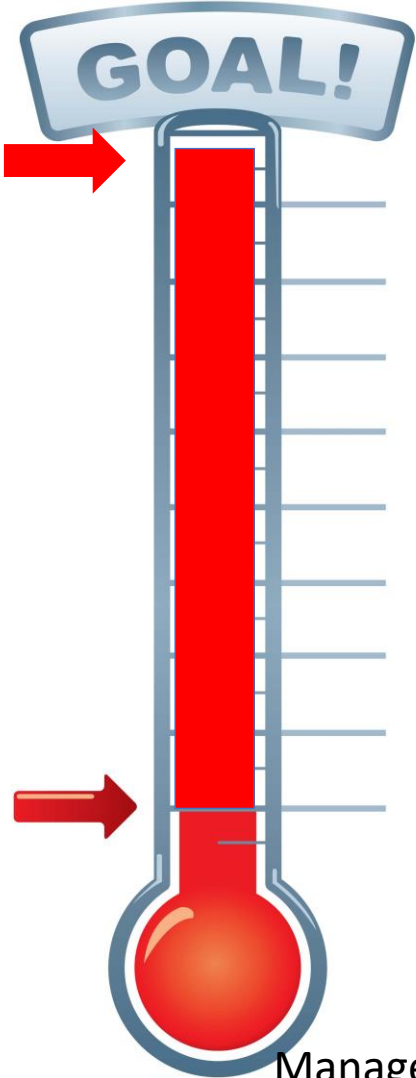
- Minimize Steps
- Minimize Adults
- Make Easy to Use
- In-Class Training
- Acceptable to Teacher



- Intervention Use (quality, consistency)
- Child Response



- Performance Feedback
 - Graphed
 - Tied to child improvement
 - Weekly





Teacher Skill & Capacity

Environmental Support/Competing Demands



Implementation



Manage Intervention

Use your Analytical Know-How

Barriers/Punishers for Implementation	Rewards for Implementation
Lack of skill	Child learning gains
Lack of materials	Positive appreciation from admin
Lack of time to implement	Recognition among peers
Lack of follow-up or progress monitoring (no knowledge if working)	Positive appreciation from family
Complex and resource intensive	Change of role or opportunities for new work

↑
Minimize, remove, attenuate

↑
Facilitate immediacy, frequency, quality. Make less predictable.

Use Implementation Science



Plan to be present when intervention is started.



Track intervention effects weekly.



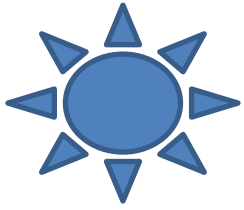
When growth is weak, check-in with teacher by watching intervention being implemented.



Help troubleshoot any barriers and say that you will check in again next week.



Wash, Rinse, Repeat.



Signs of an Effective Intervention

- Scores available for each week.
- Median increases each week within instructional groupings.
- Most students grow week over week.
- Very few students remain in the frustrational range.
- Few students require more intensive intervention.

Activity: NCII DBI Implementation Rubric

<https://intensiveintervention.org/resource/dbi-implementation-rubric-and-interview>

This is a High-Integrity Intervention

[← Back to All Students](#)

Second Gr AM Attendance (- [redacted] -)

2nd Grade

62% Weeks with Scores

4.3 Avg Weeks per Skill

🔔 It's time to start Winter screening!

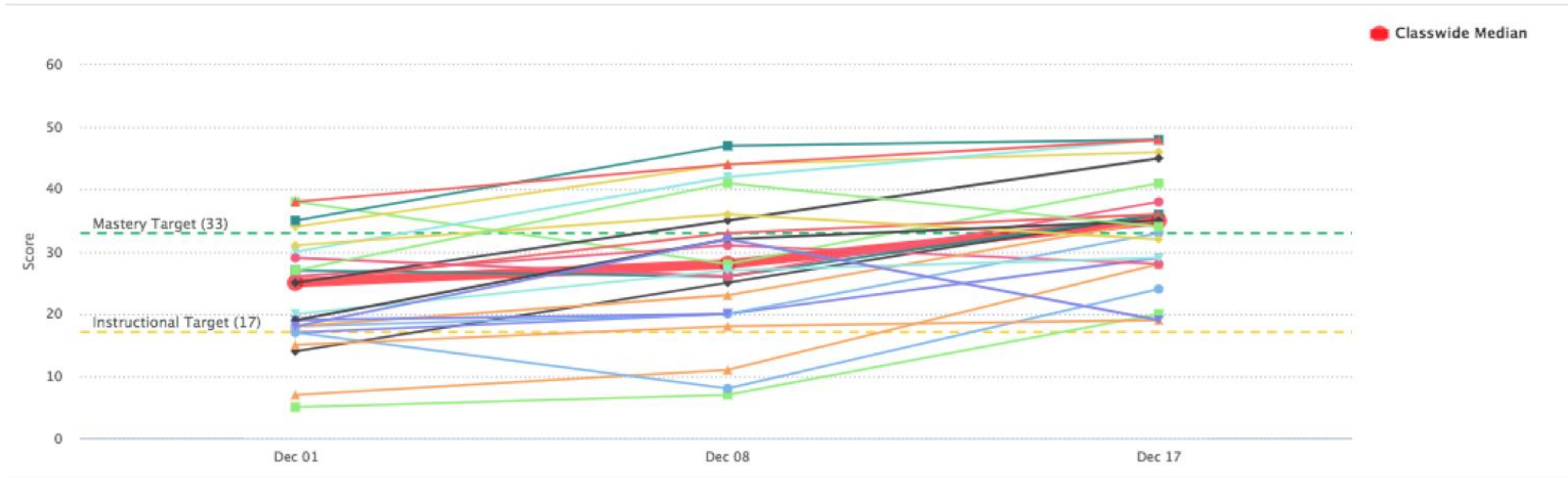
St

Classwide Intervention Progress

Subtraction 0-20

Classwide Rate of Improvement: 4.5

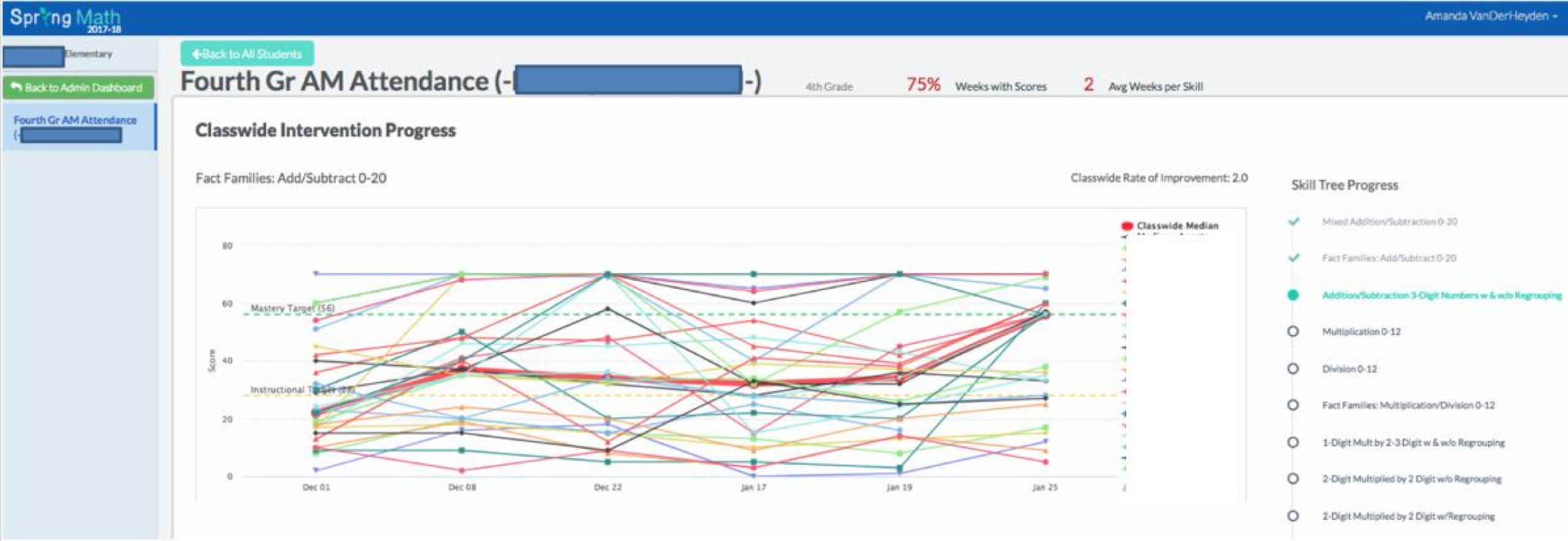
Skill Tree Progress



- ✓ Sums to 20
- ✓ Subtraction 0-9
- ✓ Subtraction 0-12
- ✓ Subtraction 0-15
- ✓ Subtraction 0-20
- Quantity Compare for Sums & Differences to 20
- Fact Families: Add/Subtract 0-20
- Add 2-Digit w/o Regrouping
- Add 2-Digit with Regrouping

