

Using Data for Effective Turnaround Webinar Series

Making Data Accessible

***School Turnaround
Learning Community***



October 4, 2011

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School Improvement Vision

In participating school and districts,

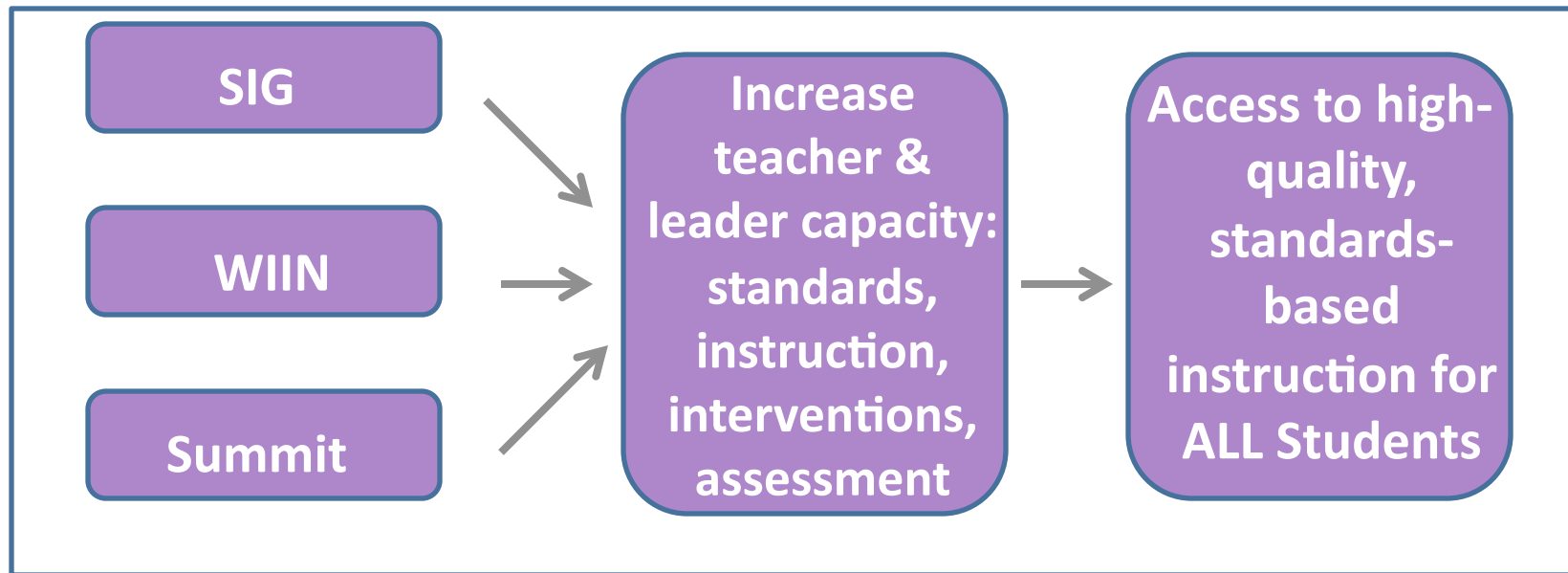
- **Every student** has access to high-quality, standards-aligned instruction.
- **All educators** are prepared for and receive support to bring Washington's vision to life and ensure each student has opportunity to achieve to high standards.



School Improvement: Washington's Vision Comes to Life

Purpose: Ensure districts fully implement research-based practices and interventions and build capacity to ensure **ALL students graduate** prepared for college and careers.

Theory of Action:



Critical Purpose

Develop and field test program elements intended to strengthen and expand the knowledge base, tools, and training of WA educators in support of a systems approach that can, with sufficient funding, be scaled statewide.

Current Programs

Summit District Initiative Purpose: Ensure districts build system-wide capacity and scale-up effective tools, processes, and practices to *substantially raise student achievement in ALL schools across the district.*

(lowest performing districts prior to SIG; serves 8 districts; (33,330 students)

WIIN - Purpose: Ensure districts build system-wide capacity and scale-up effective tools, processes, and practices to *substantially raise student achievement in ALL schools across the district.*

Washington Implementation and Improvement Network (volunteered from among lowest quintile of schools; 107 schools; 46,379 students)

MERIT Schools - Purpose: Ensure schools/districts implement selected intervention, so they substantially increase student achievement and exit improvement status.

Models of Equity and Excellence through Rapid Improvement and Turnaround (SIG schools; 27 schools; 14,582 schools)

Data Partners

Baker Education Research Consultation (The BERC Group)
Needs Assessment, Academic Audit, Assessment of Progress,
College Tracking Data (www.collegetracking.com)

Center for Educational Effectiveness (CEE)
Dashboards, ELL Analysis, Advanced Achievement Gap Report

Teachscape
Classroom Walkthrough Data

Data Director (Riverside)
Math Benchmark Assessments

Assessment of Progress

- School and Classroom Findings
 - High School Outcomes Data (course offering pattern analysis, graduation rates, college direct and college persistence)
 - STAR Report (instructional practices)
 - Summary and Recommendations
- Appendices
 - Assessment of required elements in place and of ability to put into place
 - Colleges attended by students 2004-2009
 - Staff, student, parent surveys

Districts and schools are expected to address recommendations in the Assessment of Progress and STAR reports

See BERC Review Facilitators Handbook.pdf; this report based on the Nine Characteristics of High Performing Schools – NineCharacteristics.pdf; see Assessment_of_Progress_Synthesis_Report_MERIT_June_2011_FINAL.pdf; See SPR_Rubric_External_Review.pdf

School:	Tacoma
District:	Tacoma SD

District Data Dashboard – 2011 – Final Data

Change In Performance from 2010 to 2011

Note: The change in performance is in percentage points.

