

Evaluation of AUSD Math Initiative, SIM, & IBD

March 19, 2013

AUSD Math Initiative

Components:

1. Coaching : 7 district wide coaches supporting K-Algebra 1 through collaborative individual and grade level / department teacher meetings, feedback, pacing guide and assessment facilitation, demonstration lessons, parent university nights and benchmark analysis
2. Teacher Professional Development including June Elementary and August Secondary Training Days, afterschool PD and two Saturday Session workshops; future Common Core sessions
3. K-12 administrator session on Common Core Math Standards to be presented May 21, 2013
4. Summer math programs for struggling students:
 - 4th graders entering 5th grade (week-long sessions)
 - 5th graders entering 6th grade (week-long sessions)
 - Five Math Achievement Academies lasting 4 weeks for students seeking extra support before entering 7th Grade, Algebra 1, Geometry, Algebra 2

Coaching

2008-2009: Fifteen 4th and 5th grade teachers who attended the SIMI 2 Summer Institute were supported by one coach; no middle school coach; part-time high school coach

2009-2010: Thirty 4th and 5th grade teachers who attended the SIMI 2 Summer Institute were supported by two coaches; 1 middle school and 1 high school coach

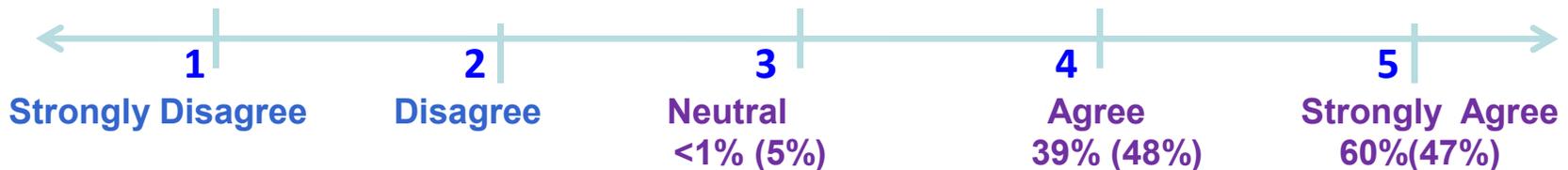
2010-2011: ALL AUSD 3rd, 4th, and 5th grade teachers are supported by 4.5 math coaches; 1 middle school and 1 high school coach

2011-12: ALL AUSD 3rd, 4th, and 5th grade teachers as well as 2nd grade teachers at five sites are supported by 4 elementary math coaches; K-1 teachers supported by 1 elementary school coach; 1 middle school and 1 high school coach

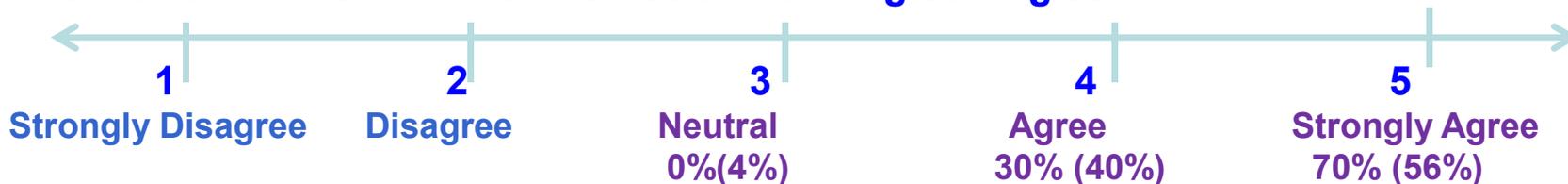
Component 2: Professional Development

➤ On the evaluations, teachers responded on a scale of 1-5 (1 being strongly disagree and 5 being strongly agree) to the following:

I deepened and/or refreshed my mathematics content knowledge.



I learned and/or reviewed some useful teaching strategies.



