Practices & Instructional Strategies that Strengthen Mathematics in Your Title I, Part A Program

Presented By: Kristi Coe, Stephanie Bolinger, Sandra Goetz & Debbie Sells

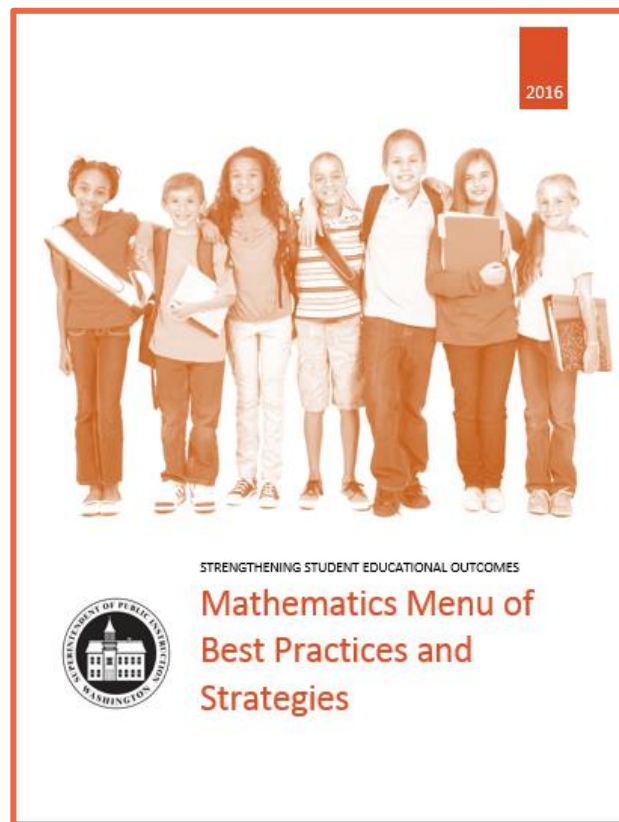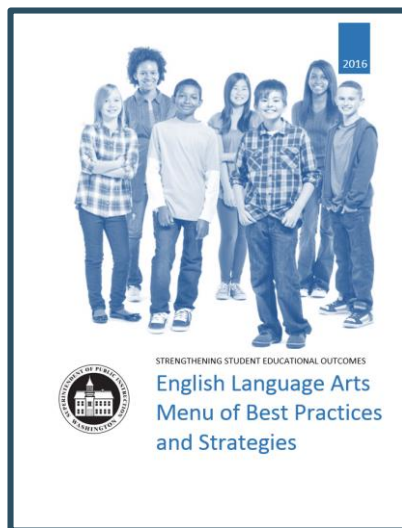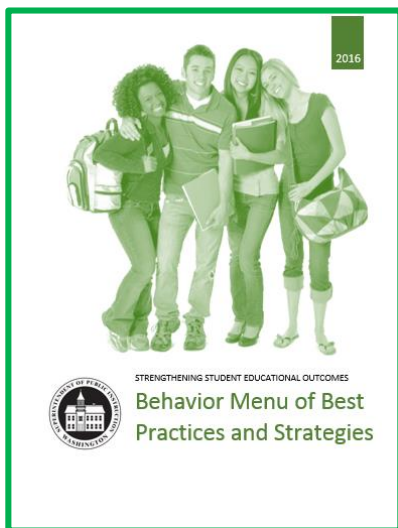OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION

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Strengthening Student Educational Outcomes

STRENGTHENING STUDENT EDUCATIONAL OUTCOMES
Behavior Menu of Best Practices and Strategies

STRENGTHENING STUDENT EDUCATIONAL OUTCOMES
English Language Arts Menu of Best Practices and Strategies

STRENGTHENING STUDENT EDUCATIONAL OUTCOMES
Mathematics Menu of Best Practices and Strategies

Menus of Best Practices & Strategies

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Stephanie Bolinger, Mathematics Instructional Coach
17 Years in Education, All Years at Martin Sortun
9 Years as a Math Coach

Sandra Goetz, 5th Grade Teacher
17 Years in Education
10 Years at Martin Sortun

Debbie Sells, 4th Grade Teacher
23 Years in Education
13 Years at Martin Sortun

Introductions

Kent School District:

- 4th Largest District In Washington State
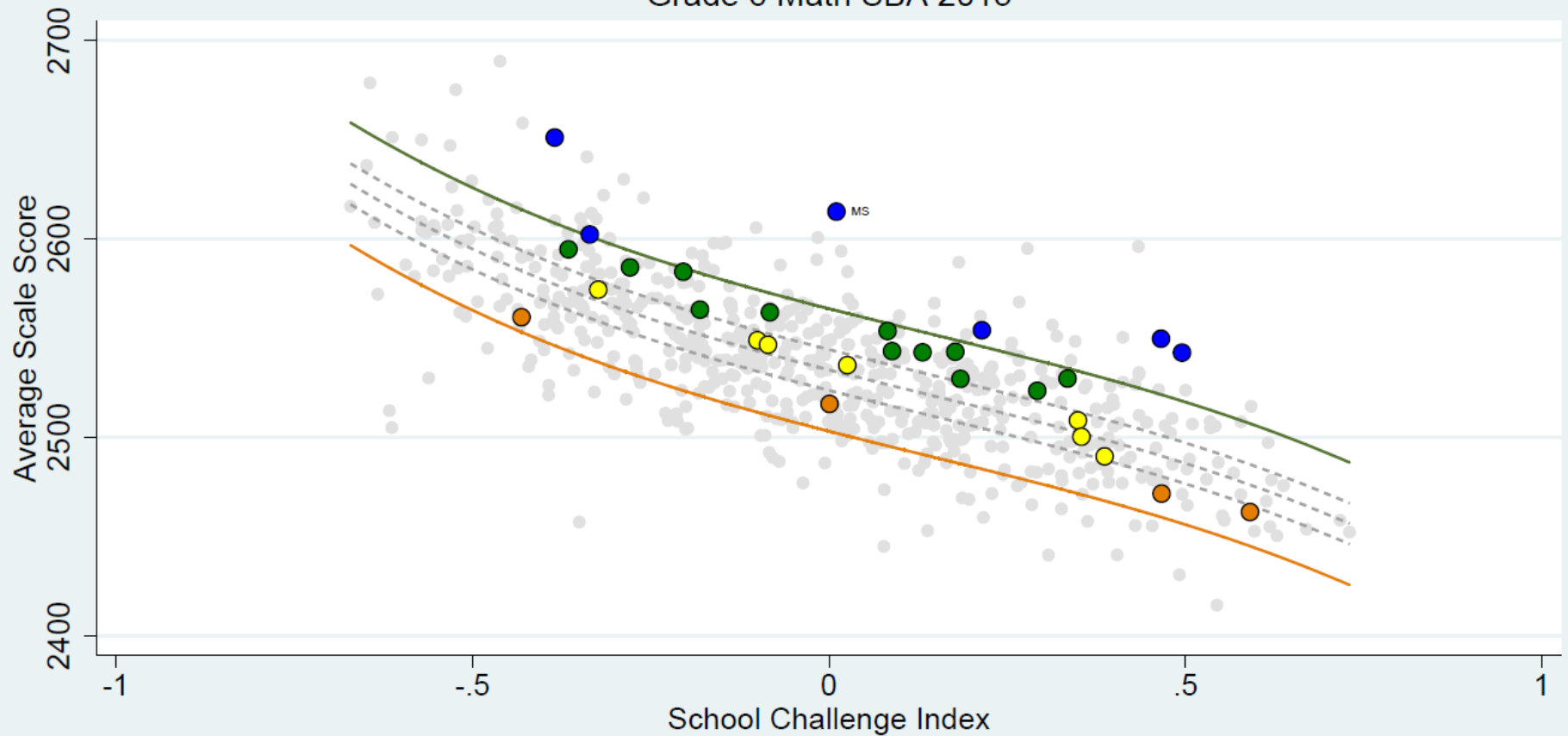- 21 Title 1 Elementary Schools (28 total)

Martin Sortun Elementary:

- Total Students: 680
- Free/Reduced Lunch: 49%
- English Learners: 26%
- Special Education: 4%