WCAP READING								
	Tacoma SD				State Results			
Grade Tested	MSP / HSPE 2011	MSP / HSPE 2010	Change	Amount	MSP / HSPE 2011	MSP / HSPE 2010	Change	Amount
Grade 3	70.2%	65.7%	↑	4.5%	73.1%	72.1%	→	1.0%
Grade 4	57.0%	61.0%	↓	-4.0%	67.3%	67.2%	→	0.1%
Grade 5	52.9%	62.5%	↓	-9.6%	67.6%	69.6%	→	-2.0%
Grade 6	56.3%	47.7%	↑	8.6%	70.6%	64.6%	↑	6.0%
Grade 7	43.3%	46.9%	↓	-3.6%	56.4%	63.4%	↓	-7.0%
Grade 8	55.0%	57.5%	↓	-2.5%	68.6%	69.4%	→	-0.8%
Grade 10	78.3%	73.8%	↑	4.5%	82.3%	78.9%	↑	3.4%

WCAP WRITING								
	Tacoma SD				State Results			
Grade Tested	MSP / HSPE 2011	MSP / HSPE 2010	Change	Amount	MSP / HSPE 2011	MSP / HSPE 2010	Change	Amount
Grade 4	50.8%	56.1%	↓	-5.3%	61.4%	61.1%	→	0.3%
Grade 7	60.2%	58.0%	↑	2.2%	71.0%	70.3%	→	0.7%
Grade 10	82.7%	84.2%	→	-1.5%	86.0%	86.0%	→	0.0%

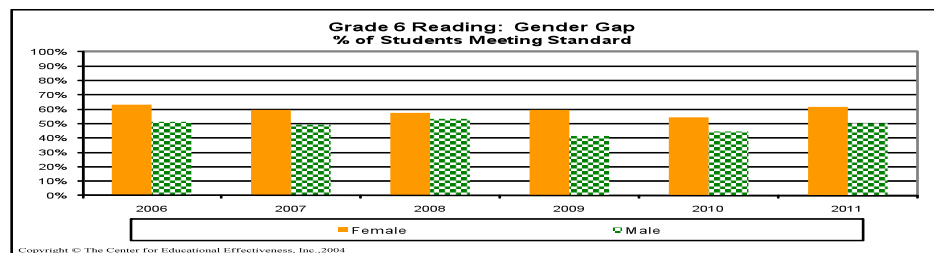
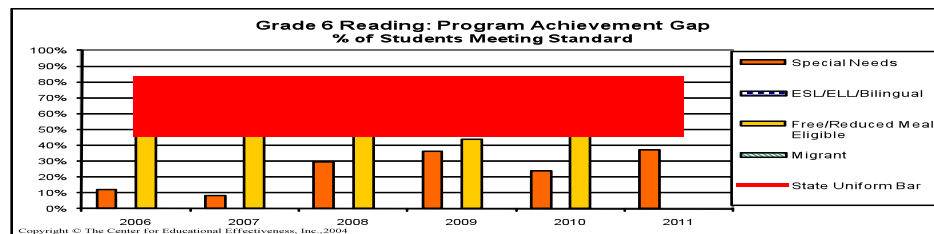
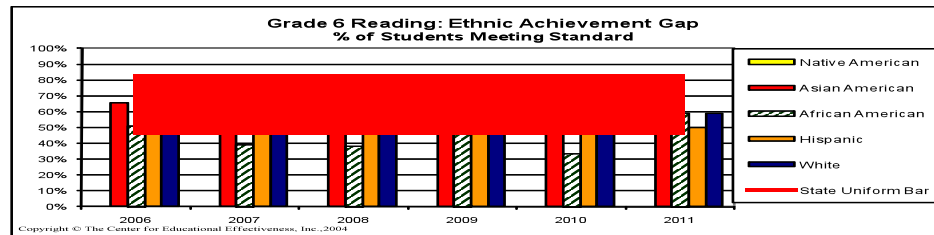
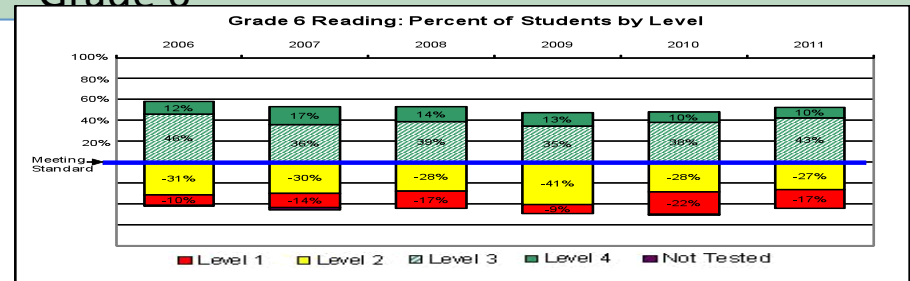
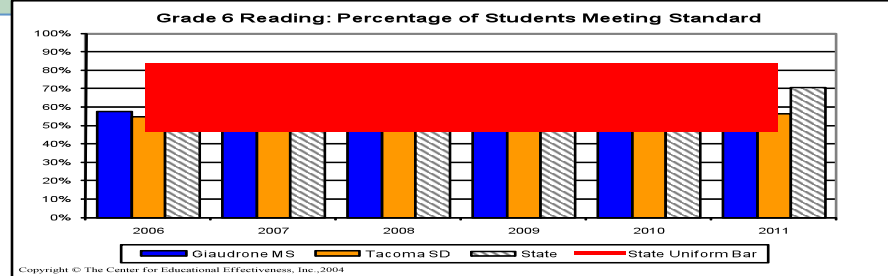
WCAP MATH								
	Tacoma SD				State Results			
Grade Tested	MSP / HSPE 2011	MSP / HSPE 2010	Change	Amount	MSP / HSPE 2011	MSP / HSPE 2010	Change	Amount
Grade 3	58.8%	54.5%	↑	4.3%	61.5%	61.8%	→	-0.3%
Grade 4	46.7%	44.5%	↑	2.2%	59.3%	53.7%	↑	5.6%
Grade 5	52.2%	44.3%	↑	7.9%	61.2%	53.6%	↑	7.6%
Grade 6	40.0%	34.3%	↑	5.7%	58.8%	51.9%	↑	6.9%
Grade 7	38.2%	33.9%	↑	4.3%	56.9%	55.3%	→	1.6%
Grade 8	34.9%	35.0%	→	-0.1%	50.3%	51.6%	→	-1.3%
Grade 10		End of Course Results Reported Separately				41.7%		