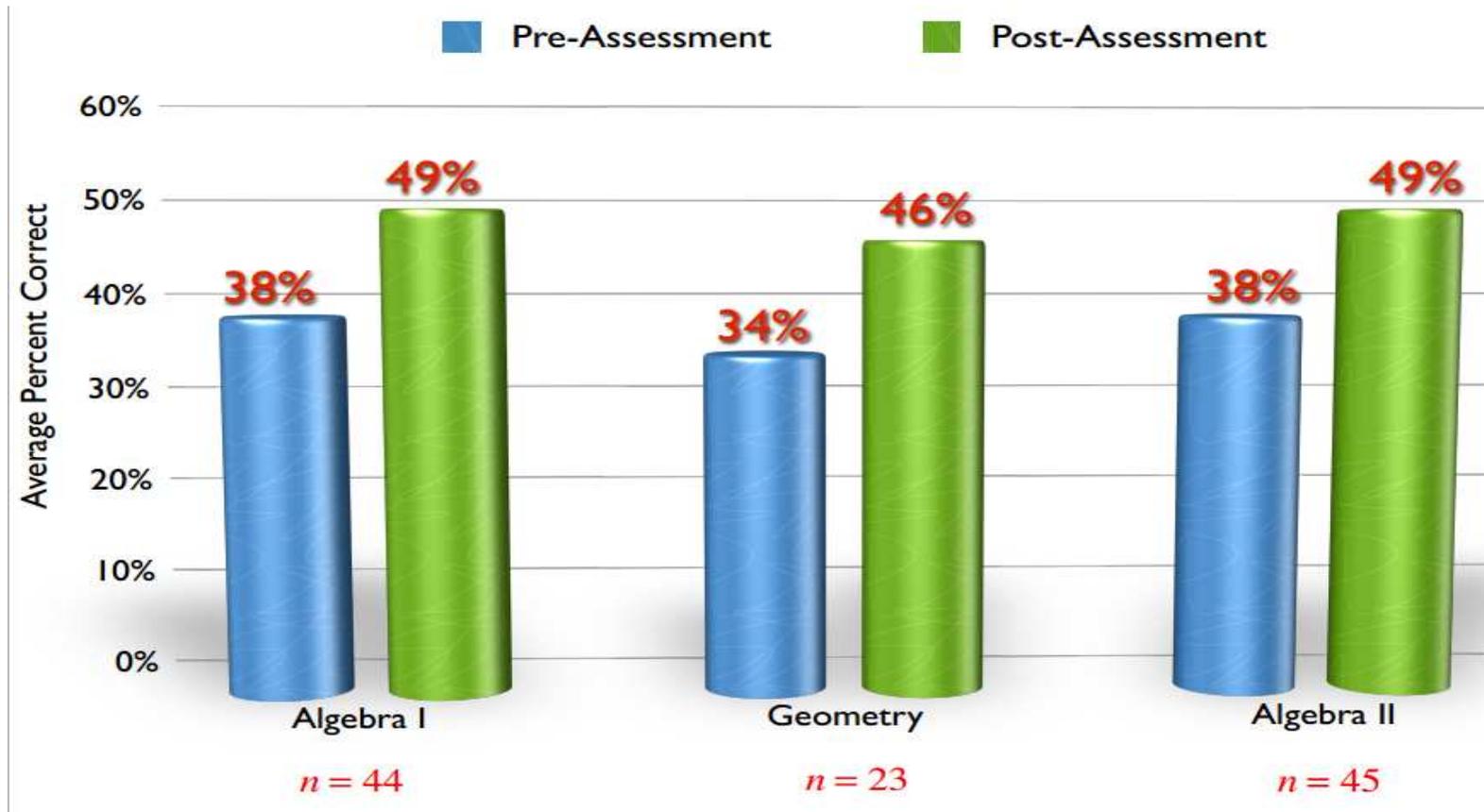
Last year's responses are in parentheses.

Component 2: Professional Development

Response from evaluations about:

1. What aspects of the content and/or pedagogy were most valuable?
 - The several different ways to approach a math problem to try and use methods that teach kids to think, not just an algorithm.
 - Going over the Common Core
 - Opportunity to collaborate with colleagues
2. What was helpful or worked well for you?
 - Many different strategies and clear use of syntax
 - I really appreciated how everyone was doing warm-ups!
 - Expert peers with math coaches and teachers teaching, not a publisher
 - Time to answer questions even when they were below the level of the instructional target
 - There was lots of great modeling of problem solving, setting up notebooks, proper syntax and how to ask the right questions
3. Any other suggestions?
 - I think this training should be mandatory like staff PD before school begins so that all are using these strategies and teaching the same methods through grade levels
 - I would like more strategies for Pre-Calc and up
 - Afternoon needs to be more structured to get more done