Avg. Scale Score vs School Challenge Index
Grade 6 Math SBA 2015

Avg. Scale Score vs School Challenge Index
Grade 3 Math SBA 2016
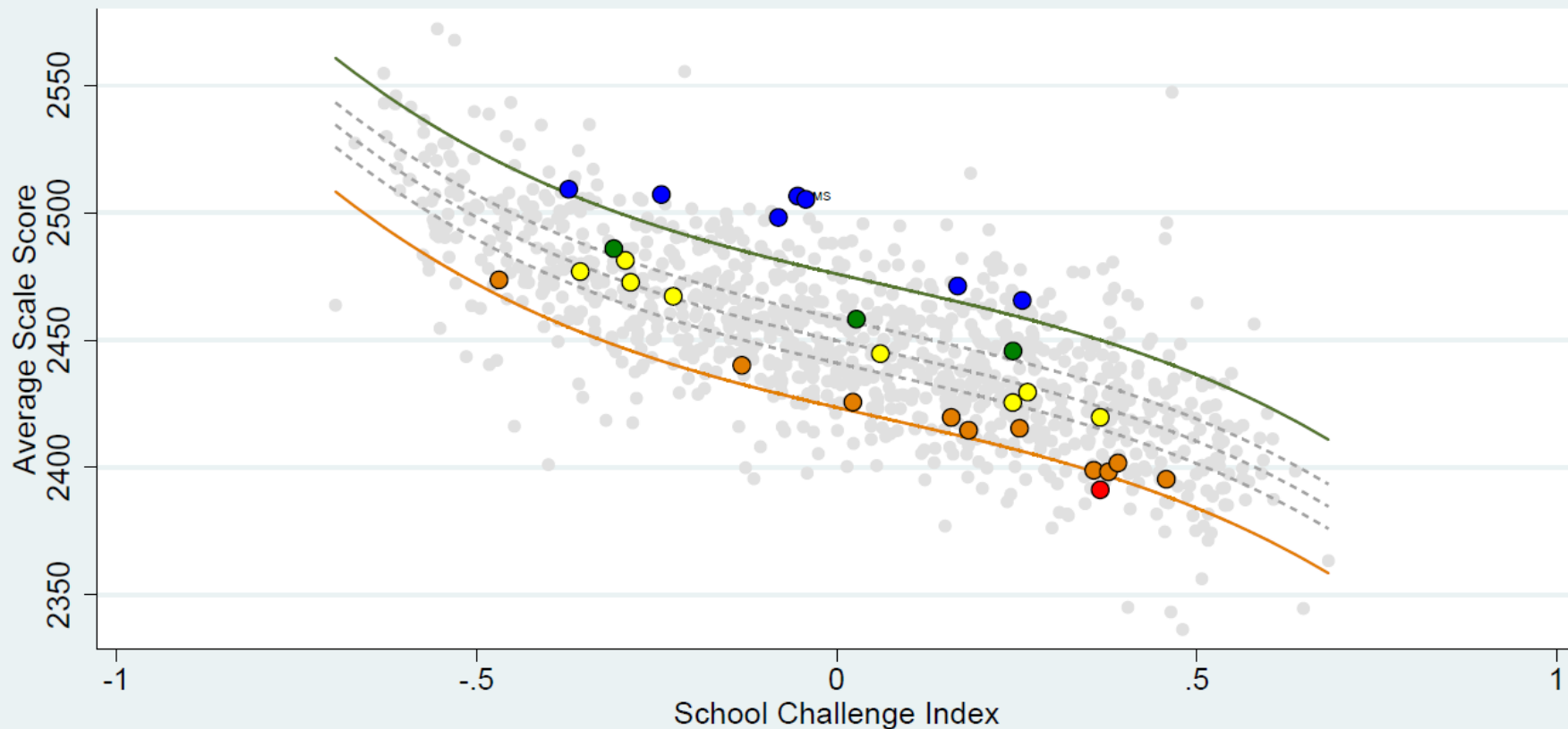
SBA 2015   WA vs Kent vs Martin Sortun
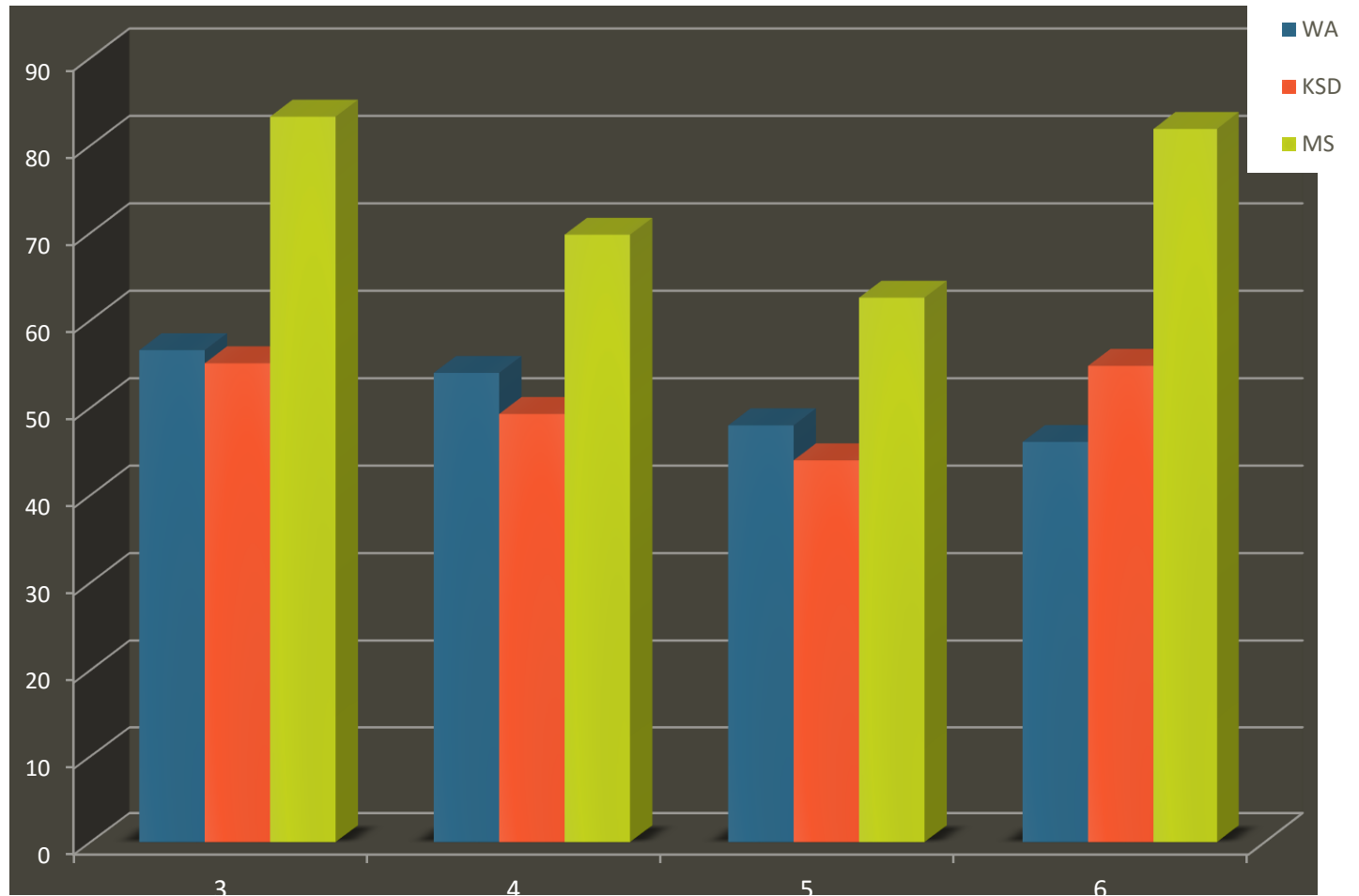
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SBA 2016   WA vs Kent vs Martin Sortun

