



San Diego Unified
SCHOOL DISTRICT

Prop. S and Z ICOC
Construction Subcommittee
July 11, 2013, Exhibit 3.4

i21 Interactive Classroom Year 4 4th Quarter

**Proposition S Update
July 2013**



i21 Interactive Classroom

Prop S Update



- SDUSD is the 2nd largest district in California
 - Approximately 133,182 students in pre-school through grade 12
 - 108 elementary schools, 9 K-8 schools, 24 traditional middle schools, 26 high schools, 44 charter schools, and 14 atypical/ alternative schools
 - Diverse student population - more than 15 different ethnic groups speaking over 60 languages and dialects
 - Free / Reduced lunch – 61.1%



i21 Interactive Classroom Prop S Update



The voter-approved bond mandates that we
...create 21st century learning environments...



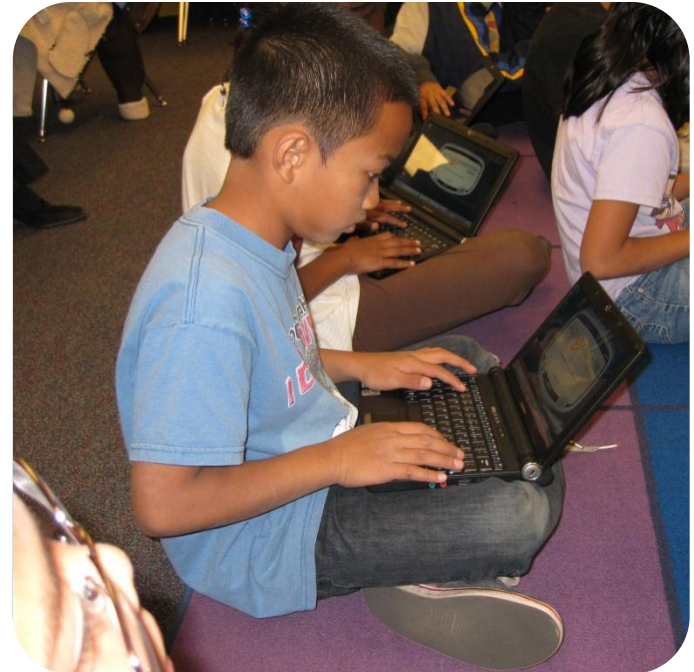
Bond Initiative

Prop S Update



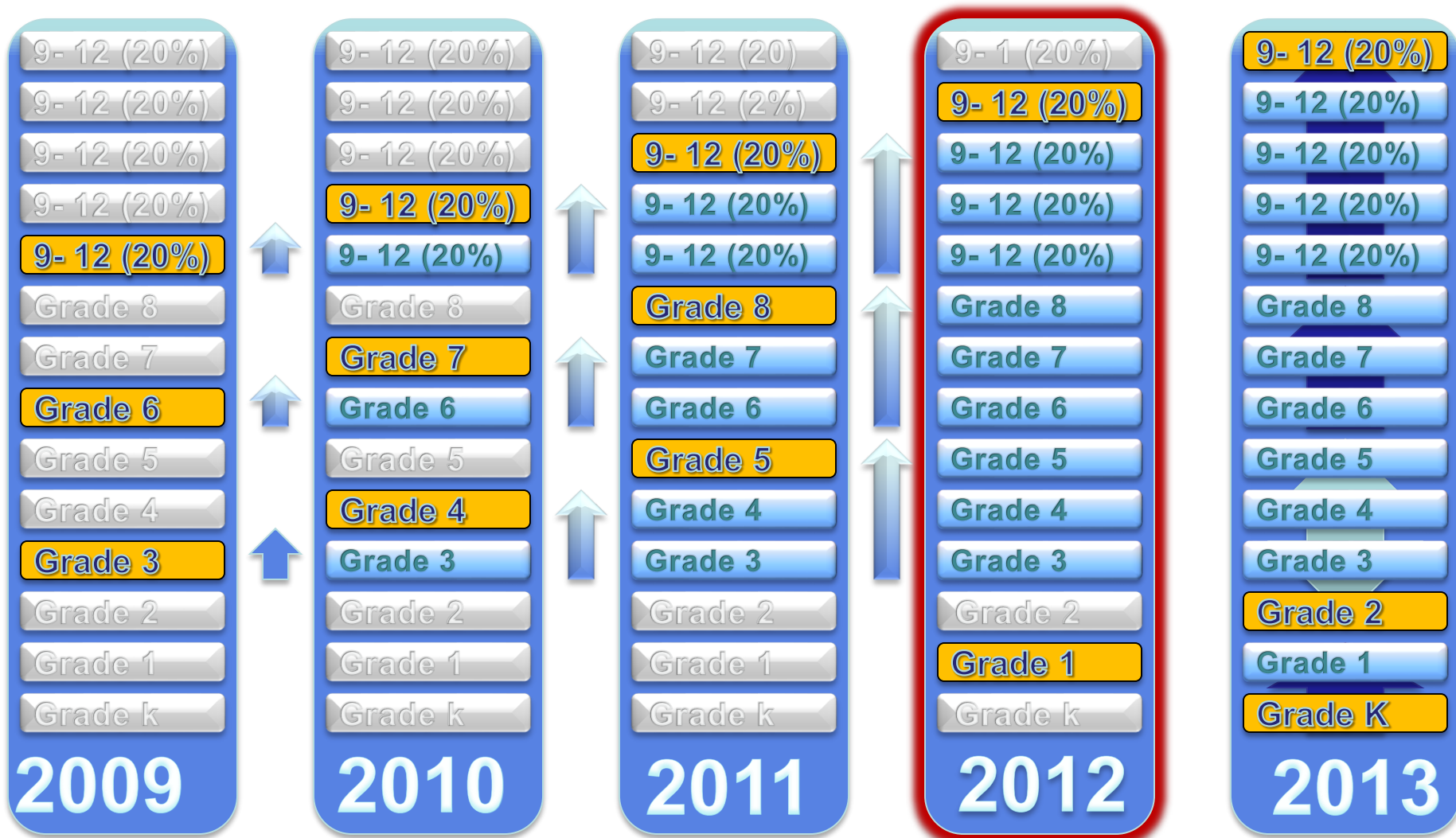
... Provide up-to-date classroom and instructional technology required for 21st century student learning and teaching...

- *Equip Classrooms*
- *Upgrade Technology*
- *Campus-Wide Wireless*
- *Network Upgrades*



Changing the Learning Landscape

i21 Initiative 5-Year Plan



i21 Goals

Prop S Update



- Transformation of the learning environment
 - Quality technology-based teaching and learning tools
- Shift in the model for delivering instruction