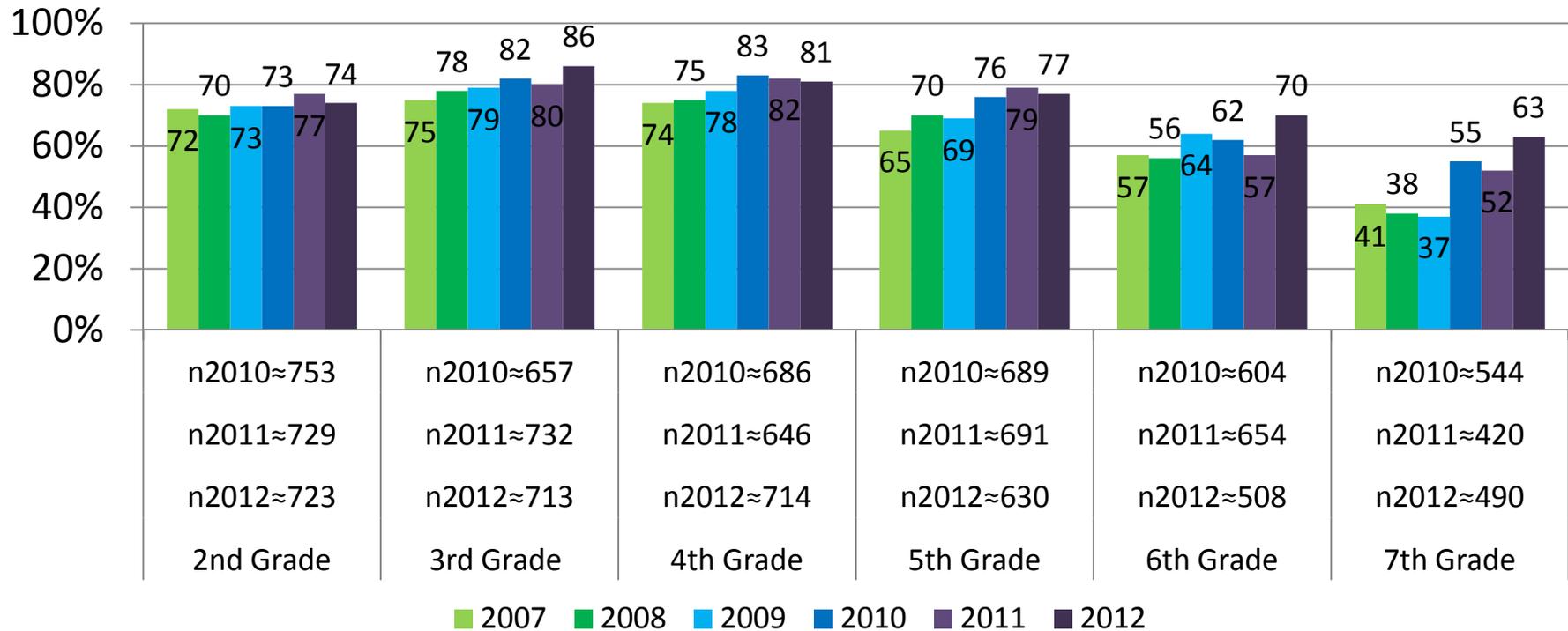
Component 4: AUSD Summer 2012 Math Achievement Academy



Key Point: The participating students' average percentage growth from Pre- to Post-Assessment was 26%. MAA is provided at no cost to AUSD. AUSD does provide administrative support, and the program is held on the Summer School site.

CST Math 2007-2012: 2nd – 7th Grade

Growth by Grade Level over 6 years



Key Point: The AUSD Math Initiative provides coaching and professional development. This last year showed strong growth in 3rd, 6th, and 7th grades. About half of AUSD 2nd grade teachers receive coaching this year.