Manage Intervention

This Growth Indicates a Problem



Classwide Intervention Progress

Sums to 6

Classwide Rate of Improvement: 1.8



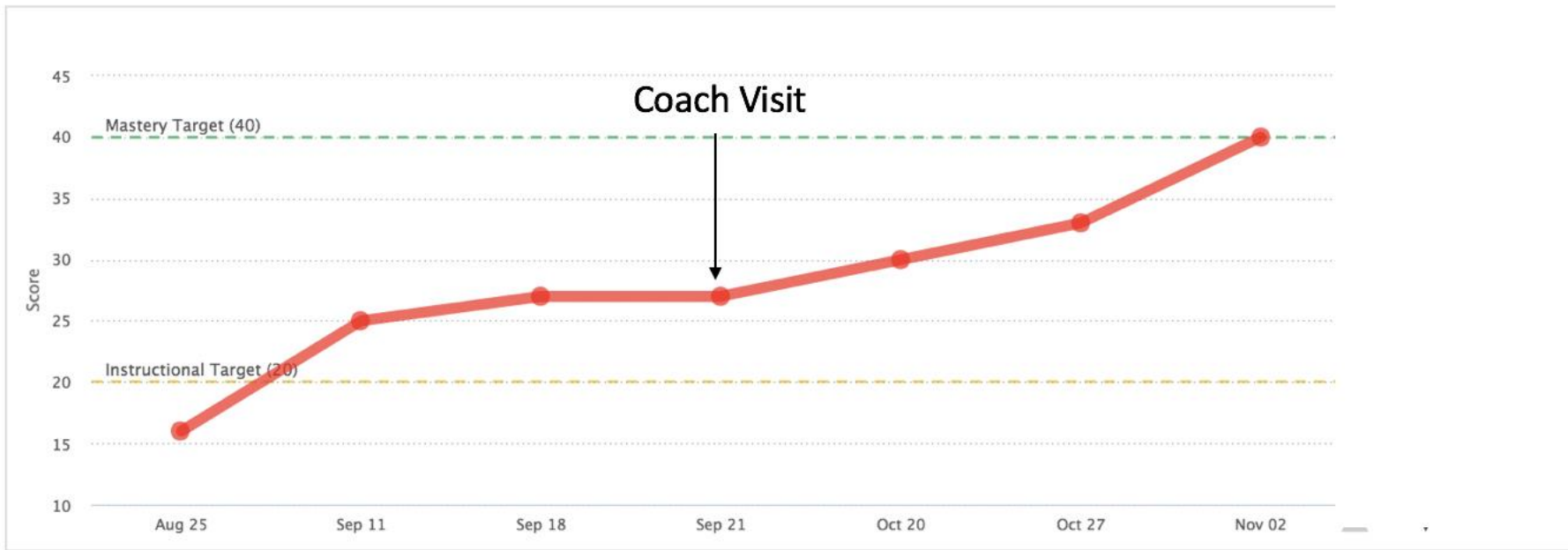
Skill Tree Progress

- ✓ Sums to 6
- ✓ Sums to 12
- ✓ Subtraction 0-5
- ✓ Sums to 20
- ✓ Subtraction 0-9
- Fact Families: Add/Subtract 0-9
- Subtraction 0-12
- Subtraction 0-15
- Subtraction 0-20

Classwide Intervention Progress

Sums to 6

Classwide Rate of Improvement: 1.8



Skill Tree Progress

- ✓ Sums to 6
- ✓ Sums to 12
- ✓ Subtraction 0-5
- ✓ Sums to 20
- ✓ Subtraction 0-9
- Fact Families: Add/Subtract 0-9
- Subtraction 0-12
- Subtraction 0-15
- Subtraction 0-20

Not doing the intervention.

Make intervention use fail-proof: Make sure you have materials. Make sure you know HOW to implement. Make sure there is a scheduled time for intervention.

Students do not know how to follow the classwide intervention routine.

Re-train the students. Show the students how to get into working pairs, how to use the materials, how to provide high-quality feedback, and how to be engaged.

Teacher is not completing all steps of the intervention.

Review missed steps and understand rationale. Papers must be scored during the intervention because that provides feedback to the student, provides the error correction opportunity, and provides goal attainment opportunity. The error correction component is important because it improves student accuracy for the next session.

Children seem bored with the intervention.

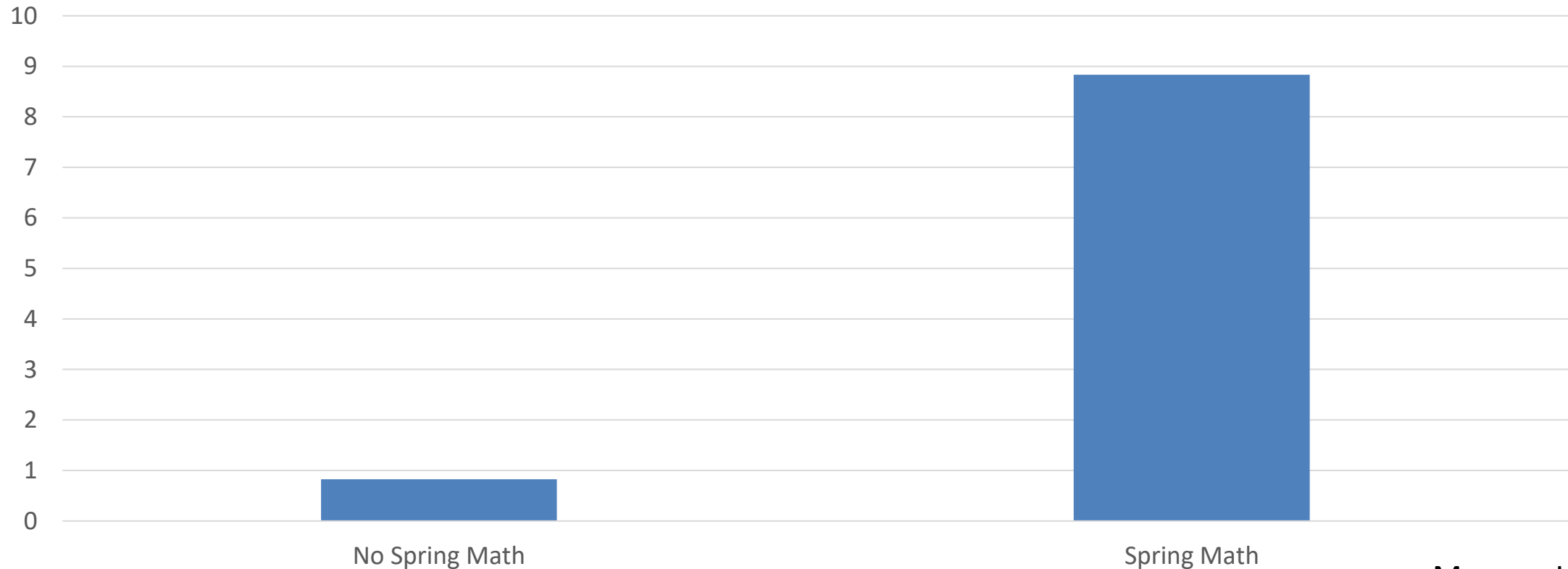
Include rewards to motivate students. Display the median graph on dashboard for the class to see their growth. Be sure to set daily goals with the students!

Most Typical Intervention “Fixes”

- ✓ Watch the intervention session.
- ✓ Pay attention to dosage.
- ✓ Tighten up rewards.
- ✓ Make sure error correction occurs with high quality everyday.
- ✓ If students are making errors, use pre-teach protocol in support.
- ✓ Integrate review of prerequisite skills and current skills into games and practice opportunities during the school day.
- ✓ Know that some skills take TIME!

If You Move the Baby Indicators, You will Move the Big Indicators. It's really not rocket science.