Grade 3   **Grade 4**   **Grade 5**   **Grade 6**
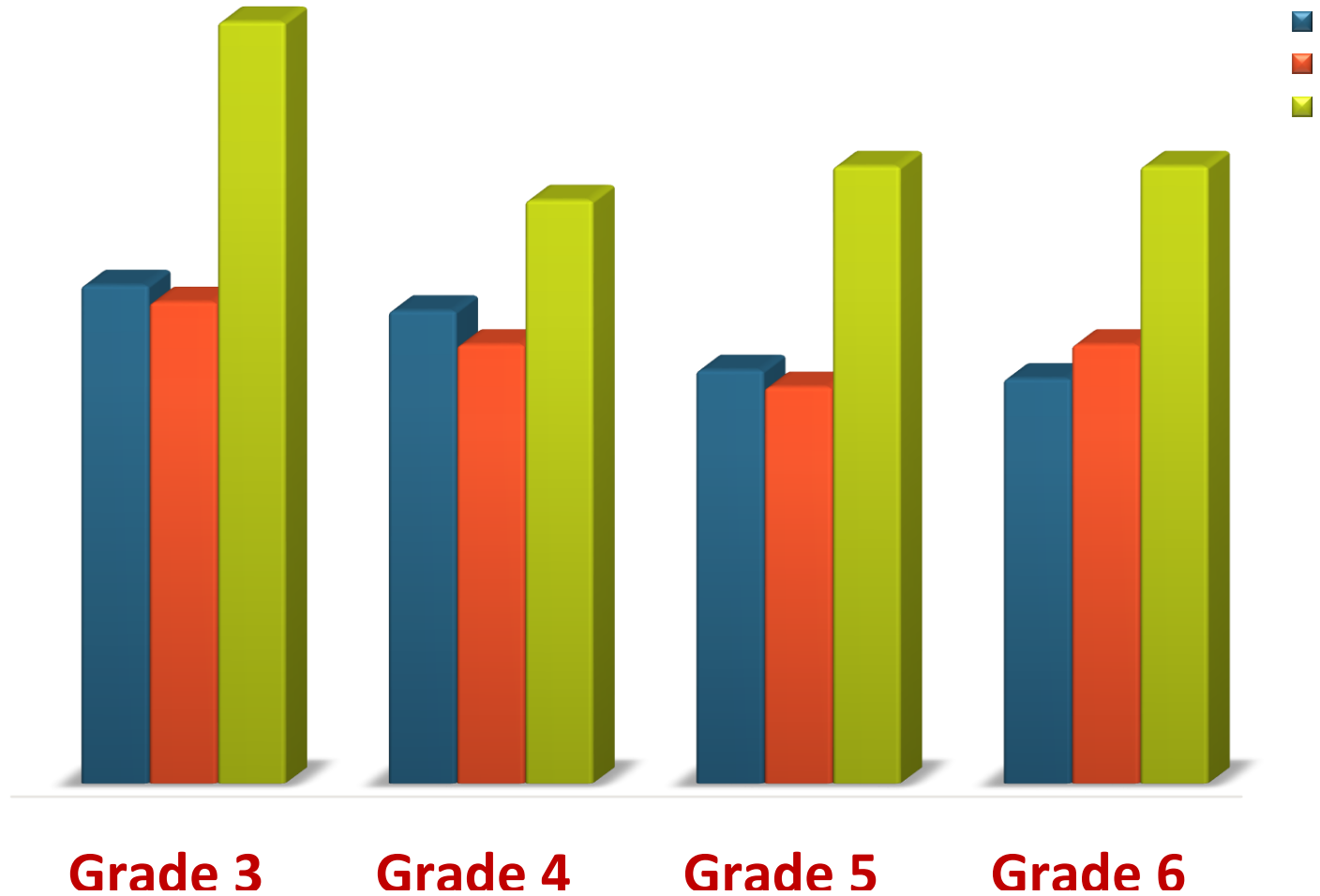
Goals For Today

- ✓ How to use assessments to drive decision making

- ✓ How to use strategies to strengthen mathematics program

- ✓ How to implement with success

Getting Started

Focus on Students
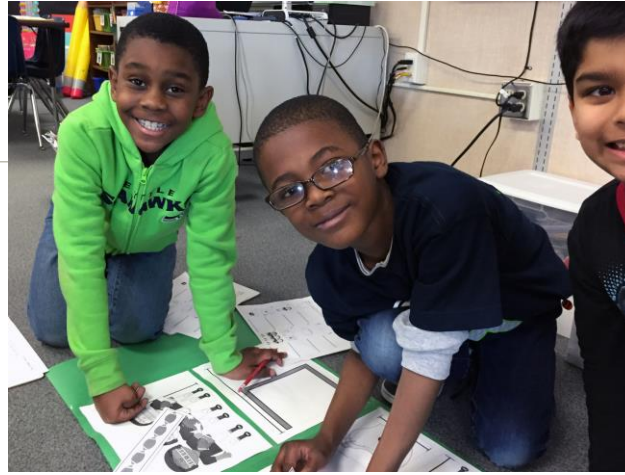
High Expectations for ALL Students AND Teachers