CST Growth for 3rd Grade

Comparing CST performance level over two years

CST Math Scaled 4/20/2011	CST Math Scaled 4/20/2012					Totals
	Far Below Basic	Below Basic	Basic	Proficient	Advanced	
Advanced			4 0.6 %	36 5.7 %	278 43.8 %	318 50.2 %
Proficient		1 0.2 %	17 2.7 %	56 8.8 %	121 19.1 %	195 30.8 %
Basic	1 0.2 %	9 1.4 %	15 2.4 %	29 4.6 %	19 3.0 %	73 11.5 %
Below Basic	1 0.2 %	5 0.8 %	16 2.5 %	14 2.2 %	3 0.5 %	39 6.2 %
Far Below Basic	1 0.2 %	3 0.5 %	4 0.6 %	1 0.2 %		9 1.4 %
Totals	3 0.5 %	18 2.8 %	56 8.8 %	136 21.5 %	421 66.4 %	634 100.0 %

	41 Students increased more than one level	6.5 %
	169 Students increased one level	26.7 %
	63 Students decreased one level	9.9 %
	6 Students decreased more than one level	0.9 %
	355 Students scored the same level	56.0 %
	634 Total students	100.0 %

Roster: Roster: 10/6/2011 8:15:00 AM
 Student Set: Grade is equal to 03 and Student Is Current is equal to Yes

Key Point: 3rd grade math proficiency is one of our 10 Steps to Success. 3rd grade students made significant growth over the previous year's performance.

Summary

- The Math Initiative model emphasizes deepening of mathematics content understanding for teachers and students while incorporating multiple methods for problem solving and articulating best practices across grade levels and schools.
- AUSD students, teachers and administrators continue to benefit from our ongoing focus on mathematics. This work has improved awareness of math grade level standards, helped teachers with effective and innovative instructional techniques, and supported a culture of math collaboration and success.
- The heart of the AUSD math initiative is its practitioner-based coaching model that encourages active collaboration between teachers while providing structures to guide the conversation about implementing best practices in mathematics.

SIM: Content Enhancement

Systemic shifts in 2012-13

- Professional development in the “big four” routines (FRAME, Unit Organizer, Concept Mastery, and Course Organizer) has been centralized to maximize our resources.
 - Sites are not replicating each other’s work
 - Each training offered only once
- 48 teachers have been trained as of March 7 (final training is in May)
- Site-based SIM Professional Developers continue to provide follow-up coaching to participating teachers from their sites
- Encinal High School has provided additional training in three additional routines (Concept Comparison, Question Exploration, and Listening and Note Taking)

SIM: Fusion

Secondary Literacy Intervention

- Five new Fusion teachers trained at the middle school level
- All Fusion (eight) teachers receive coaching throughout the year
- Class size for Fusion was reduced
 - Allows teachers to provide more meaningful feedback to students; this is critical to the development of strategic readers
 - Progress monitoring is more manageable
- McGraw-Hill published materials now include online professional development modules which reduce time teachers are out of the classroom for professional development

SIM: Fusion

Teacher feedback on observed student benefits

- Students often tell me how they use the Fusion strategies in their content area classes. For example, I had a student tell me she used the vocabulary process to uncover the meaning of a word in her English class. Another student told me she was able to use the summarization strategy to read and understand difficult text in English class. Before she said she would read the text several times and have no idea what it meant. A seventh grade student of mine who struggles in school came over just last week to tell me he linked to prior knowledge in Science class and was better able to comprehend the content.
- Students are using the CLUE (Prediction Strategy) steps to help them slow down, chunk the reading into sections, and examine each chunk of the reading for better comprehension.
- Fusion helps students understand the value of reading and how it connects to their futures. It helps them understand that reading is not just a means to getting a good grade in an English class but that it is a key skill necessary to succeeding in school and beyond as well as being an essential part of passing the CAHSEE.
- Because it is sequential and progressive, it allows them to see their own progress, challenge themselves, and even be competitive with peers. Almost all regular attendees see gains in their CST's and huge improvements in their fluency rates.

SIM: Learning Strategies

Special Education/Academic Strategies Pilot

- Focusing on better utilizing the Special Education Academic Strategies class
 - Providing students with a “strategic toolbox” that will serve them in all of their classes
 - Working to build academic independence
- Initial cohort of six Special Ed teachers trained in Learning Strategies
 - Six days of professional development
 - Lesson Study
 - One-on-one coaching
- Decisions about what strategies to teach were data-based
 - All taught: Vocabulary process and strategy, Sentence Writing strategy, Listening and Note Taking
 - One teacher taught the Word Identification strategy (based on student need)

SIM: Learning Strategies

How students are benefitting (in teachers' words)