Mean Change in ROI Across Grades on Year-End Accountability Measure



Manage Intervention



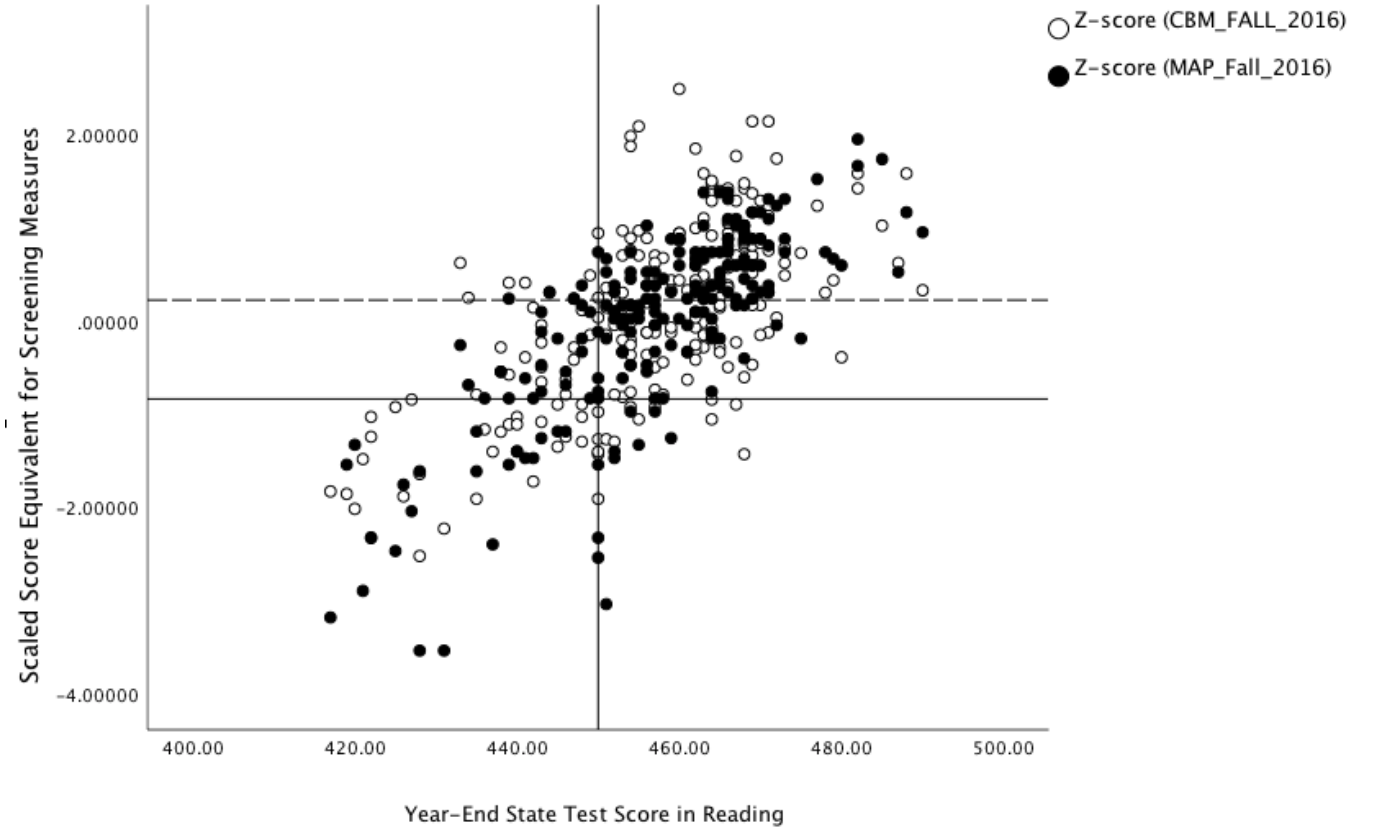
Lesson 6: Assess More Efficiently

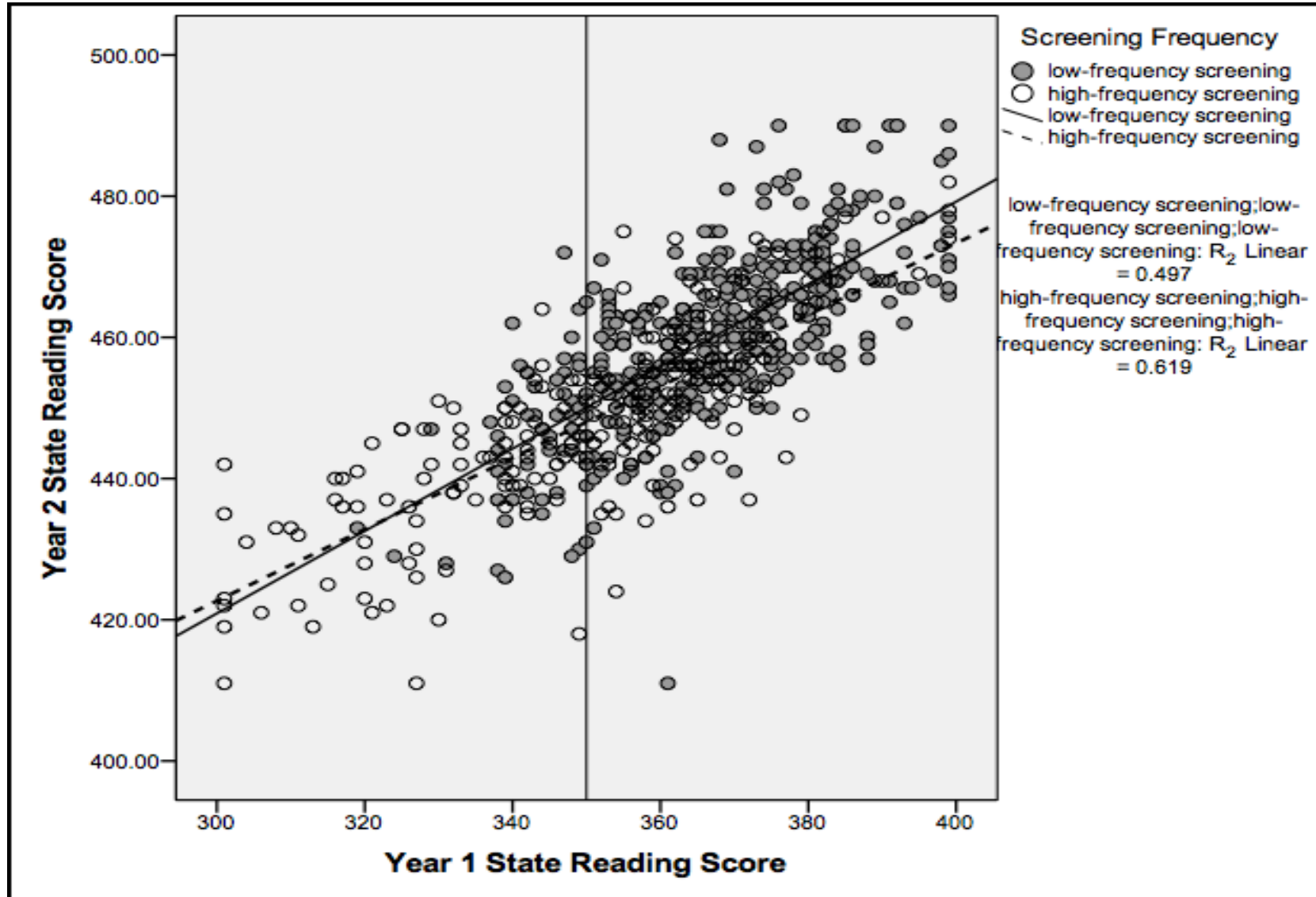


More Assessment Does Not Make You More Accurate.

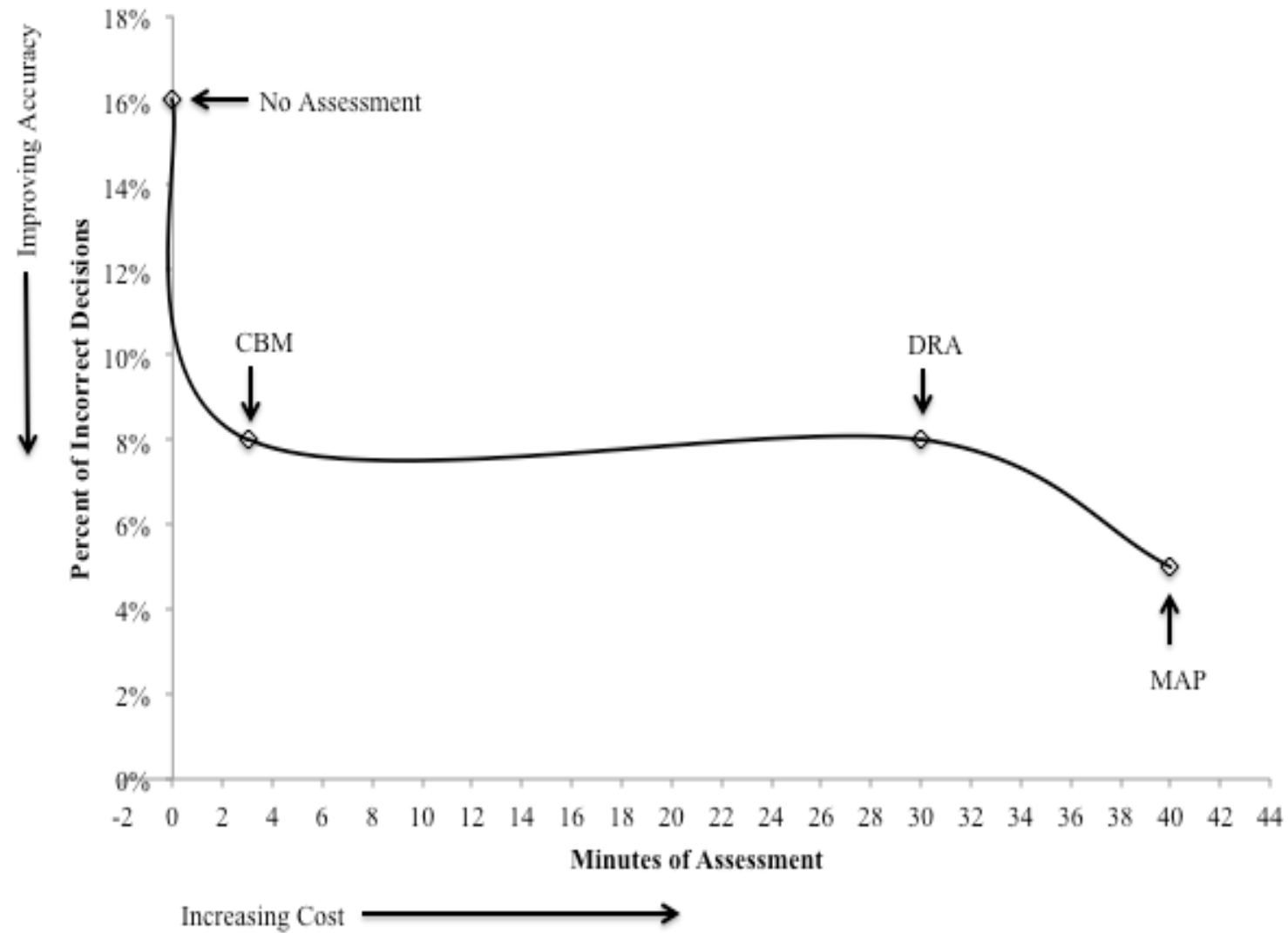
It Has Been Associated with Decreased Performance for All but the Most At-Risk Students.