- Teacher and Student Relationships
- All Our Kids, Are all Our Kids
- If It Doesn't Challenge You, It Doesn't Change You
- Growth Mindset/Got Grit?
- FAIL-First Attempt in Learning
- Believe, Battle, Breathe!
- Students and Teachers that Believe They Can, Do!

Productive Struggle

ALL students benefit from school-wide Tier I instruction and supports (such as teaching academic and behavioral expectations, career and technical competencies, and social emotional skills) to be prepared for career, college, and life.

LEVEL 1

SOME students can benefit from supplemental Tier II instruction and supports (such as a reading or math intervention or behavioral check-in). These students are identified as needing more intensive or accelerated academic, career, behavioral, and/or mental health interventions in addition to Tier I services.

LEVEL 2

A SMALL NUMBER of students can benefit from intensive Tier III instruction and supports (such as those provided through community partnerships and specialized programs to provide more intensive or accelerated academic, career, behavioral, and/or mental health supports). These students may need case management or accelerated instruction in addition to Tier I services.

LEVEL 3

ACT [act on evidence]

PLAN [clarify intended outcomes]

A quality improvement process (plan, do, study, act) ensures the systems and interventions are effectively meeting the needs of students.

STUDY [interpret evidence]

DO [elicit evidence]
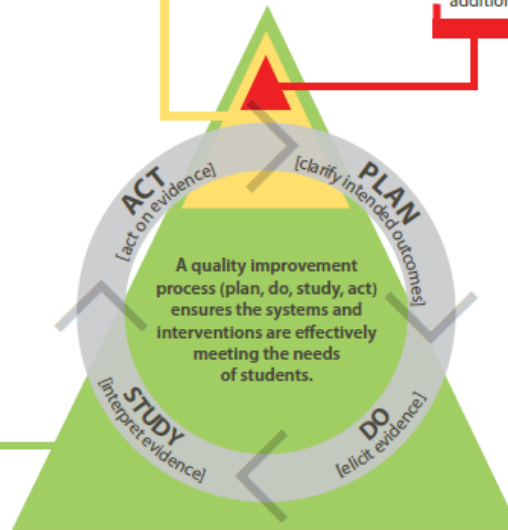
Figure 1. Multi-Tiered System of Supports, from OSPI.

MTSS & Comprehensive Assessment System

Assessments serve different purposes

Universal Screeners

- Identify potentially at-risk students
- Tend to over identify students
- Take place at scheduled intervals
- Are followed by diagnostic assessments
- Do not drive instructional decisions

MBSP (Monitoring Basic Skills Progress) Basic Math Concepts Assessment by Fuchs, Hamlett, and Fuchs

Assessments

Assessments serve different purposes

Diagnostic Assessment Tools

- **Identify** skill levels for students
- Are administered before instruction or after screening
- **Inform** instructional decisions and intervention plans

iReady Diagnostic Test

Assessments

Assessments serve different purposes

Progress
Monitoring
Tools

- Identify students making progress
- Given at regular intervals
- Determine the next level of instruction or intervention needed
- Assesses what a student understands as a result of the instructional unit

SBA aligned items written by Martin Sortun Teachers per Test and Item Specs

Assessments

Comprehensive Data Monitoring and Data Driven Placement

- Grade level spreadsheets maintain all collected data points
- Placement is determined by data
- Minor adjustments made for special circumstances: ELL, Behavior, personality
- Students are shared between teachers "All Our Kids Are All Our Kids"
- Placement is re-evaluated every 4-6 weeks