- We have been able to develop and implement a strategic plan to target the skill deficits of students with IEPs and both equip and motivate them to better understand and complete the work they are doing in their general education classes.
- I am seeing an improvement I didn't expect— student buy-in, student ownership of learning, and achievement. I am also seeing students take more responsibility for doing homework at home.
- My students have generalized the vocabulary study strategy (LINCS) and are often using it to study science and core vocabulary. They are excited to share with me when they use it.
- I think it is great for the students who have a clear need in an area where the strategy is being taught. However, my classes weren't designed around this need and as a result some students are doing work and are learning a strategy for an area that they do not have a weakness in.
- These are great tools. How can we get more kids to experience these strategies?

SIM: Professional Developers

Focus on Instructional Coaching

- Shift in focus away from delivering professional development to providing instructional coaching
- All SIM PDs are trained as instructional coaches
- Alternate models we implemented
 - Asynchronous Instructional Rounds (LMS)
 - Japanese Lesson Study (WMS, EHS, IHS)
 - Instructional Rounds (all)
 - Use of protocols to address instructional/systemic issues
 - Student work protocols
- Traditional one-on-one coaching, is still available as well

SIM: Professional Developers

Professional Developer Feedback

- I appreciate the efforts the PD community is making regarding expanding SIM-style lesson studies. Collegial, instructional rounds-style observations and feedback regarding the practice of Content Enhancement seem like a great next step after workshops.
- The feedback I've gotten when we did protocols was really helpful, and I look forward to trying more protocols with members of the staff.
- The work we did around critical conversations has been also helpful and remains in the back of my mind every time I have a difficult conversation with a colleague.

Inquiry By Design Background Info

- IBD curriculum is an ELA curriculum program based on the concepts of
 - student apprenticeship
 - academic conversation
 - language-rich classroom environments
- 2009-10: IBD pilot program at Chipman and Lincoln
- 2010-11: Rollout of IBD at all 3 middle schools
- 2011-12: Elementary school pilot, 9th grade project rollout
- 2012-13: 4th-5th grade rollout, 10th grade rollout
- In addition, all IBD units are Common Core aligned

IBD: Elementary School

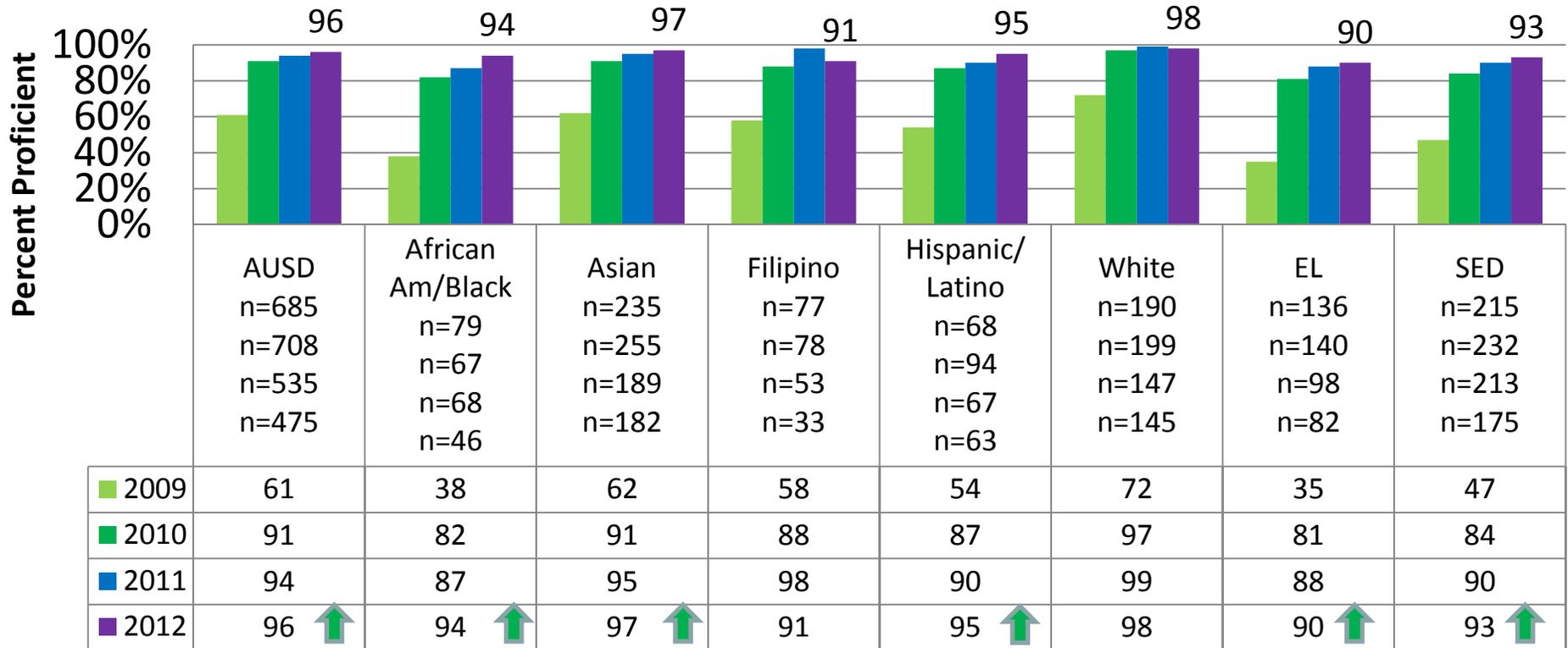
- Expansion of last year's pilot program
- 40+ elementary teachers attended IBD training this year
- Teachers received training in three units of study
- 4 teachers hosted Peer Learning Labs (at Franklin, Haight, Ruby Bridges, and Paden)
- Paden had entire team participate in trainings: 4th and 5th grade teachers, ELD, Title 1, and paraprofessionals
- Group of pilot teachers did extension work—creating their own inquiry-based units
- Elementary teachers were active participants in on-site coaching: model lessons, co-teaching, observations, and lesson planning