Concurrent
Correlated
Measures Do Not
Increase Accuracy
of Risk Decision





Decision Error Reductions by Assessment Time



Assess Efficiently



Lesson 7: Lead more efficiently/effectively (Learner Objective 3)

Your Role as a Coordinator of Actions

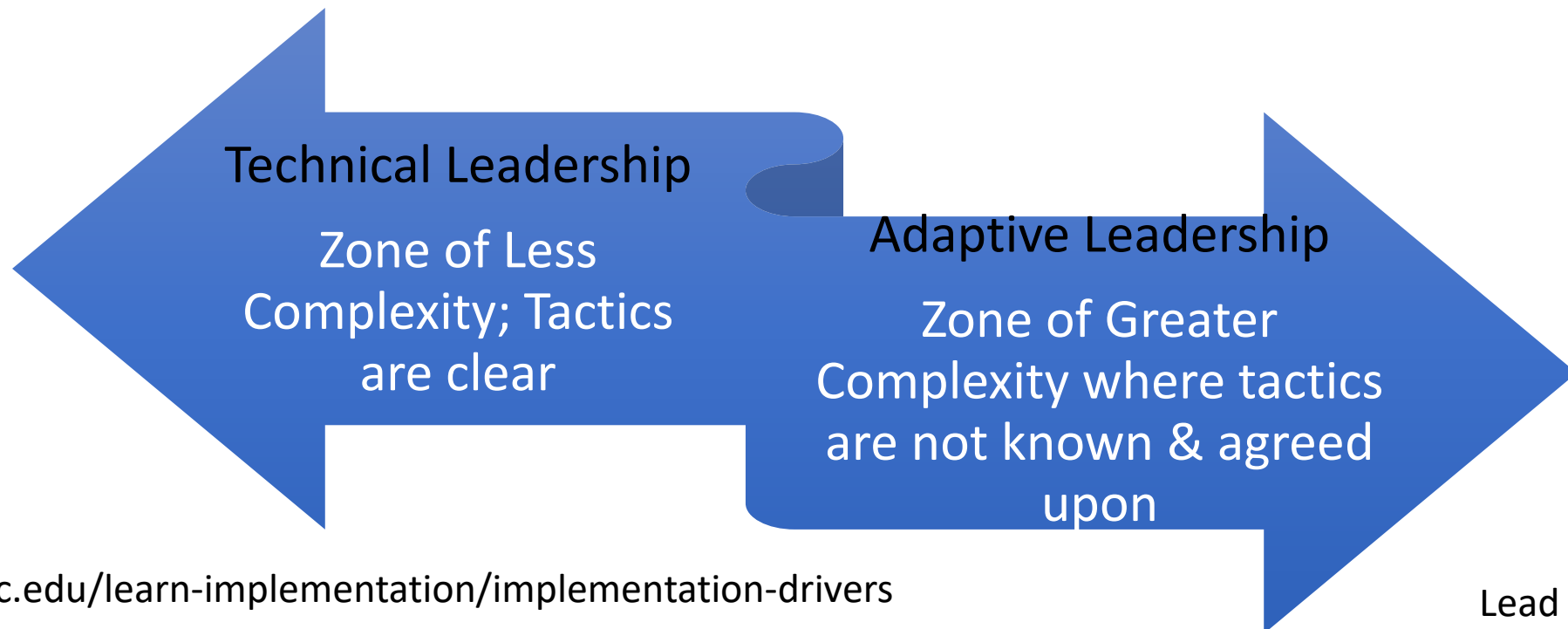
- The most expensive care, is not always the best care.
- Gawande – we need more performance management due to the complexity of our work
 1. Study the failures
 2. Checklist of key actions/ “pause points”
 3. Implementation



Your Role as an Adaptive Leader:

Technical Leaders v. Adaptive Leaders

- Technical leaders are good managers. They are:
 - Engaged
 - Quick to recognize and respond to issues that arise
 - Organize groups to solve problems
 - Regularly produce desired results



Change Requires Adaptive Leaders

“When systems undergo change, the natural tendency of those in the system is to look to those in authority to minimize the tension of change and regain stability. However, when change is the goal, formal authority can get in the way of leadership because it is designed to maintain systems, not to help people overcome their natural tendencies to maintain the status quo. When organizations and systems are being changed on purpose, adaptive leadership is needed to manage the change process.”
(National Implementation Research Network).

OLDER SIBLINGS



CREATING TRUST ISSUES SINCE FOREVER

Adaptive Leaders Build Trust AND

- Is believing that the other person will
 - acknowledge me,
 - not take advantage of me,
 - not embarrass or humiliate me,
 - tell me the truth,
 - not cheat me, but rather work on my behalf and support the goals we have agreed to.

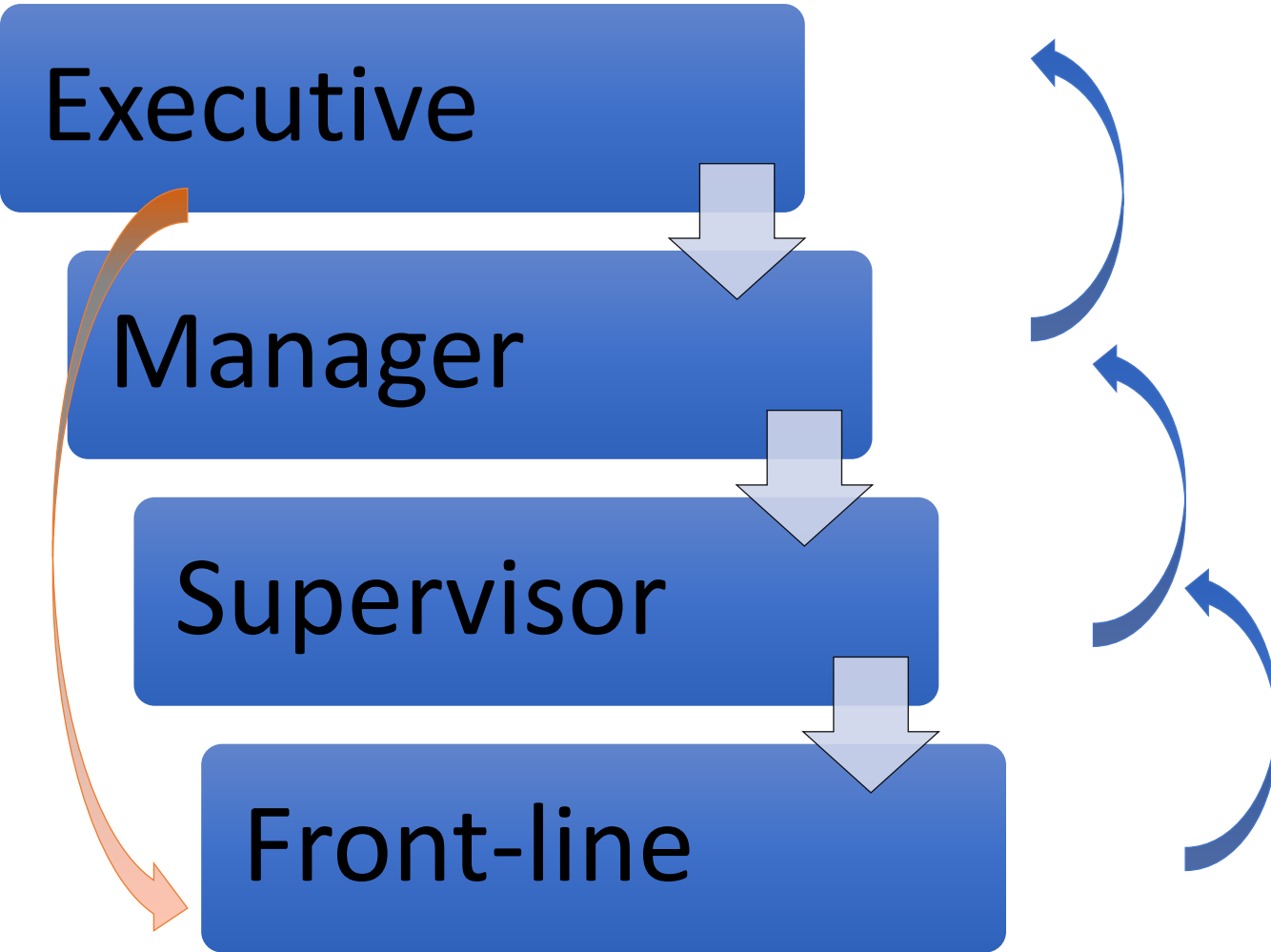
- Edgar Schein, *Humble Inquiry*

Have the Skill to Deliver Results

“... trustworthiness goes beyond integrity to include real competence. You have to be true to your word, **but also very good at what you do.**”

Fullan

Your Role in Setting Priorities: Traditional Accountability v. Reverse Behavioral Engineering