WCAP SCIENCE								
	Tacoma SD				State Results			
Grade Tested	MSP / HSPE 2011	MSP / HSPE 2010	Change	Amount	MSP / HSPE 2011	MSP / HSPE 2010	Change	Amount
Grade 5	41.3%	21.0%	↑	20.3%	55.6%	34.0%	↑	21.6%
Grade 8	44.3%	38.9%	↑	5.4%	61.5%	54.5%	↑	7.0%
Grade 10	38.9%	32.4%	↑	6.5%	49.7%	44.8%	↑	4.9%

School:	Giaudrone MS
District:	Tacoma SD

School Data Dashboard – Final Data

Reading Grade 6



See F-SDD-6-7-8-Giaudrone MS-2011-8x11.pptx

Advanced Achievement Gap

Center for Educational Effectiveness

- The purpose of the Advanced Gap Reports is to expand our views of the achievement gaps in schools and districts. This analysis uses data from 2006 through 2010 WASL/MSP/HSPE years.
- Critical questions for this analysis include:
 - When we isolate poverty and ELL status and then compare across ethnic groups, is there an achievement gap? What is the size of the gap?
 - When we isolate poverty and ELL status, how do our students perform relative to the same students from the state?
 - What is the size of the gap based on Ethnicity, Poverty, ELL status? Are there cross-ethnicity differences?

See AdvGap-V3-Bldg-6-8-Giaudrone MS.pdf

Purpose of Mathematics Benchmark Assessments

- Provide a bridge between classroom assessments and the end-of-year summative assessments, and provide standards-based data to:
 - Evaluate student learning of specific state mathematics standards.
 - Analyze patterns of student need to inform changes to the mathematics curriculum and instruction.
 - Synthesize student misconceptions to inform instructional strategies and interventions.
-

Design of Mathematics Benchmark Assessments

- Test designed to assess K-8 & high school WA Mathematics Standards in the same way as the MSP/EOC
 - All districts and schools assess the same standards with the same items over three benchmark assessments
 - Standards are assessed *after* they have been taught
 - OSPI/ESD collaborates with each district to design *blueprint* to closely align with district instructional pacing
 - District pacing can be designed to match the OSPI blueprint
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Test Blueprint

Grade 3

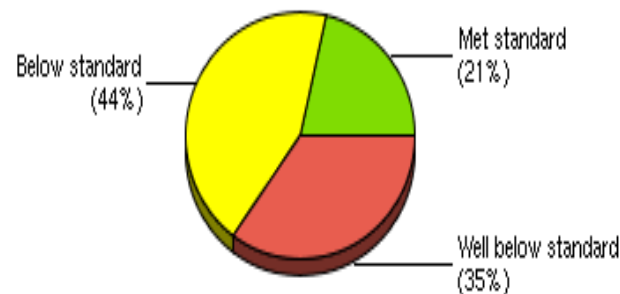
Standard/Performance Expectation		Essential Standards	Benchmark 1 November	Benchmark 2 February	Benchmark 3 April
3.1.A	Read, write, compare, order, and represent numbers to 10,000 using numbers, words, and symbols.	◇		X	
3.1.B	Round whole numbers through 10,000 to the nearest ten, hundred, and thousand.				
3.1.C	Fluently and accurately add and subtract whole numbers using the standard algorithm.		X		
3.1.D	Estimate sums and differences to approximate solutions to problems and <i>determine reasonableness of answers</i> .				
3.1.E	Solve single- and multi-step word problems involving addition and subtraction of whole numbers and <i>verify the solutions</i> .	◇	X		
3.2.A	Represent multiplication as repeated addition, arrays, counting by multiples, and equal jumps on the number line, and connect each representation to the related equation.	◇		X	
3.2.B	Represent division as equal sharing, repeated subtraction, equal jumps on the number line, and formation of equal groups of objects, and connect each representation to the related equation.	◇		X	
3.2.C	Determine products, quotients, and missing factors using the inverse relationship between multiplication and division.				X
3.2.D	Apply and explain strategies to compute multiplication facts to 10 X 10 and the related division facts.				
3.2.E	Quickly recall those multiplication facts for which one factor is 1, 2, 5, or 10 and the related division facts.	◇			
3.2.F	Solve and create word problems that match multiplication or division equations.				
3.2.G	Multiply any number from 11 through 19 by a single-digit number using the distributive property and place value concepts.				
3.2.H	Solve single- and multi-step word problems involving	◇		X	