Data Responsive Interventions

Sample Grade Level Math Spreadsheet

Student ID	Homeroom Teacher	Strategic Teacher	Last Yr Teacher	Gender	Ethnicity	New to Martin Sortun	Title	ELL	IP	HiCap	4th SBA-Math Score	4th SBA-Math Level	4th EOY iReady Score	4th EOY iReady Lvl	5th BOY iReady Score	5th BOY iReady Lvl	Mid Mod 1	End of Mod 1	Mid Mod 2	End of Mod 2	Correct	Attempted	Accuracy Sept 4-30	Seconds	Rate Sept 4-30
	Goetz	Adv M-No	Sells	M	Black			L4			2560	Level 4	493	Mid 4	491	Early 5	3	3	2	3	22	25	88.00%	239	10.9
	Goetz	Intensive-Yes	Mills	M	White		Y	L3			2308	Level 1	391	Level 1	373	Level K	1	1	1	1	1	11	9.09%	240	240.0
	Goetz		Steck	M	Other		Y				2430	Level 2	474	Early 4	448	Level 3	2	2	1	1	7	11	63.64%	240	34.3
	Goetz		Mills	F	Hispanic/Latino			L4			2455	Level 2	477	Early 4	477	Level 4	2	2	1	1	5	8	62.50%	240	48.0
	Goetz	Intensive-Yes	NEW	M	Black	Y	Y				2351	Level 1	424	Level 2	412	Level 1	3	1	1	1	3	8	37.50%	240	80.0
	Goetz	Bolinger	Sells	F	Other						2659	Level 4	523	Late 4	531	Late 5	4	3	3		17	19	89.47%	240	14.1
	Goetz	Bolinger-No	Mills	F	Hispanic/Latino						2571	Level 4	514	Mid 4	479	Level 4	3	3	3	1	10	13	76.92%	240	24.0
	Goetz	Intensive-Yes	Chia	F	Hispanic/Latino		Y				2378	Level 1	453	Level 3	427	Level 2	2	1	2	1	4	7	57.14%	240	60.0
	Goetz	Bolinger	Chia	F	White						2594	Level 4	507	Mid 4	491	Early 5	4	3	3	4	12	14	85.71%	240	20.0
	Goetz	Bolinger	Steck	M	Black				B/SS		2634	Level 4	511	Mid 4	498	Mid 5	4	4	4	4	13	13	100.00%	240	18.5
	Goetz	Bolinger	Sells	M	Asian			L4			2572	Level 4	516	Mid 4	518	Mid 5	4	4	4	3	18	18	100.00%	240	13.3
	Goetz	Bolinger	Sells	M	White						2581	Level 4	496	Mid 4	505	Mid 5	4	3	3	3	20	22	90.91%	240	12.0
	Goetz	Adv M-No	Steck	M	Asian			L3			2561	Level 4	486	Mid 4	481	Early 5	4	3		3	20	23	86.96%	240	12.0
	Goetz		Chia	F	Pacific Islander		Y				2430	Level 2	458	Level 3	439	Level 3	3	2	1	2	1	5	20.00%	240	240.0
	Goetz		NEW	M	Other	Y	Y				2459	Level 2	466	Early 4	467	Level 4	4	4	1	1	14	18	77.78%	240	17.1
	Goetz		Sells	F	White		Y				2421	Level 2	407	Level 1	452	Level 4	2	1	1	1	4	13	30.77%	240	60.0

- ❑ Build trusting relationships with classroom teachers
- ❑ Expertise in content, standards, and pedagogy
- ❑ Provide feedback in a non-evaluative format
- ❑ On-going, continuous coaching

Instructional Coaches

Professional Leadership

- **Comprehensively knowledgeable** on K-6+ math standards and best practice through **ongoing** personal professional development

Instructional Coaches

Professional Leadership

- Provide job embedded support directly to classroom teachers for both math content and pedagogy with a focus on the standards
  - Non Evaluative Coaching
  - Professional Learning Communities
  - Targeted Professional Learning

Instructional Coaches

Professional Leadership

- Oversee and evolve a cohesive building model for math instruction and intervention that moves the building forward in terms of current standards and best practice.

Instructional Coaches

❑ Shared vision
❑ Collaboration
❑ Data-informed decisions
❑ Clear protocol
❑ Continuous improvement
❑ Student outcomes

Professional Learning Communities

Supported Learning Through Collaboration

- Focus on student learning and the standards
  - Collaborative analysis of data and student work
  - Teacher strengths and weaknesses are an opportunity to support and learn from each other
  - Shared action plan for differentiation

Professional Learning Communities

- ❑ On-going
- ❑ Research-based
- ❑ Practice and feedback
- ❑ Increase educator expertise
- ❑ Aligned to student achievement goals