Your Role in the Feedback Loop: Don't Do This

Paralysis by Analysis

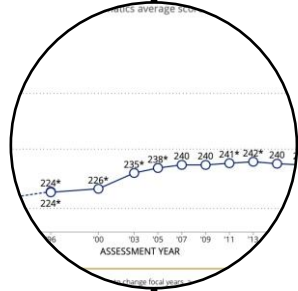


Low-Yield Tactics

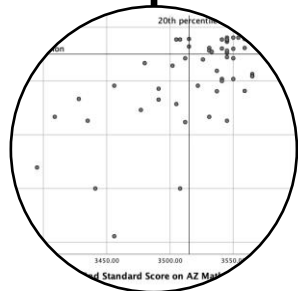
Instead, Do This



Strategic Vision



Data Sources



Needs

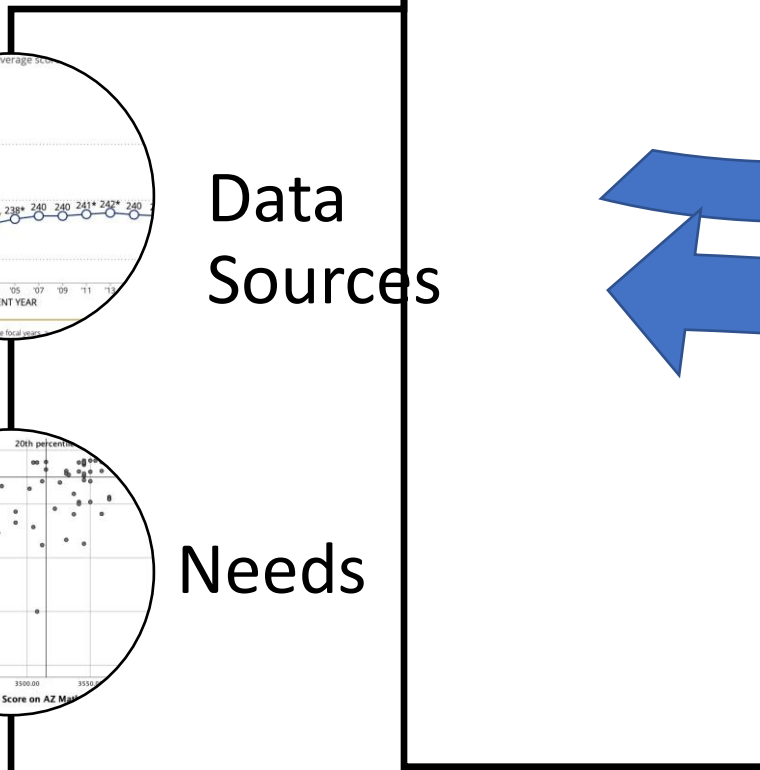
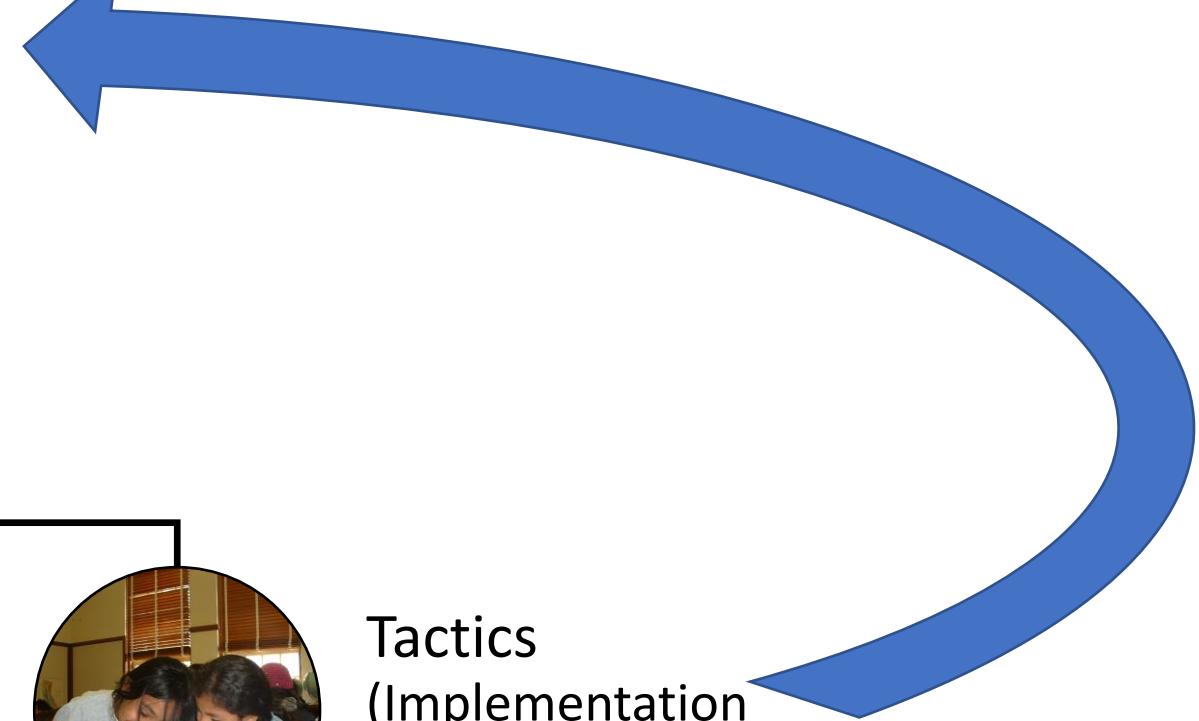
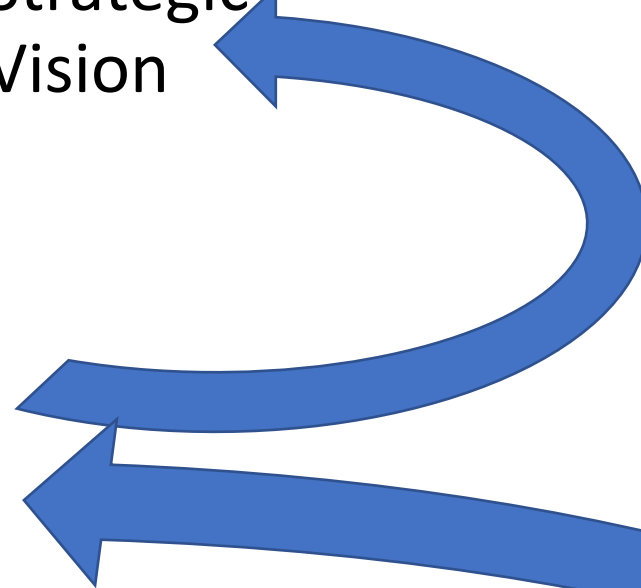
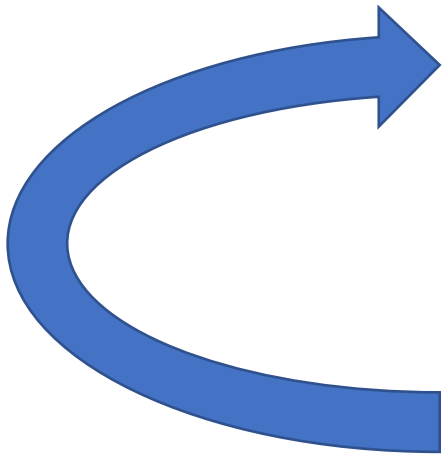


Costs/Benefits



Tactics
(Implementation Management)