District
Blueprint

District Exam Report

Standard/Cluster									District Average
	# Students: <u>70</u>	# Students: <u>85</u>	# Students: <u>77</u>	# Students: <u>57</u>	# Students: <u>47</u>	# Students: <u>58</u>	# Students: <u>40</u>	# Students: <u>81</u>	
Washington MA.3.3.5.A (3)	32.38%	36.86%	44.16%	30.12%	44.68%	34.77%	37.5%	36.21%	37.02%
Washington MA.3.3.2.B (3)	50%	52.55%	53.03%	44.44%	50%	60.34%	48.33%	55.35%	52.14%
Washington MA.3.3.2.C (3)	44.29%	44.71%	53.25%	40.06%	46.45%	54.31%	46.25%	47.94%	47.28%
Washington MA.3.3.2.A (3)	68.57%	71.37%	76.84%	67.25%	75.18%	78.45%	70.42%	67.9%	71.88%
Cluster 1	48.81%	51.37%	56.82%	45.47%	54.08%	56.97%	50.63%	51.85%	52.08%
Averages	48.81%	51.37%	56.82%	45.47%	54.08%	56.97%	50.63%	51.85%	52.08%

Performance Level	# Students	% Students
Met standard	110	21
Below standard	225	44
Well below standard	180	35
Total	515	100%



School Exam Report

Standard/Cluster	<u>23</u> Students	<u>23</u> Students	<u>12</u> Students	<u>Average</u>
Washington MA.3.3.5.A (3)	34.06%	34.78%	36.11%	34.77%
Washington MA.3.3.2.B (3)	64.49%	56.52%	59.72%	60.34%
Washington MA.3.3.2.C (3)	50.72%	57.25%	55.56%	54.31%
Washington MA.3.3.2.A (3)	79.71%	73.91%	84.72%	78.45%
Cluster 1	57.25%	55.62%	59.03%	56.97%
Class Average	57.25%	55.62%	59.03%	56.97%

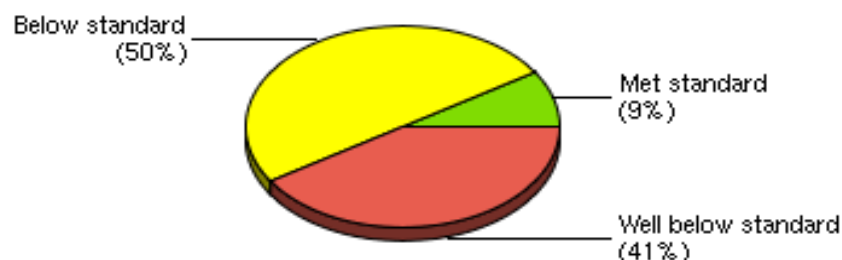
Standard/Cluster	<u>22</u> Students	<u>22</u> Students	<u>19</u> Students	<u>Average</u>
Washington MA.3.3.5.A (3)	28.79%	39.39%	29.82%	32.38%
Washington MA.3.3.2.B (3)	44.7%	71.21%	41.23%	50%
Washington MA.3.3.2.C (3)	50.76%	59.09%	21.05%	44.29%
Washington MA.3.3.2.A (3)	75.76%	78.79%	57.02%	68.57%
Cluster 1	50%	62.12%	37.28%	48.81%
Class Average	50%	62.12%	37.28%	48.81%

Performance Level	# Students	% Students
Met standard	16	28
Below standard	27	47
Well below standard	15	26
Total	58	100%



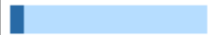

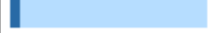
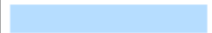

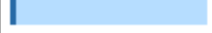

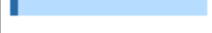

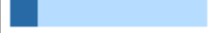
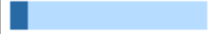

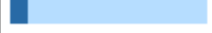
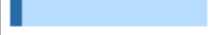
Classroom Report

Performance Level	# Students	% Students
Met standard	2	9
Below standard	11	50
Well below standard	9	41
Total	22	100%



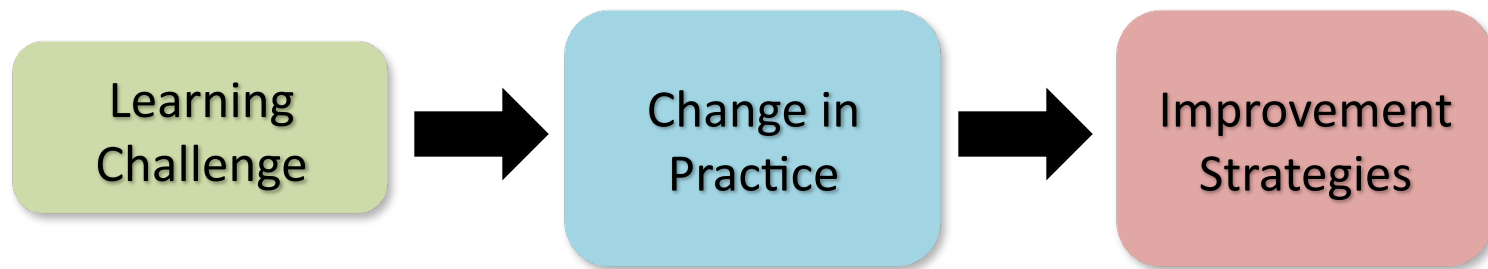
Student Name	# Points	% Points	<u>Washington</u> <u>MA.3.3.5.A (3)</u>	<u>Washington</u> <u>MA.3.3.2.B (3)</u>	<u>Washington</u> <u>MA.3.3.2.C (3)</u>	<u>Washington</u> <u>MA.3.3.2.A (3)</u>	Cluster 1
Total Items:			6	6	6	7	25
Total Points:	24	100%	6	6	6	6	24
	17	70.83%	66.67%	66.67%	50%	100%	70.83%
	9	37.5%	33.33%	33.33%	50%	33.33%	37.5%
	10	41.67%	16.67%	33.33%	33.33%	83.33%	41.67%
	5	20.83%	16.67%	0%	33.33%	33.33%	20.83%
	15	62.5%	50%	50%	83.33%	66.67%	62.5%
	13	54.17%	33.33%	66.67%	33.33%	83.33%	54.17%
	8	33.33%	33.33%	16.67%	16.67%	66.67%	33.33%
	9	37.5%	0%	50%	50%	50%	37.5%
	9	37.5%	16.67%	16.67%	33.33%	83.33%	37.5%
	13	54.17%	0%	50%	66.67%	100%	54.17%
	14	58.33%	33.33%	33.33%	66.67%	100%	58.33%
	11	45.83%	33.33%	33.33%	33.33%	83.33%	45.83%