Targeted Professional Learning

Supported Learning Through Instructional Leadership

- Studio Days: Model Lessons by Coach or Expert Teacher
- Release time to identify, create, or evaluate common formative assessments and to analyze data
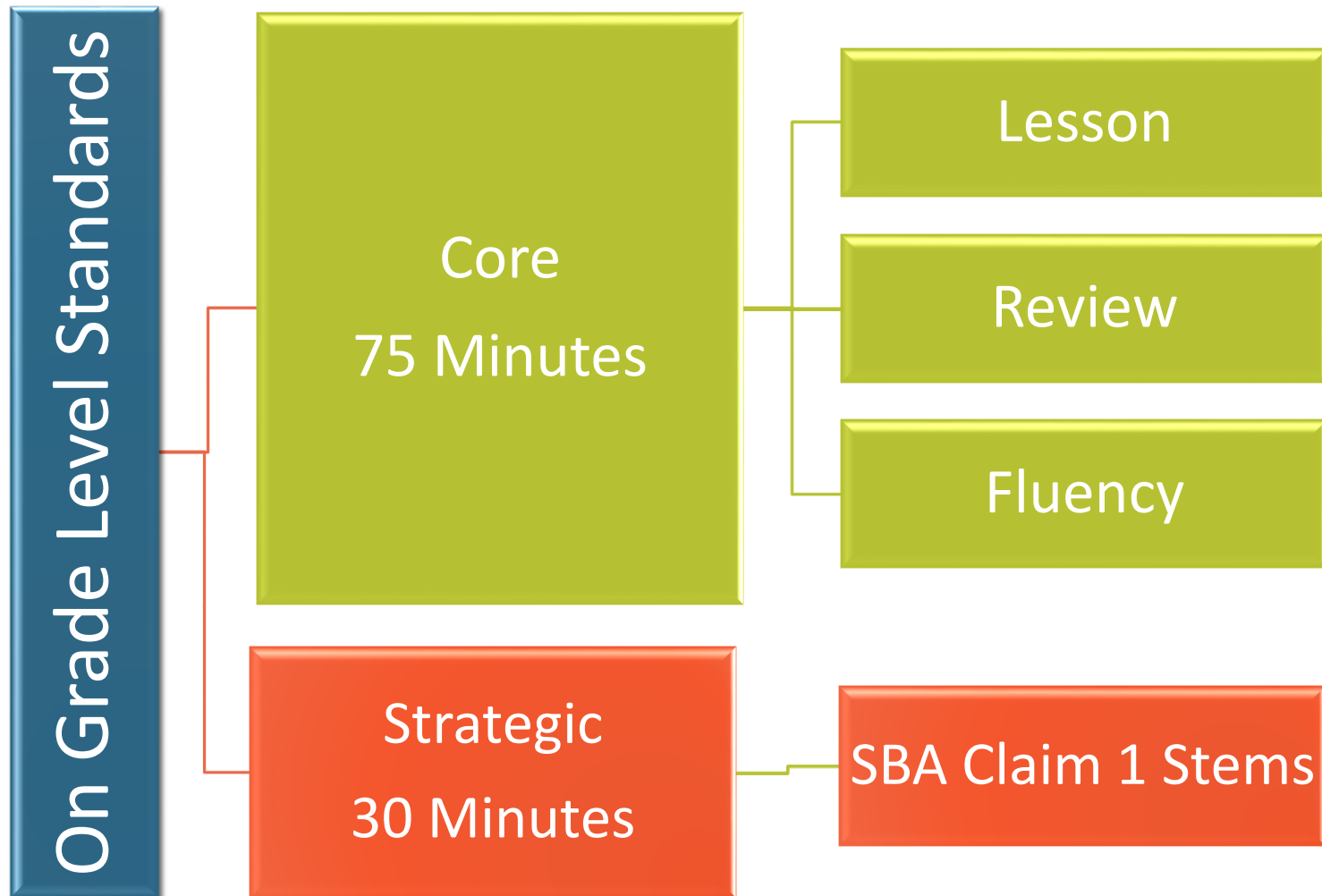- Book Study-Number Talks and Classroom Discourse

Targeted Professional Learning

❑ Aligned to core instruction

❑ Opportunities for discourse

❑ Concept & skill development

❑ Tier 2 students

❑ Quality of instruction

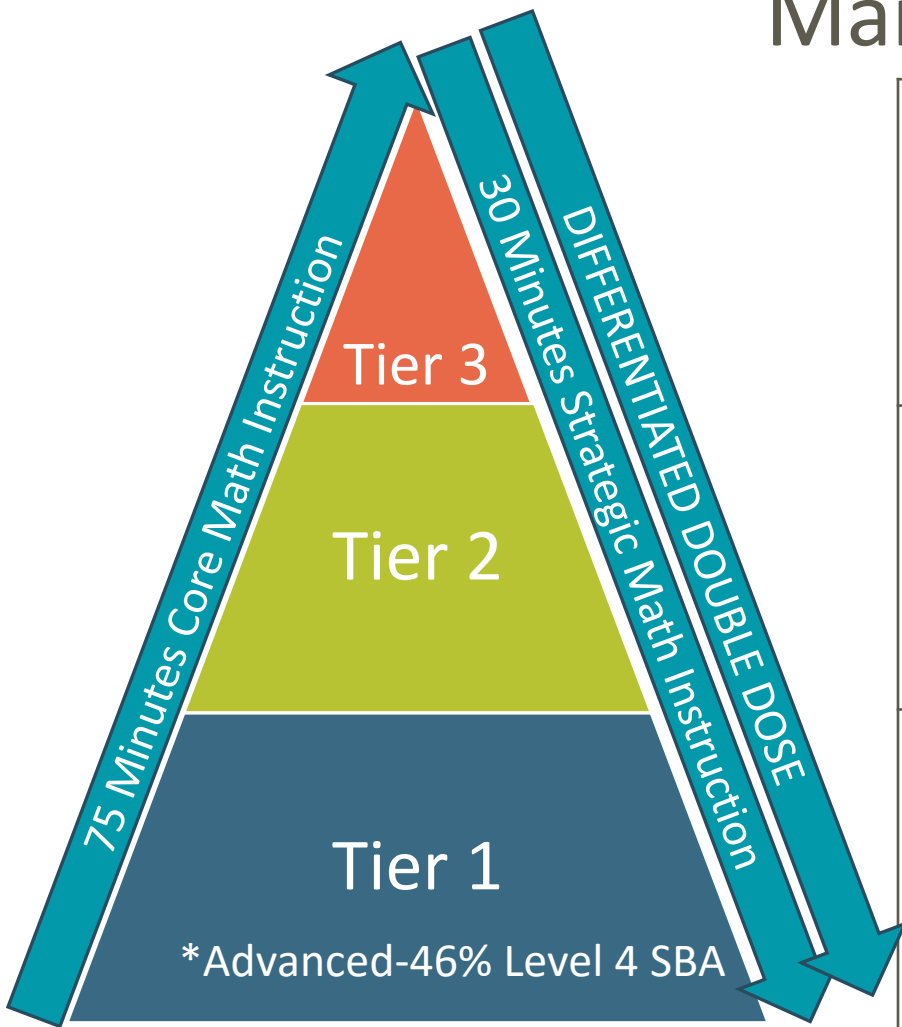# Double Dosing

Martin Sortun Math Model

Martin Sortun Math Model

75 Minutes Core Math Instruction

30 Minutes Strategic Math Instruction

DIFFERENTIATED DOUBLE DOSE

Tier 3

Tier 2

Tier 1

*Advanced-46% Level 4 SBA

Tier 3 "Intensive"