 - Engaging, student-centered classrooms
- Equitable learning opportunities for all students
 - Allow all students to become expert learners



Changing the Learning Landscape

i21 Initiative



...It's an opportunity to change the way we do things based on new tools, resources, and focusing on 21st-century skills that students need to be able to survive in today's world...



i21 Interactive Classroom

Prop S Update



i21 classroom initiative aligns with...

- U. S. Department of Ed. Technology Goals
- District 2020 Vision
- Goals for Students Achievement GSA2
- Board Goals
- LEA Plans Component



Goals for Student Achievement

Prop S Update



- English Language Arts 2.3.1
- Math 2.3.2
- Science 2.3.3
- Social Studies 2.3.4
- Student will communicate in at least two languages 2.4
- Student explore, understand, and value fine arts 2.5
- **Students will effectively use technology to access, communicate and apply knowledge and to foster creativity 2.6**



Anytime-Anywhere
Exciting
Transformation
Easy
Connected
Kids
Creative
Online
Visuals
Interactive
Flipcharts
Data
Relevant
ALL-Students
Technology
Fun
Collaborative
Engagement
Active-Learning
Access
24/7
Classroom
Broadband
3G
Differentiated
Voting
Change
Student
Choice
Achievement
Growth
Integration
Interesting
Learning
Netbooks
Real-World
Teachers
Current
Learning-Style
4G