Distractor Analysis Reports

MA.4.4.2 Fractions, decimals, and mixed numbers				
MA.4.4.2.A Represent decimals through hundredths with place value models, fraction equivalents, and the number line.				
1	A		7.3% (20)	When finding the fractional equivalent of a decimal that is located on a number line, identifies a tenth as a hundredth
	B		87.3% (240)	Correct
	C		5.1% (14)	When finding the fractional equivalent of a decimal that is located on a number line, identifies a tenth as a whole number
	NR		0.4% (1)	
2	A		89.8% (247)	Correct
	B		2.9% (8)	When given a place value model of a decimal, counts each tenth as a whole and hundredths as tenths
	C		7.3% (20)	When given a place value model of a decimal, counts each hundredth as a whole
4	A		4.4% (12)	When connecting a bar model representation to a decimal number, recorded the value of the non-shaded part rather than the shaded part
	B		81.5% (224)	Correct
	C		14.2% (39)	When connecting a bar model representation to a decimal number, considered all parts of model as wholes, recorded the number of shaded parts as the whole number and the non-shaded parts as the decimal
14	A		9.1% (25)	When shown a fraction bar model of a fraction and asked to find a decimal equivalent for a specified part, confused tenths and hundredths
	B		81.8% (225)	Correct
	C		9.1% (25)	When shown a fraction bar model of fractions and asked to find a decimal equivalent for a specified part, considered the parts as wholes rather than parts of the whole
20	A		5.8% (16)	When finding a fractional equivalent of a decimal, chose a fraction with correct denominator but incorrect numerator

Data Analysis & Decision Making Tool

- Organize the data analysis conversation



1. Express the standards-based student learning problem.
 2. Link student learning to the mathematics curriculum and instructional practice.
 3. Integrate both assessment and instructional practice data.
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Strengths

Which area of emphasis and standard had the greatest number of students *at or above* proficiency?

Content Area(s):	Standard(s):
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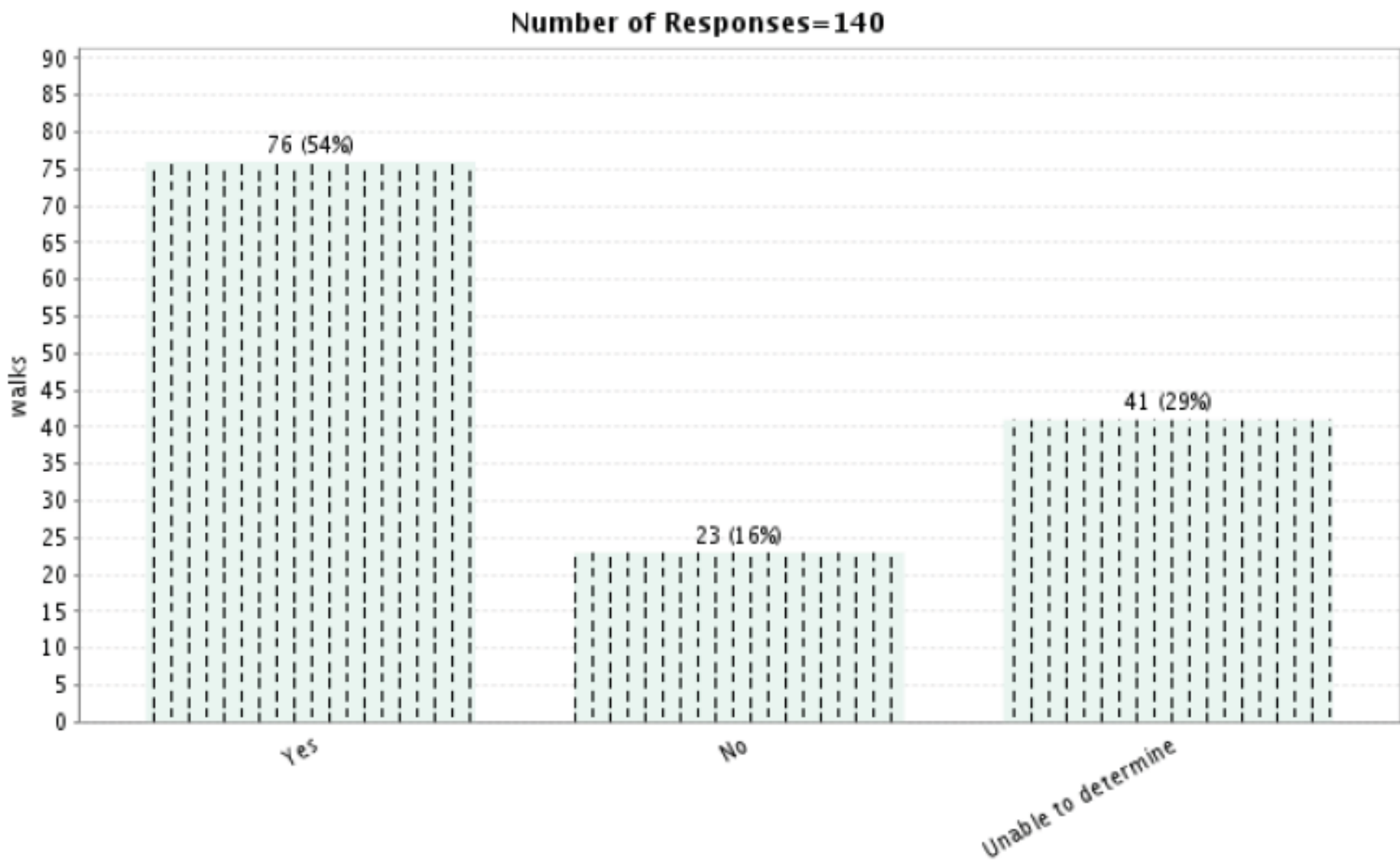
Challenges