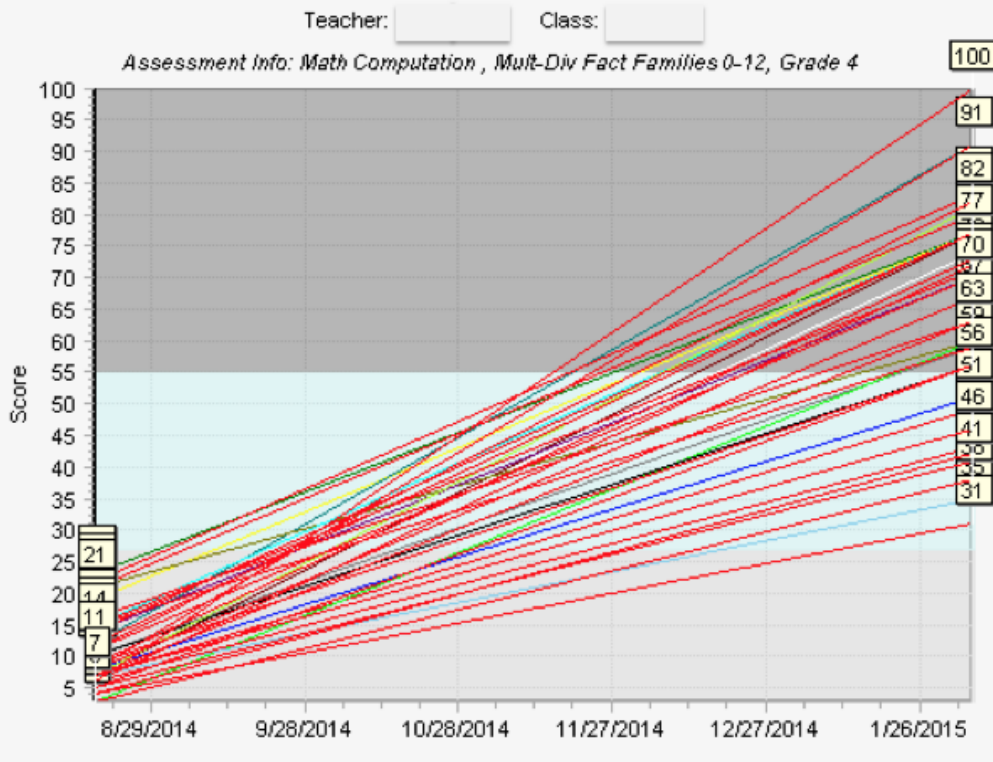
Lead More Effectively



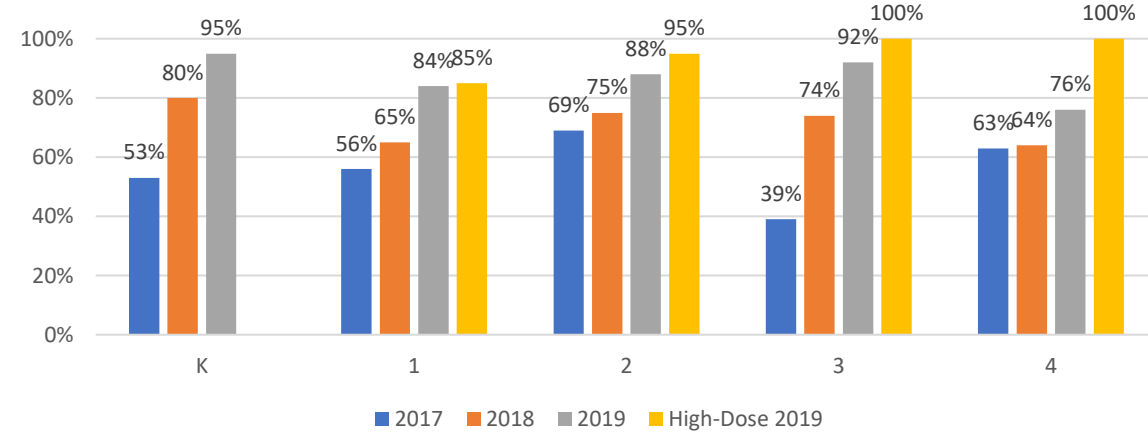
Report to Leaders

- Dose, Growth on Proximal, Growth on Distal

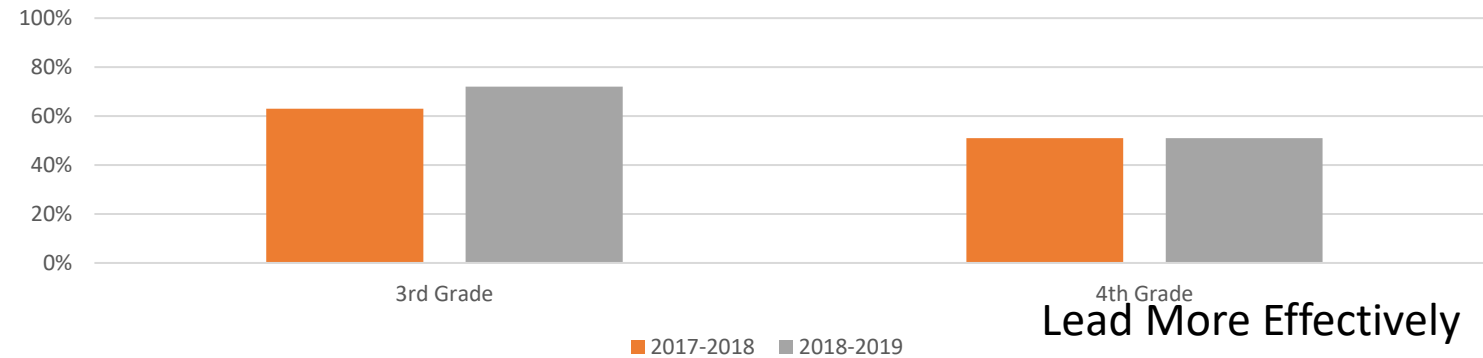
	Percentage of Skills Mastered (2017-2018)	Percentage of Skills Mastered (2018-2019)
Kindergarten	58%	100%
1st Grade	60%	80%
2nd Grade	62%	88%
3rd Grade	35%	68%
4th Grade	22%	49%