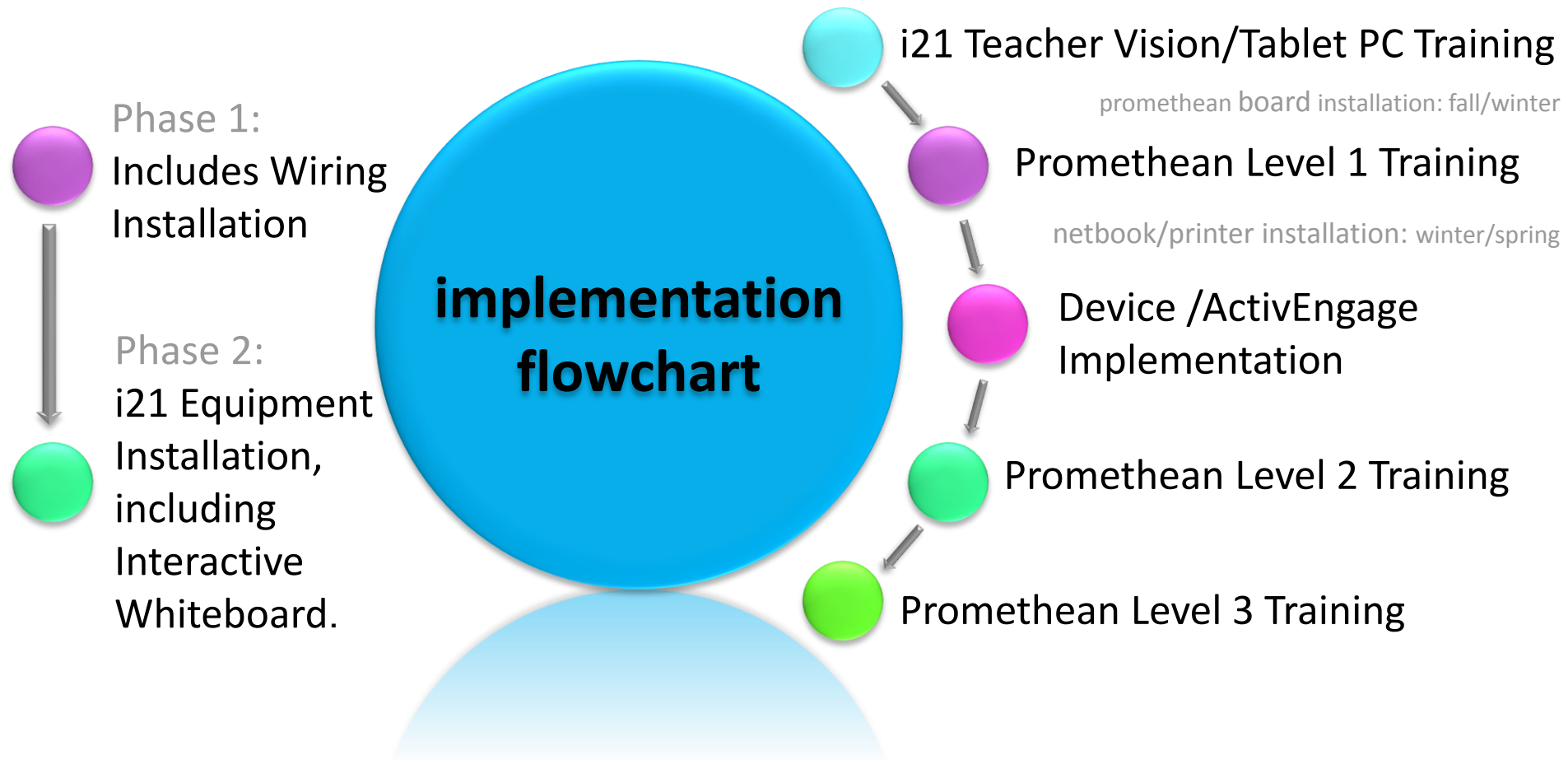
San Diego Unified
SCHOOL DISTRICT

Year 4 Update



Physical Installation Sequence

Professional Development Sequence



i21 Interactive Classroom Update

Year 4 Implementation Totals

Prop S Update



Promethean boards installed **897**

Teacher tablets distributed **897**

Student devices to be distributed **26,124**

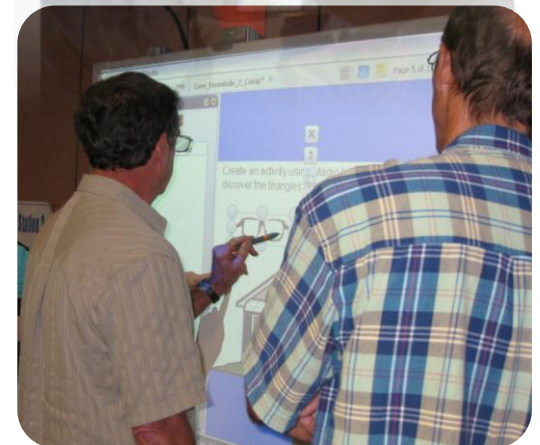
Teachers trained:

classroom teachers plus **950**

Special Ed support

Promethean Levels 1, 2 and 3

Approximately 80% of core curriculum
classrooms to be completed in Y1, Y2, Y3
and Y4



Year 4 Implementation

Prop S Update



- Year 4 student devices delivery will be postponed to the Fall of 2013 as a result of the student device purchases being shifted from Prop S to Prop Z. Prop Z bonds have just been sold.
- Training for student devices for Year 4 teachers will also be postponed until Fall 2013
 - Intro to iPad / Netbook 1:1 environment
 - Instructional Vision and Integration
 - Classroom Follow-up

Year 4 Implementation

Prop S Update



Impact of delayed student device rollout on the i21 program:

- Impact on classroom implementation for teachers and students
- Impact on department staff
- Impact on professional development delivery model
- Impact on professional development budget

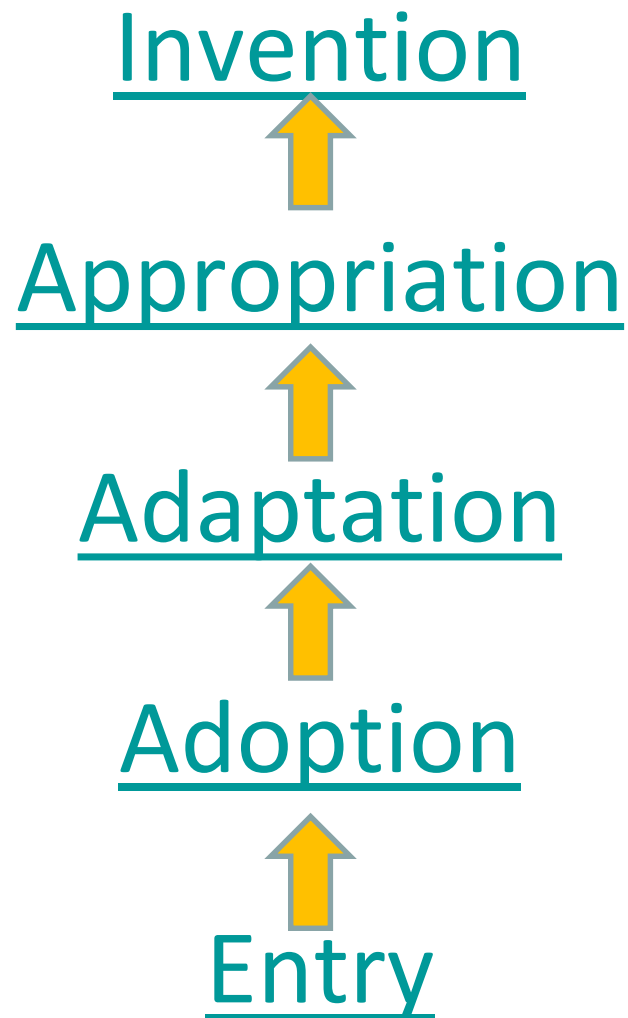
Changing the Learning Landscape

i21 Professional Development



Evolution of Instruction

Prop S Update

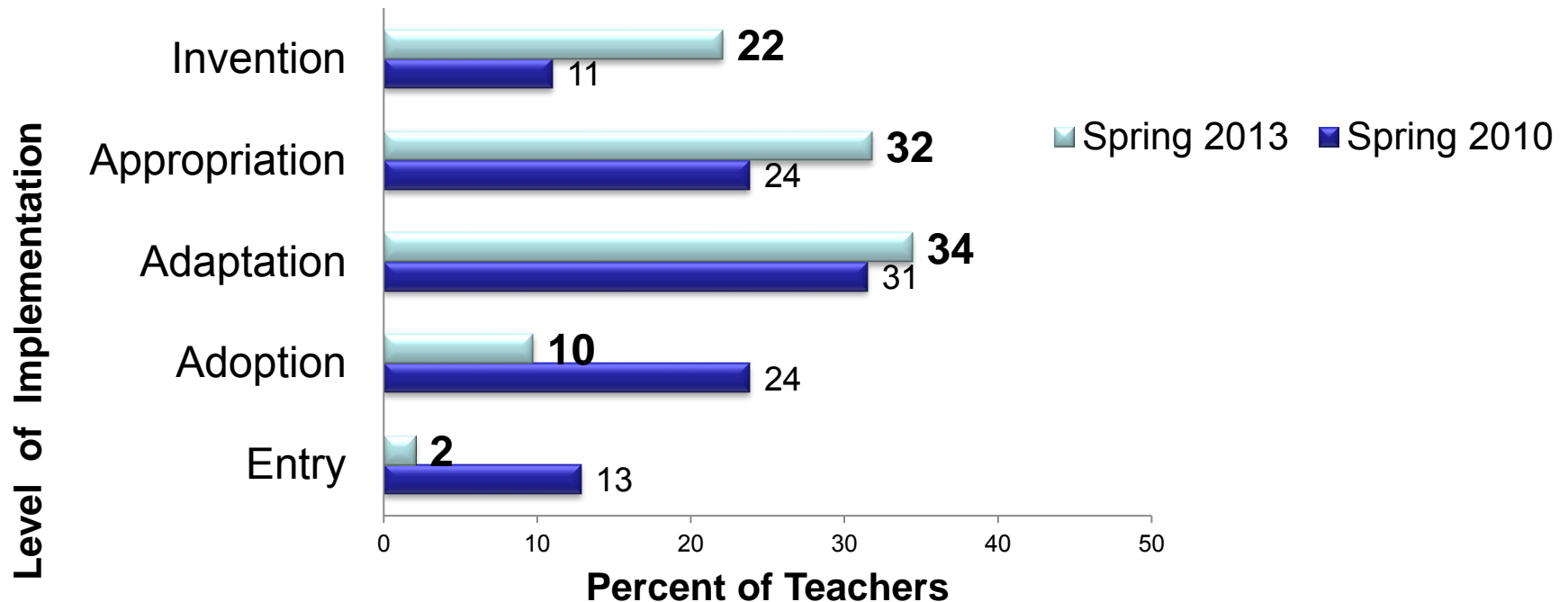


Continuing Growth - Y 1 Teachers

Spring 2010 to 2013



Evolution in Instruction

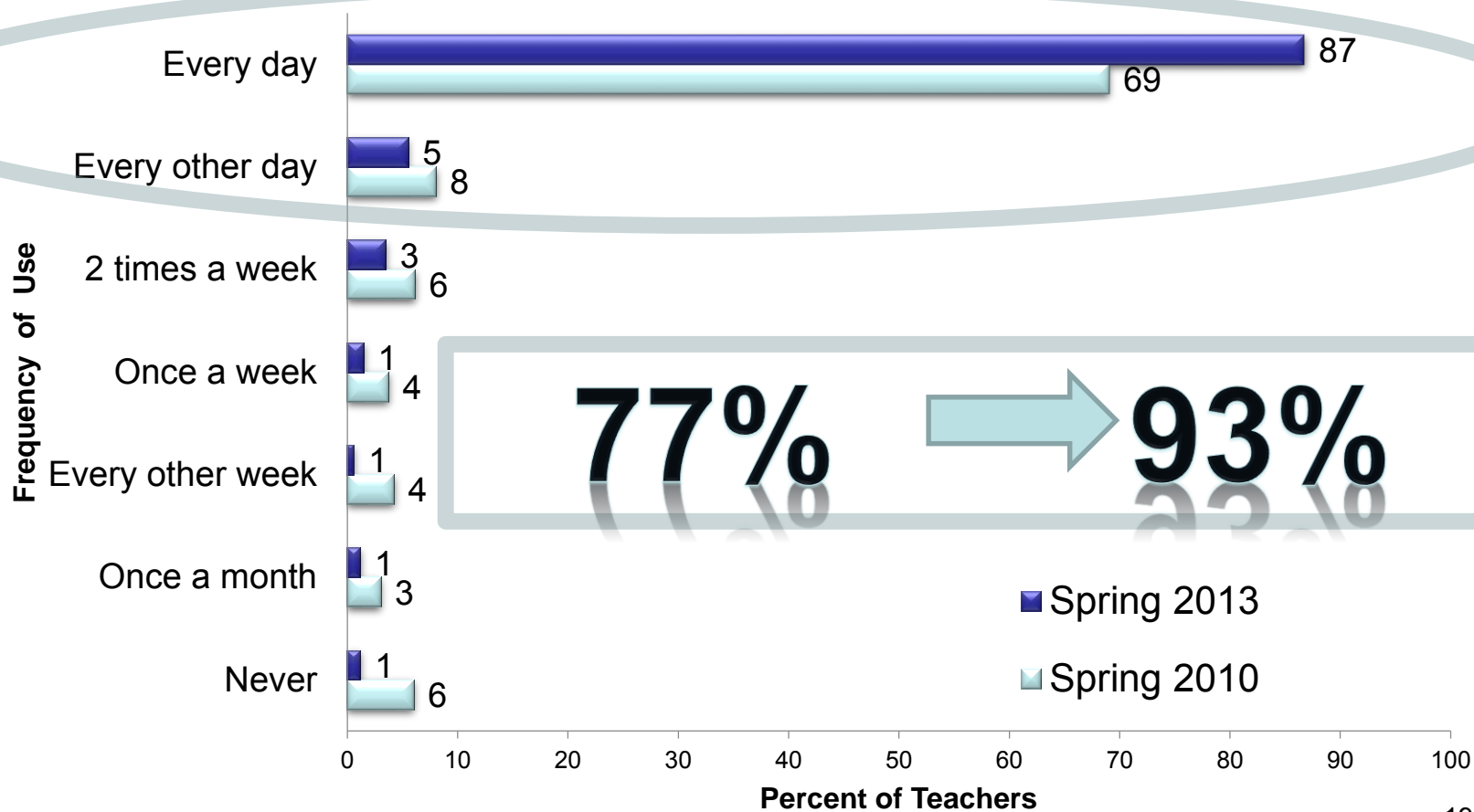


Continuing Growth - Y 1 Teachers

Spring 2010 to 2013



How often do you use the Promethean board as a teaching tool?