- Small Group of 6 or less
- Certificated Interventionist
- Focus: **On Grade Level Foundational, Priority Standards**

Tier 2 "Strategic"

- Small Group of 6-12
- Certificated Classroom Teacher
- Focus: **On Grade Level Priority Standards**

Tier 1 "Benchmark" & "Advanced"

- Large Group of 20-24; 24-28
- Certificated Classroom Teacher; Certificated Math Specialist
- Focus: **All On Grade Level Standards**; **Above Grade Level Standards** & Higher Rigor

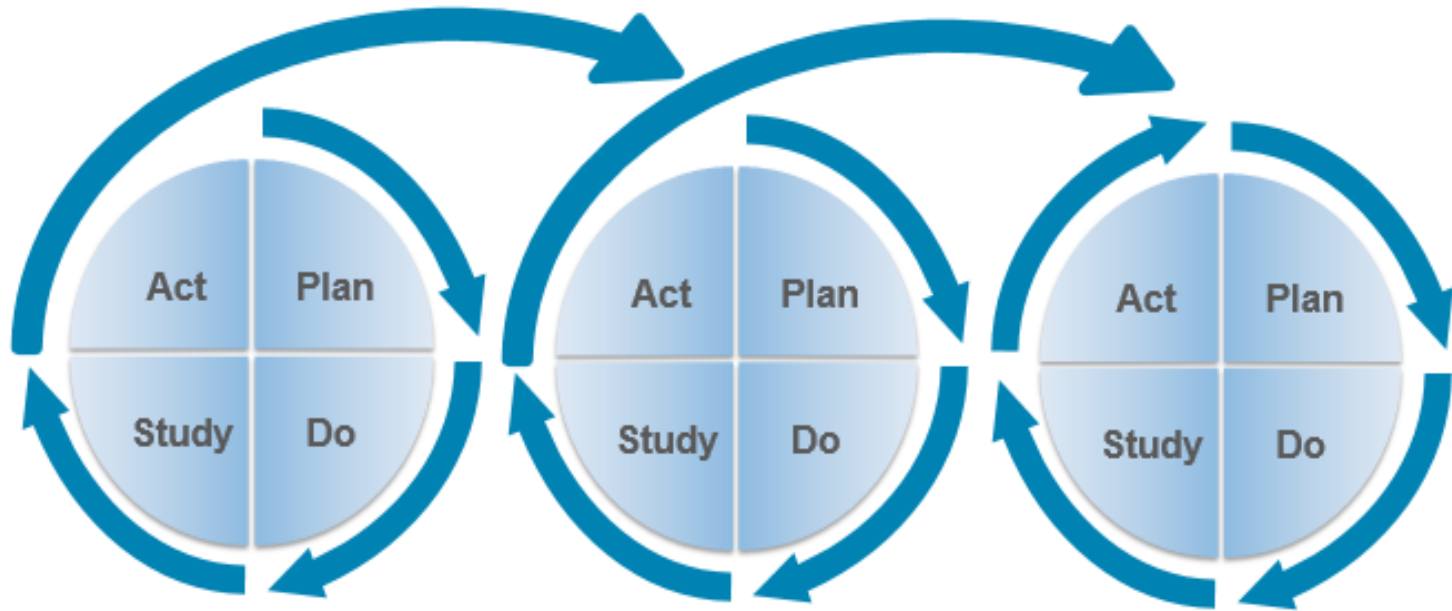OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION

Active Implementation

"It has been said that **implementation is 90% of impact**. The very same intervention applied in one school, locale, or state may yield quite different results than when employed in another. Problems of inadequate resources, weak commitment, or poor fit are often cited to explain disappointing outcomes."

J.A. O'Day and M.S. Smith 2016

Active Implementation

Active Implementation

EUGENE KIM AND THE WONDERS OF INFLIGHT CONSTRUCTION

Active Implementation

Supported Change Through Instructional Leadership

Rapid evolution to a model is driven by:
- Changing Standards
- Changing Summative Assessments
- Changing Resources

Active Implementation

Supported Change Through Instructional Leadership

Ideal evolution to a model is driven by:

- Teachers
- Instructional Coaches providing support

It refines current models and provides foundational consistency for at least 3 years

Active Implementation

...delivering an intervention as it was intended to be delivered according to the implementation team's plan.

Implementation Fidelity

How does your district currently ensure implementation fidelity?

How does your district currently review the implementation effectiveness of instruction/interventions?

Fidelity & Effectiveness

Questions?

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Thank you!

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