Percent Proficient on Winter DIBELS Composite by Grade & Year

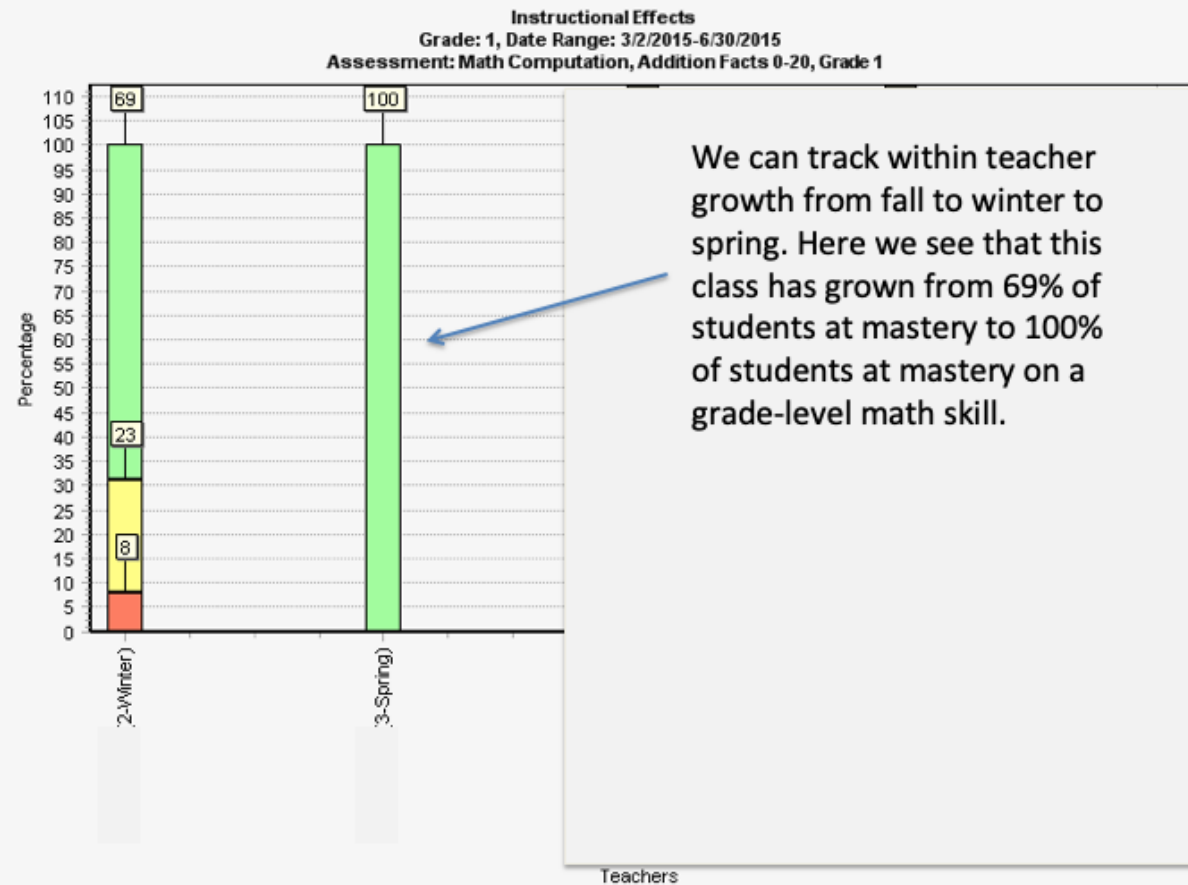


Percent Proficient on PSSA (State Year-End Test) for Grades 3 and 4

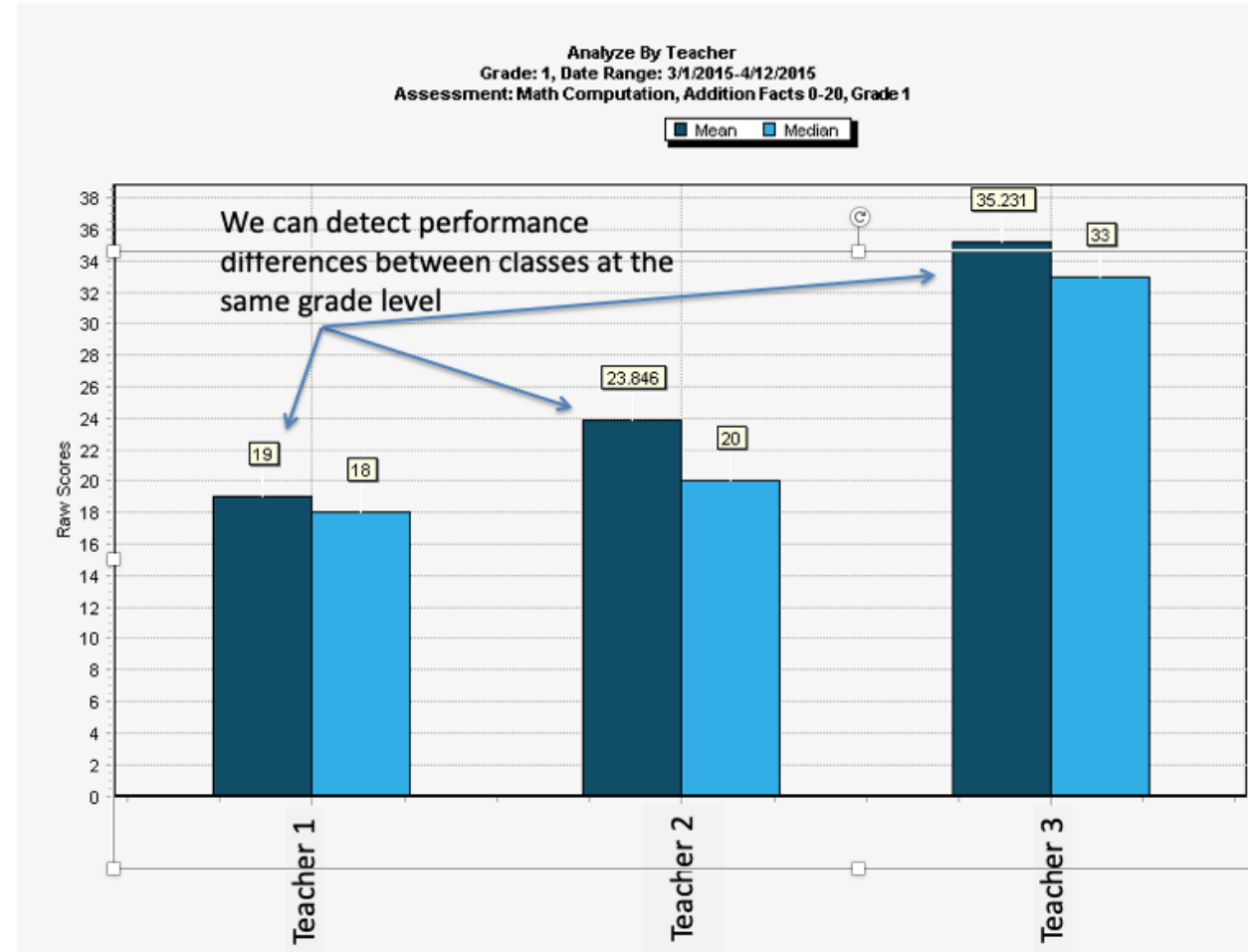


Lead More Effectively

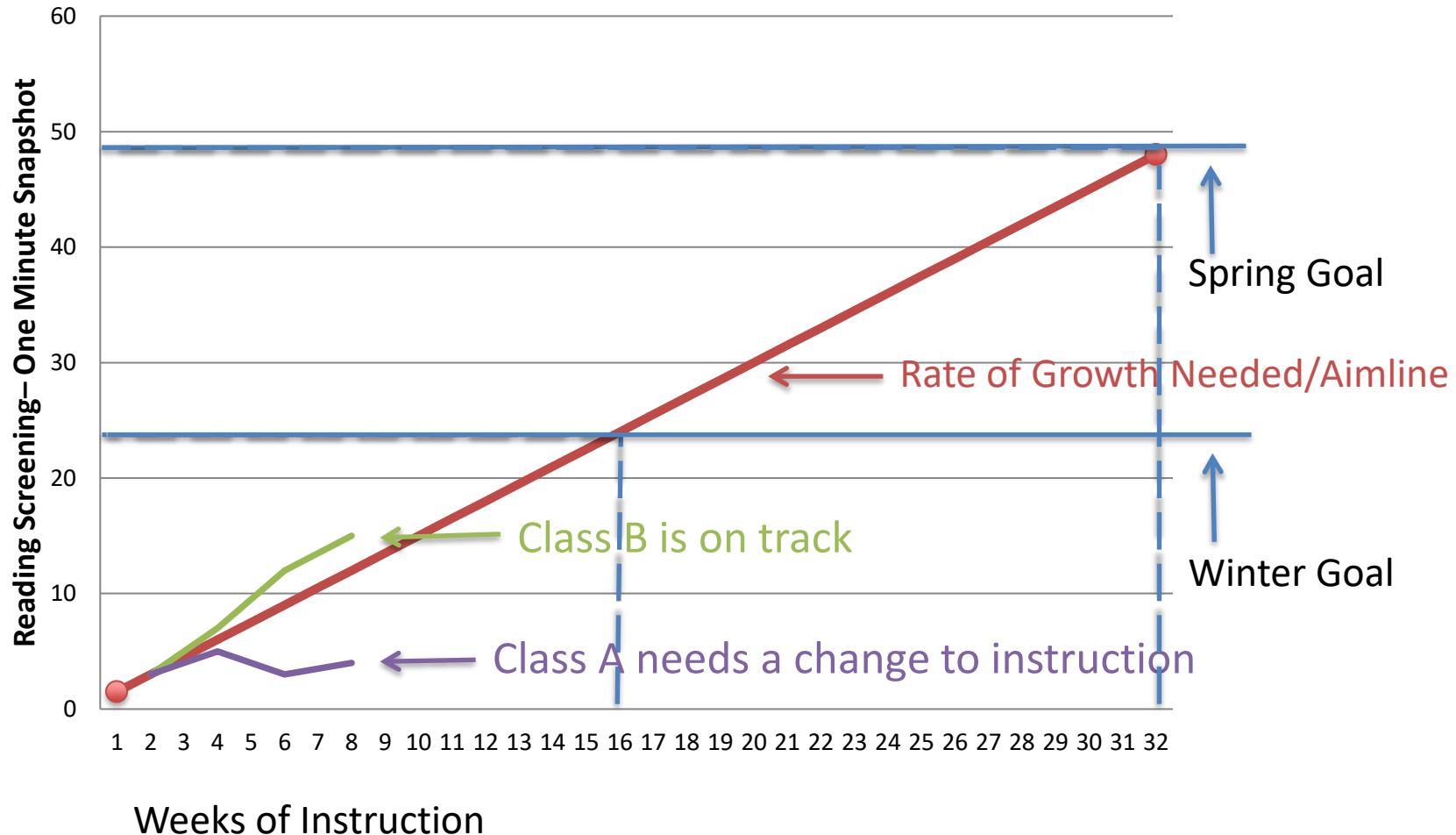
Within-Class, Within-Year Improvements



Across-Class Differences



Weekly Monitoring of Learning to Assure Milestones



What Must Leaders Know?

- What actions are underway?
- What are the results right now?
- Where is support needed?
- Are proximal indicators headed in the right direction?
- What are the barriers we can troubleshoot?

1st Grade

← Student Groups:
View Groups ▾

Summary Notes for 1st Grade

- [Group 01#1 \(CourseId-SectionId\)](#): Progress is fantastic. This class is progressing at 1.9 weeks per skill. We'd recommend asking this teacher what's working and if they have any tips for others!
- [Group 01#1 \(CourseId-SectionId\)](#): This class has been on one skill for over 4 weeks. It might be worth checking in with them.
- [Group 01#1 \(CourseId-SectionId\)](#): This class has low intervention consistency. This means scores aren't being entered in Spring Math each week. We would recommend checking with them to make sure the scores can be entered.
- [Group 01#2 \(CourseId-SectionId\)](#): Progress is fantastic. This class is progressing at 1.8 weeks per skill. We'd recommend asking this teacher what's working and if they have any tips for others!

[Show More](#)

Classwide Interventions

Teacher (Group)	Total Students in Interventions	Most recent score entry	Intervention Progress	Intervention Consistency	Average Weeks Per Skill	Calculations as Of Date
D User (Group 01#1 (CourseId-SectionId))	13	05/14/2018	<div style="width: 100%;"><div style="width: 100%; background-color: #00a68a;">Intervention Skill 9 of 10</div></div>	76% <small>13 of 17 weeks with scores</small>	1.9	01/10/2018 x
D User (Group 01#2 (CourseId-SectionId))	13	05/10/2018	<div style="width: 100%;"><div style="width: 100%; background-color: #00a68a;">Intervention Skill 9 of 10</div></div>	75% <small>12 of 16 weeks with scores</small>	1.8	01/22/2018 x
D User (Group 01#3 (CourseId-SectionId))	14	05/11/2018	<div style="width: 100%;"><div style="width: 100%; background-color: #00a68a;">Intervention Skill 9 of 10</div></div>	82% <small>14 of 17 weeks with scores</small>	1.9	01/09/2018 x

Individual Interventions

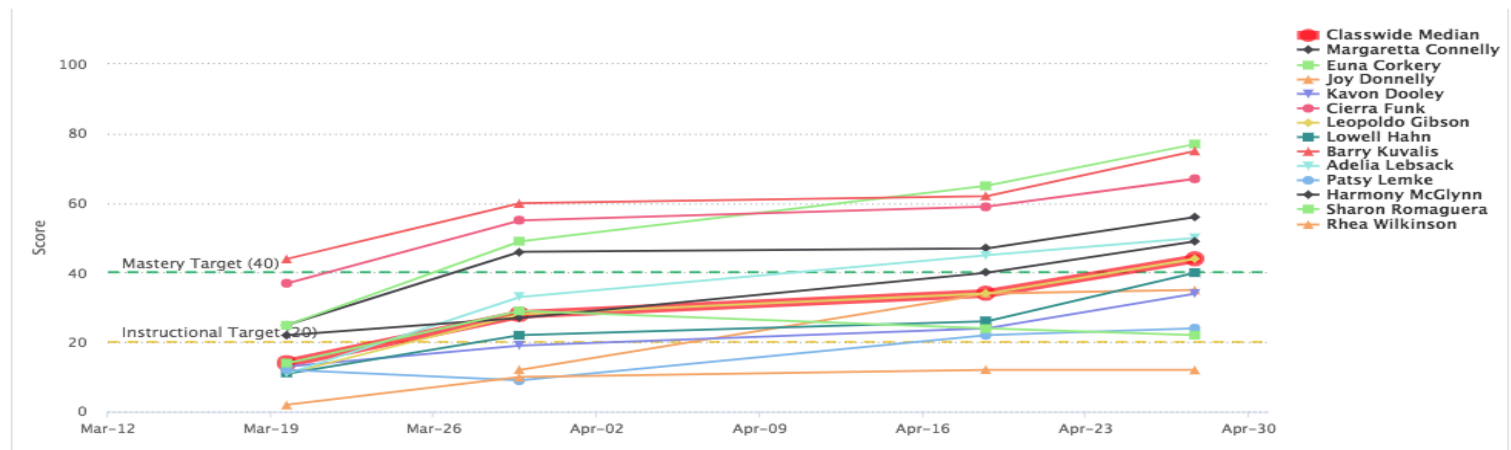
Teacher (Group)	Current Intervention	Most recent score entry	Intervention Consistency	Average Weeks Per Skill	Calculations as Of Date
D User (Group 01#1 (CourseId-SectionId))					
Connelly, Margaretta 1234	Sums to 20	N/A	0% <small>0 of 5 weeks with scores</small>	N/A	08/31/2018 x
D User (Group 01#2 (CourseId-SectionId))					

Your class is currently in class wide intervention. Complete intervention activities daily and enter progress monitoring scores weekly.