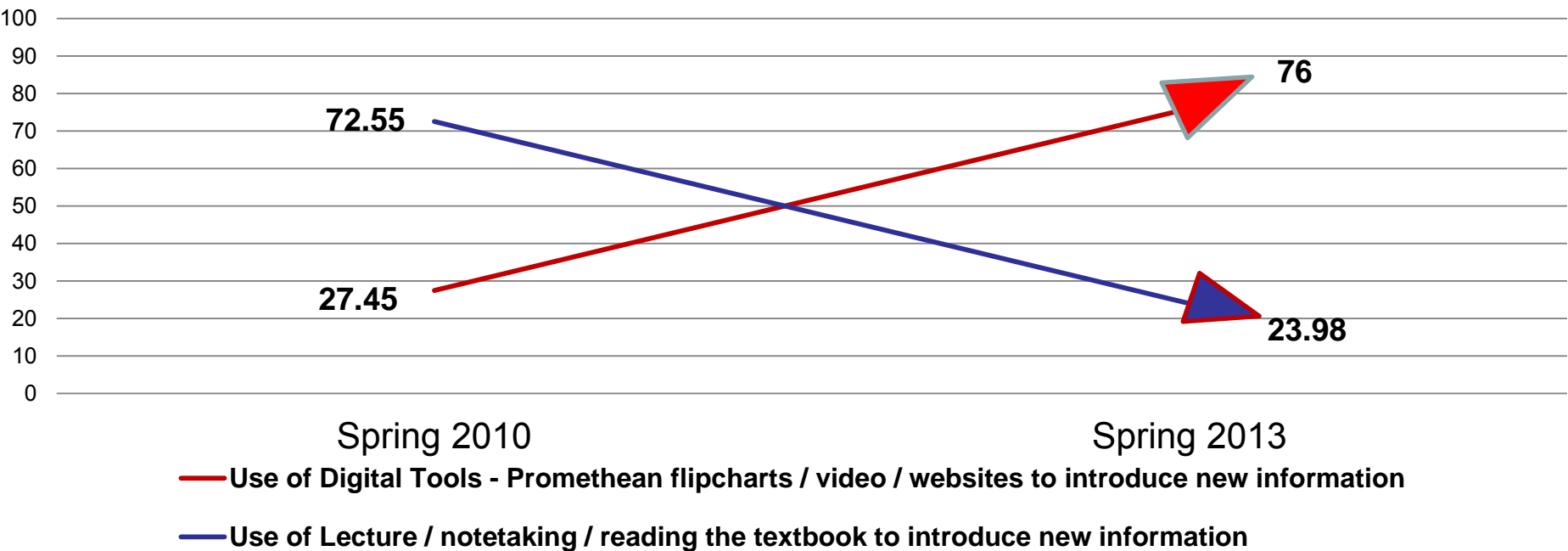


Changing the Learning Landscape

Year 1 Teachers – Spring 2013

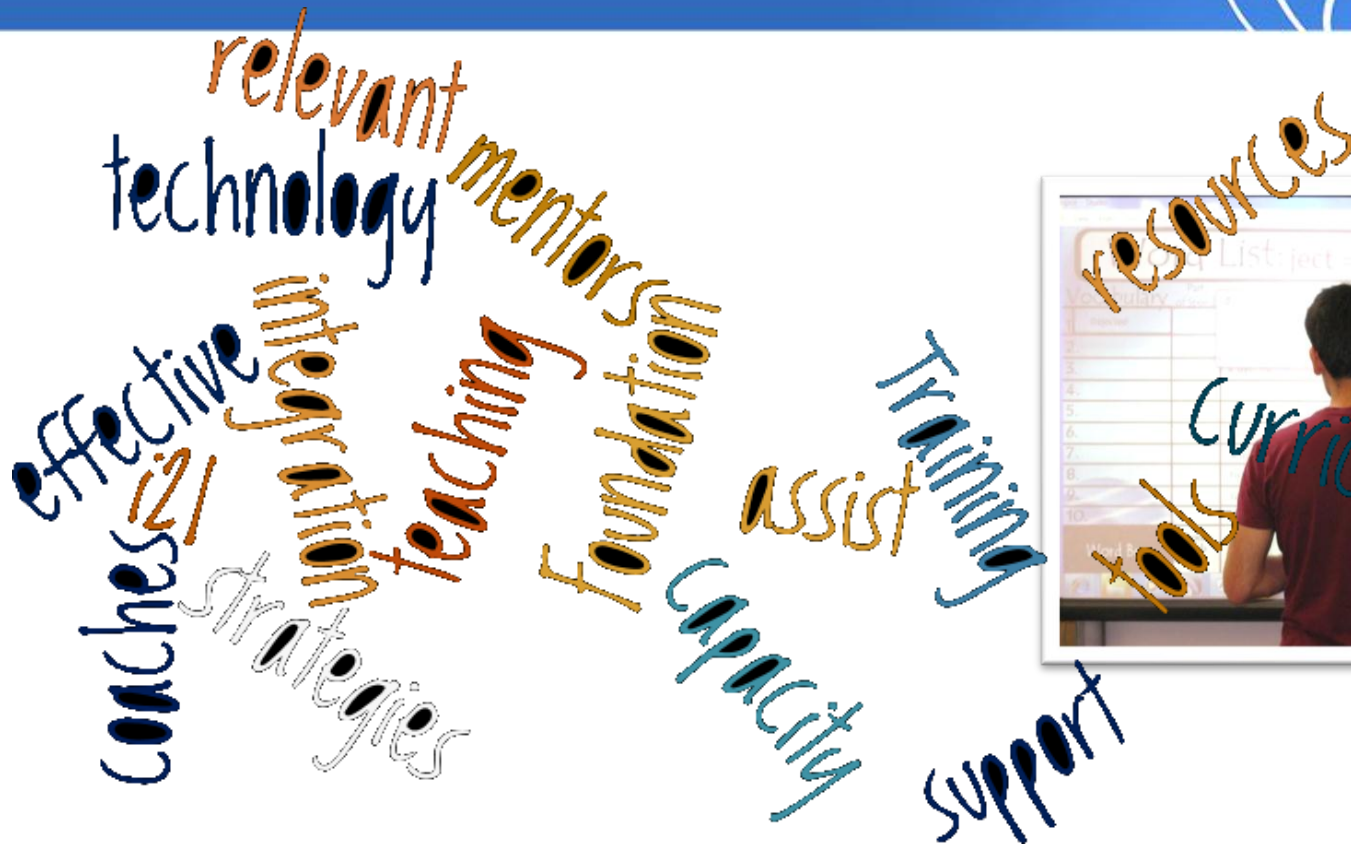


Shift in Instructional Practice Year 1 Teachers Pre and Post Survey



Building Capacity

i21 Digital Teacher Leaders



Key teachers who are academic leaders at their individual schools will serve as i21 Digital Teacher Leaders to build site capacity.

Building Site Capacity

Role of i21 Digital Teacher Leaders



- Collaborate with i21 teachers and Ed Tech Resource Teachers
- Develop strategies to promote instructional use of i21 technology
- Function as an onsite resource for all other i21 teachers in their school.
- Be their site's information conduit for the latest technology updates, training on new software programs and other digital initiatives.
- Develop flipcharts to add to the district's curriculum warehouse.
- Work with the site administrators to identify further needs for training
- Attend monthly meetings/trainings with IT/Ed Tech Teams to receive the latest information or participate in advanced training.
- Serve in this capacity for the 2013-14 school year.





San Diego Unified
SCHOOL DISTRICT

Learning On the GO

**1:1 Laptop Program
2012-13**



LOGO

Taking i21 to the Next Level





...SDUSD's **Learning-on-the-Go**

initiative, education doesn't stop at the schoolyard gate or the library door. Through the LOGO pilot's off-campus wireless Internet connectivity, students now have **access** to digital textbooks and other **innovative** resources that allow them to learn in a **real-world** context, inside the classroom and beyond...