Which content area and standard had the greatest number of students *below* proficiency?

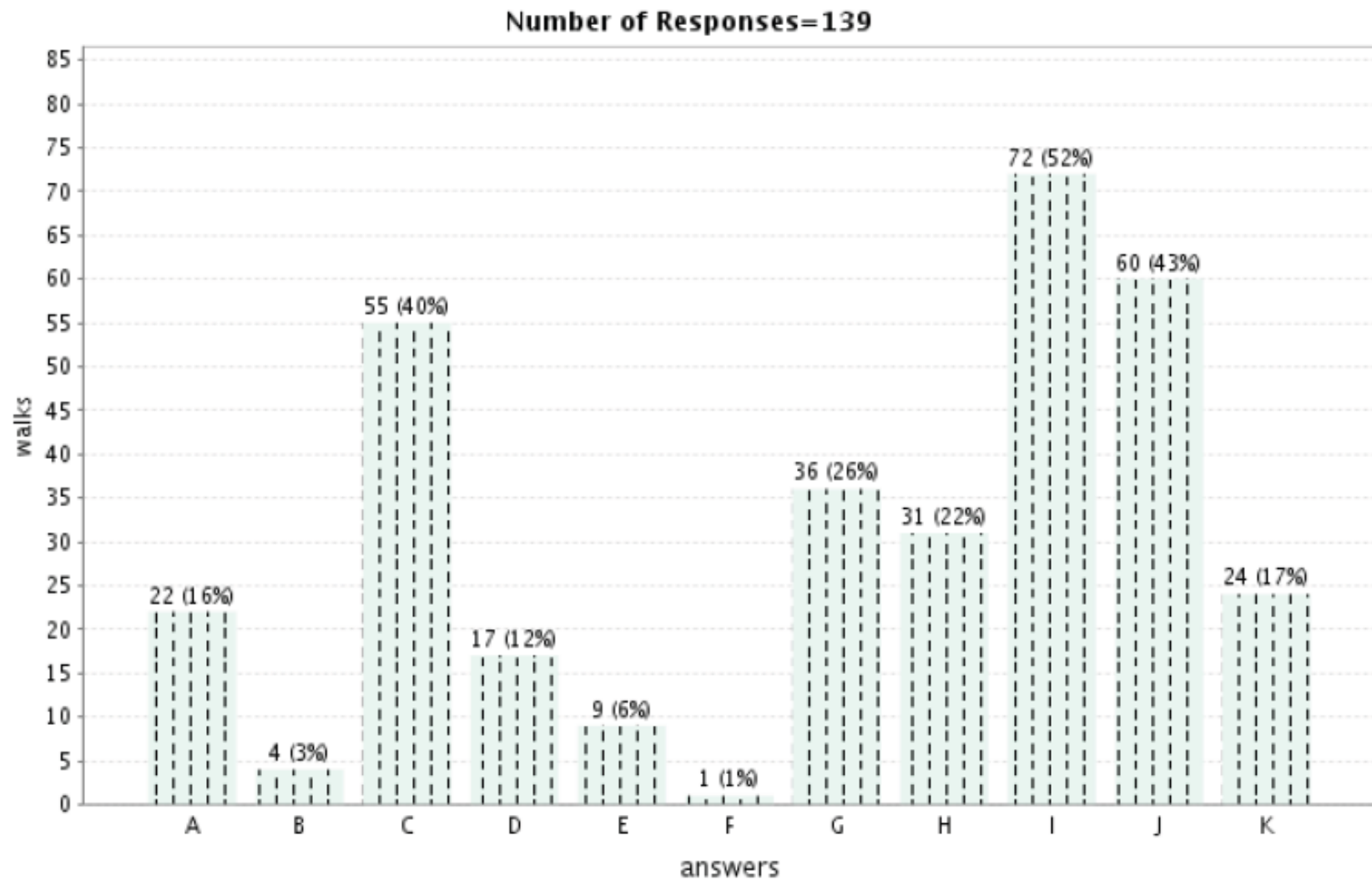
Content Area:	Standard:	Achievement Gaps: <i>Which subgroup(s) require the greatest attention?</i>
Common Misconception(s)/Error(s):		
Triangulating Data <i>What other formative data or student work provides information about student performance related to the standard?</i>		
Learner-Centered Problem <i>What is the problem of understanding or skill that underlies student performance?</i>		
Curriculum & Pacing <i>How did the instructional materials address the standard?</i> <i>Did the curriculum meet the content and the cognitive demand of the standard?</i> <i>Was ample instructional time allotted to the standard?</i>		
Instruction (CWT Data) <i>What were the primary instructional strategies and activities that were used to provide instruction for the standard?</i> <i>Were the instructional strategies and activities employed appropriate for the standard?</i>		
Assessment <i>What formative measures were used to assess the standard?</i> <i>Was student performance consistent to the benchmark assessments?</i>		

FOCUS ON CURRICULUM

1c. Determine whether the learning objective meets grade-level standards.