Fact Families: Add/Subtract 0-9

Create Intervention Materials

Classwide Rate of Improvement: 4.7



This class/group is not in the active school year. The form is disabled and kept for reference only.

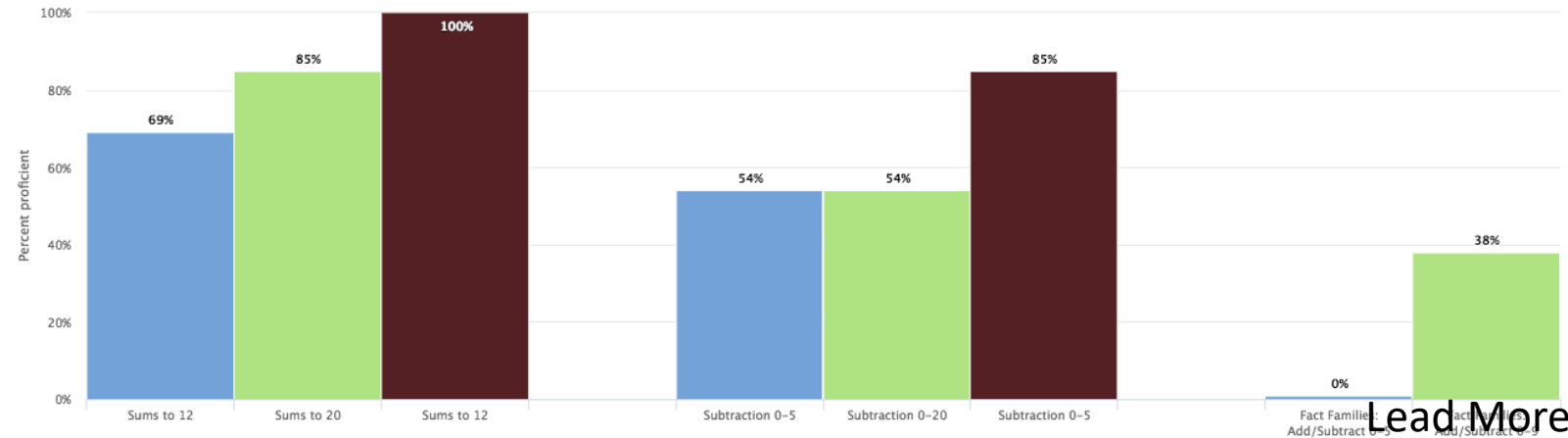
Hide Students scores

Teacher: Are Students Growing?

Teacher: Does Growth Transfer?

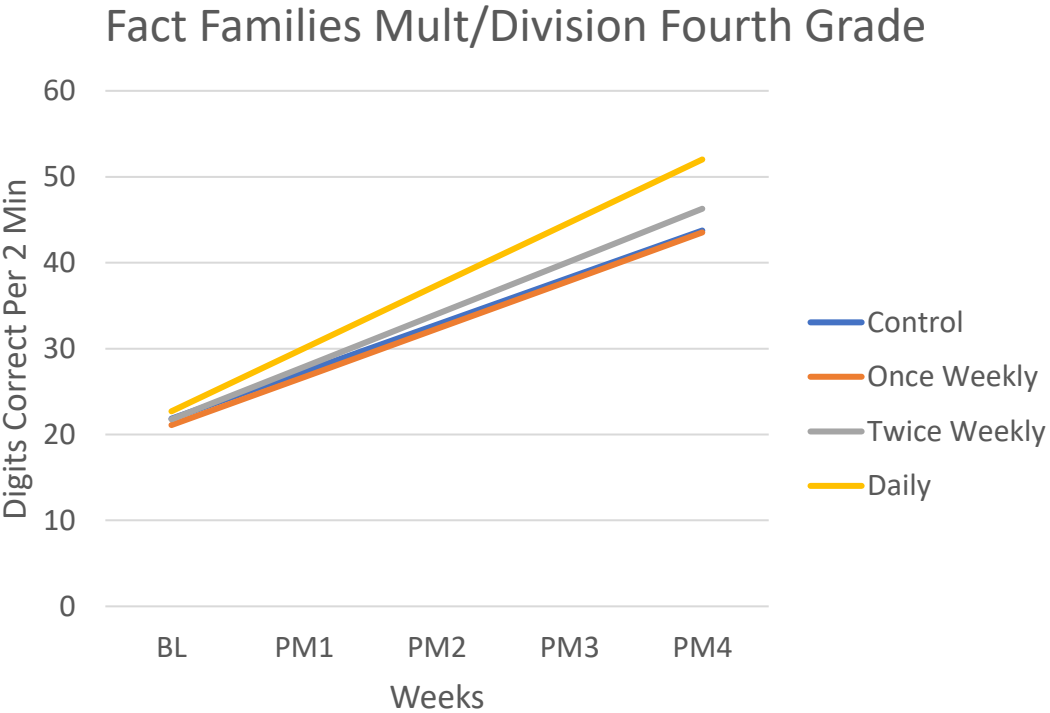
Winter To Spring

Seasonal Growth



Lead More Effectively

Dose What is Needed, Not What Fits Schedule



2014-15 Northwood-Kenast Master Class Schedule

Class	1	2	3	4	5	6	7	8
1st	1st	2nd	3rd	4th	5th	6th	7th	8th
2nd	1st	2nd	3rd	4th	5th	6th	7th	8th
3rd	1st	2nd	3rd	4th	5th	6th	7th	8th
4th	1st	2nd	3rd	4th	5th	6th	7th	8th
5th	1st	2nd	3rd	4th	5th	6th	7th	8th
6th	1st	2nd	3rd	4th	5th	6th	7th	8th
7th	1st	2nd	3rd	4th	5th	6th	7th	8th
8th	1st	2nd	3rd	4th	5th	6th	7th	8th
9th	1st	2nd	3rd	4th	5th	6th	7th	8th
10th	1st	2nd	3rd	4th	5th	6th	7th	8th
11th	1st	2nd	3rd	4th	5th	6th	7th	8th
12th	1st	2nd	3rd	4th	5th	6th	7th	8th
13th	1st	2nd	3rd	4th	5th	6th	7th	8th
14th	1st	2nd	3rd	4th	5th	6th	7th	8th
15th	1st	2nd	3rd	4th	5th	6th	7th	8th
16th	1st	2nd	3rd	4th	5th	6th	7th	8th
17th	1st	2nd	3rd	4th	5th	6th	7th	8th
18th	1st	2nd	3rd	4th	5th	6th	7th	8th
19th	1st	2nd	3rd	4th	5th	6th	7th	8th
20th	1st	2nd	3rd	4th	5th	6th	7th	8th
21st	1st	2nd	3rd	4th	5th	6th	7th	8th
22nd	1st	2nd	3rd	4th	5th	6th	7th	8th
23rd	1st	2nd	3rd	4th	5th	6th	7th	8th
24th	1st	2nd	3rd	4th	5th	6th	7th	8th
25th	1st	2nd	3rd	4th	5th	6th	7th	8th
26th	1st	2nd	3rd	4th	5th	6th	7th	8th
27th	1st	2nd	3rd	4th	5th	6th	7th	8th
28th	1st	2nd	3rd	4th	5th	6th	7th	8th
29th	1st	2nd	3rd	4th	5th	6th	7th	8th
30th	1st	2nd	3rd	4th	5th	6th	7th	8th
31st	1st	2nd	3rd	4th	5th	6th	7th	8th
32nd	1st	2nd	3rd	4th	5th	6th	7th	8th
33rd	1st	2nd	3rd	4th	5th	6th	7th	8th
34th	1st	2nd	3rd	4th	5th	6th	7th	8th
35th	1st	2nd	3rd	4th	5th	6th	7th	8th
36th	1st	2nd	3rd	4th	5th	6th	7th	8th
37th	1st	2nd	3rd	4th	5th	6th	7th	8th
38th	1st	2nd	3rd	4th	5th	6th	7th	8th
39th	1st	2nd	3rd	4th	5th	6th	7th	8th
40th	1st	2nd	3rd	4th	5th	6th	7th	8th
41st	1st	2nd	3rd	4th	5th	6th	7th	8th
42nd	1st	2nd	3rd	4th	5th	6th	7th	8th
43rd	1st	2nd	3rd	4th	5th	6th	7th	8th
44th	1st	2nd	3rd	4th	5th	6th	7th	8th
45th	1st	2nd	3rd	4th	5th	6th	7th	8th
46th	1st	2nd	3rd	4th	5th	6th	7th	8th
47th	1st	2nd	3rd	4th	5th	6th	7th	8th
48th	1st	2nd	3rd	4th	5th	6th	7th	8th
49th	1st	2nd	3rd	4th	5th	6th	7th	8th
50th	1st	2nd	3rd	4th	5th	6th	7th	8th

Codding, R., VanDerHeyden, Martin, R. J., & Perrault, L. (2016). Manipulating Treatment Dose: Evaluating the Frequency of a Small Group Intervention Targeting Whole Number Operations. *Learning Disabilities Research & Practice, 31*, 208-220.



Lessons Learned

1. Specialized instruction is a myth. Intensified instruction is not.
2. Effective instruction saves lives.
3. Use classwide intervention.
4. Manage interventions.
5. Intensify Instruction Smarter.
6. Assess less.
7. Lead more effectively.

Final Questions, Discussion

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