IBD: Middle School

- This is the third full year of IBD work at the middle school level
- Every middle school teacher in the district has had IBD training
- 20 middle school teachers attended IBD training this year
- Middle school trainings have focused on:
 - Introducing new teachers to IBD
 - Refreshers on units for those teaching new grades
 - Student work studies
 - Teaching developed inquiry-based units
- Wood Middle School has participated in weekly collaboration with a focus on student data and feedback
- Teachers at Lincoln have hosted Admin and Peer Learning Labs and participated in on-site coaching

7th Grade Writing Proficiency

CST 7th Writing Assessment 2010, 2011 & 2012



Key Point: 7th grade writing proficiency continues to increase. Our lowest performing subgroup this year was the EL subgroup which reached 90%. The increase in writing scores corresponds to the use of IBD at middle school.

IBD: High School

- This is the second full year of IBD work at the high school level
- 24 high school teachers attended IBD trainings this year from 4 sites: AHS, EHS, IHS, and ASTI
- All 9th and 10th grade ELA teachers have participated in IBD training
- 9th grade built on the work they started last year: focus on non-fiction and student work study
- 10th grade teachers received training for three units of study
- Teachers at EHS, AHS, and IHS participated in IBD coaching days in November
- At least one Peer Learning Lab is scheduled for EHS in April

IBD: Teacher Feedback

- “The lessons are facilitated by the teacher but are driven by students. Their interpretations, reactions, and responses to difficult texts enable students to become teachers—learning and sharing with one another.”
- “I had one of the best literary discussions of my 27 year career with my 6th graders regarding one of the IBD stories.”
- “IBD has helped my students accept that different ideas and viewpoints are valid, but that it’s necessary to support our ideas in the text.”
- “Teachers are lamenting about how much time out of the classroom is required, and I think it makes IBD less desirable for some.”
- “This is what I love about IBD: it self-differentiates across my very wide instructional range, and every student feels (and is) successful in growing skills and engaging.”

IBD: Teacher Feedback

- “I’ve learned that as teachers we need to identify student needs and collaboratively work to improve.”
- “The March Peer Learning Lab was by far the best professional development I have been to! I have about ten ideas that I can bring back to my classroom and implement right away.”
- “My students felt confident and well prepared for the state writing assessment; many remarked, ‘This is easy!’”
- “IBD has given me the gift of time to grapple with curriculum and teaching philosophy that is cutting edge and well-aligned with the Common Core Literacy Standards.”
- “Until we get buy-in from every teacher, we’re not going to see the complete benefits of this program.”