2a. Identify the instructional practices.



A. Hands-on experiences
B. Lecture
C. Presentation
D. Discussion
E. Testing
F. Learning centers

G. Modeling
H. Questioning
I. Providing opportunities for practice
J. Providing directions/instructions
K. Coaching

Plan for Improvement

How will the learner-centered problem be solved?

Change in Practice:

What is happening in the classroom with the curriculum, pacing, instruction, and/or assessment related to the learner-centered problem, and how does it relate to our understanding of effective practice? What practice can be changed to address the learner-centered problem? What practices related to our strengths can be helpful?

Improvement Strategies

How can we modify and/or differentiate the curriculum, pacing, instruction, and/or assessment (for this standard or the next set of standards) to solve the learner-centered problem?

Outcomes

What will change for teachers and students as a result of the strategy?

Evaluation

How will we know if the strategy is successful?

Sample 7th grade Protocol

Benchmark #2 7th grade

DSIA MATHEMATICS BENCHMARK ASSESSMENTS – Grade Level Data Analysis and Decision-Making Worksheet

Strengths

Which Performance Expectation (PE) had the greatest number of students who Met Standard?

Performance Expectation –

Challenges

Which performance expectation had the greatest number of students who did not meet the standard?

Performance Expectation –

Distractor Analysis

What are the common misconceptions or errors indicated by the distractor rationale?

Triangulating Data

What other formative data or student work provides information about student performance related to the PE?

Learner-Centered Problem

What is the problem of conceptual understanding or skill that underlies student performance?

Curriculum & Pacing

How did the instructional materials address the PE?

Did the curriculum meet the content and the cognitive demand of the PE?

Was ample instructional time allotted to the PE?

Instruction

What were the primary instructional strategies and activities that were used to provide instruction for the PE?

Were the instructional strategies and activities employed appropriate for the PE?

Assessment

What aligned formative measures were used to assess the PE?

What adjustments were made as a result?

graph to equation

- weren't using rise/run
- went over 20 but didn't x by 8
- saw where arrow ended

graph to table

- just picked scale on graph
- saw the values in table
- only one value was correct on scale
- estimate using on graph

equation to table

- weed out info & solely looked equation
- did great on this

table to equation

- got tripped up on exponents
- did ok on this

equation to graph

- x and y values were reversed

Starting w/ a graph was yuck!!

Minibenchmarks, formative for non-essential

understanding slope

move time or materials built for going from a graph to equation table

need more materials for 7.2E and 7.2F

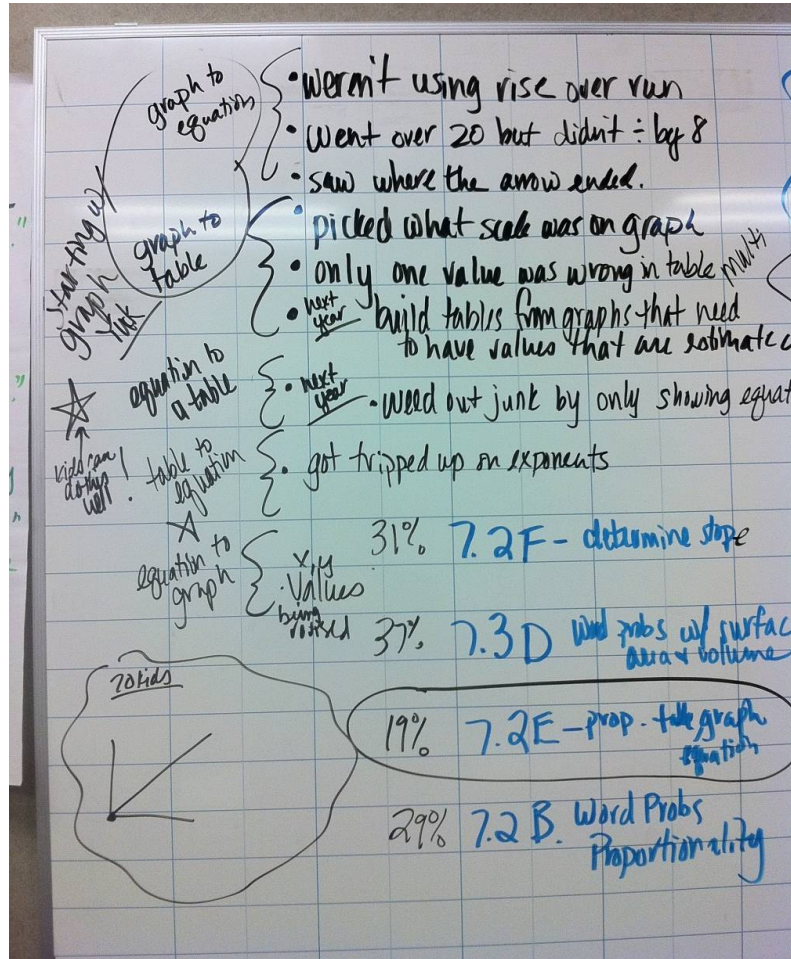
more time on 7.2E + 7.2F – maybe 3 days

(How instructionally can we help kids to understand such an easy concept.)
70 kids out of 216 did not realize this is not proportionate

minibenchmarks

system for this would be helpful

This is hard to remember because some PE's were covered before Xmas break.



Texted image to my principal of analysis of 7th grade Benchmark



Benchmark Growth Goal Plan 2010-2011

Actual Benchmark 1 Score	How many percentage points do you want to improve by?	What is your Benchmark 2 target score?
Example... 45%	10%	At least a 55%
Your score...	Your points to improve by ..	Your target score for Benchmark 2...

My plan to achieve my Benchmark 2 "Growth Goal"

- 1.
- 2.
- 3.

Benchmark #1 Comparison

6 th Grade	% of Students Proficient in 2009	% of Students Proficient in 2010	% Growth
Mult. & Div. Fractions	13%	48%	35%
Mult. & Div. Decimals	13%	51%	38%
Word Problems	27%	38%	11%
Process Standard	No Data	7%	NA

Carrizales/Schlegel 2011

Organized System of Assessments

- State Summative Assessment
- Benchmark assessments 3 times a year
- Mini-benchmarks for every benchmark standard taught
- Common formative assessments for every standard taught
- SMALL WINS for students and teachers

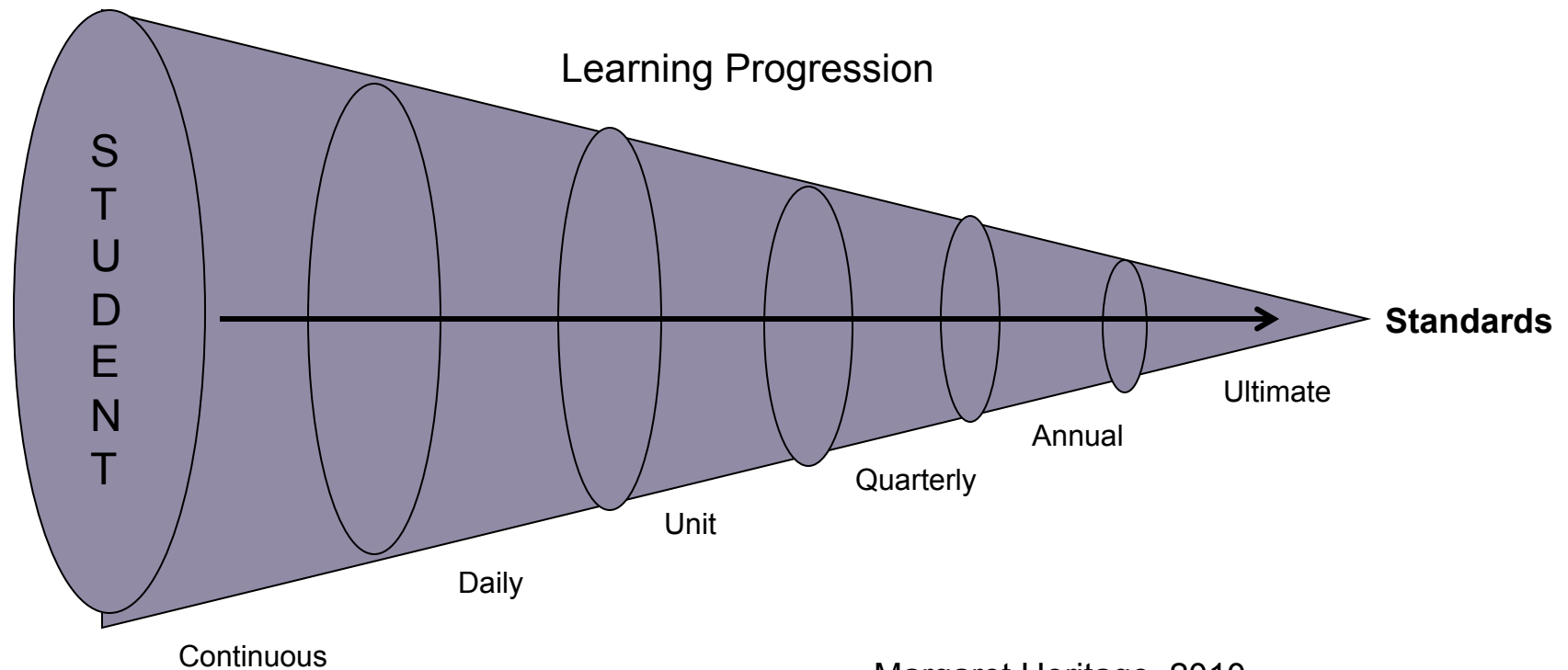
Carrizales/Schlegel 2011

Organized System of Assessments

- State Summative Assessment
- Benchmark assessments 3 times a year
- Mini-benchmarks for every benchmark standard taught
- Common formative assessments for every standard taught
- SMALL WINS for students and teachers

Carrizales/Schlegel 2011

Coherent Classroom Learning System



Margaret Heritage, 2010

Learnings

- Highlighted areas where curriculum materials were not aligned to standards and the way they are assessed (content & rigor)
 - Helped monitor the implementation of the district alignment and pacing guides
 - Deepened conversation and understanding of mathematics vocabulary and standards
 - Increased focus and accountability for teaching grade level standards to *all* students
 - Generated a desire for more and better formative assessment practices
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Outcomes*

- Deeper understanding of mathematics content in state standards
- Deeper understanding of common student misconceptions tied to standards
- Collaborative inquiry & collective responsibility for student learning
- Increased formative assessment practices

**when the MBA is fully implemented*

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