6th grade at:

- Knox MS
- Lewis MS
- Longfellow
- Mann MS
- Dana MS
- Pershing MS
- Wilson MS
- Montgomery MS

7th and 8th at Innovation MS

6th, 7th and 8th at Millennial Tech MS



What students receive:

- Netbook with broadband access
- Netbook bag with student ID
- Charger
- Filtered internet
- Electronic textbooks
- Software programs including those for word processing, video editing, creating flipcharts, and electronic notebooks. All are compatible with District infrastructure and supported by the IT Dept.





Site Support:

- Ongoing professional development
- i21 workshops
 - “Flipping” the classroom
 - Classroom visitations
 - Collaboration days
- Intro to TSS
- Designated Tech Resource Teacher
- Administrator Support





82% of students would prefer to do assignments at home on a computer.

86% of students said they learn better when teachers incorporate technology such as videos, interactive websites, and online games into their instruction.

38% of students do not have internet at home



- **91%** of parents said that they prefer that their child use a school-issued computer that includes software used at school, as well as filtered internet with built-in safeguards.
- **95%** of parents said that if given the choice they would like this program to continue next year.



“Having wireless internet is so great because my child can do her homework/school work any where and that is so important especially because she is back and forth between family because I am a single mom and work full time...”

“His organizational skills, desire to work, and his interest in his education has also vastly improved as a result of this netbook. This program is invaluable to him and also to students who would not otherwise have this opportunity.”

“Fantastic program. Has helped us tremendously as we do not have a computer or internet at home. Now I check grades and my child has access to everything she needs to be successful.”

The LOGO Experience

Innovation Middle School



What does our 1:1 Mobile Learning look like?

- Personal learning devices
- Extended learning: 24/7 access
- Focused instructional delivery
- Creativity and collaboration
- GSA 2.6 put into practice
- Responsibilities and Acceptable Use
- Student voice, choice, and project-based learning



The LOGO Experience

Innovation Middle School



Impact of our 1:1 Mobile Learning...

- **99%** teacher retention over 4 years
- API gain of **43 points**, 767 in 2010 to 810 in 2011
(highest growth for any middle school in SDUSD)
- Increased accountability for students and adults alike
- Creativity and collaboration efforts for students and adults
- Ability to differentiate instruction with “just in time” support
- Presentations/projects to authentic audiences motivates students to achieve higher levels of quality





District-wide Achievement

Meeting the needs of today's learners



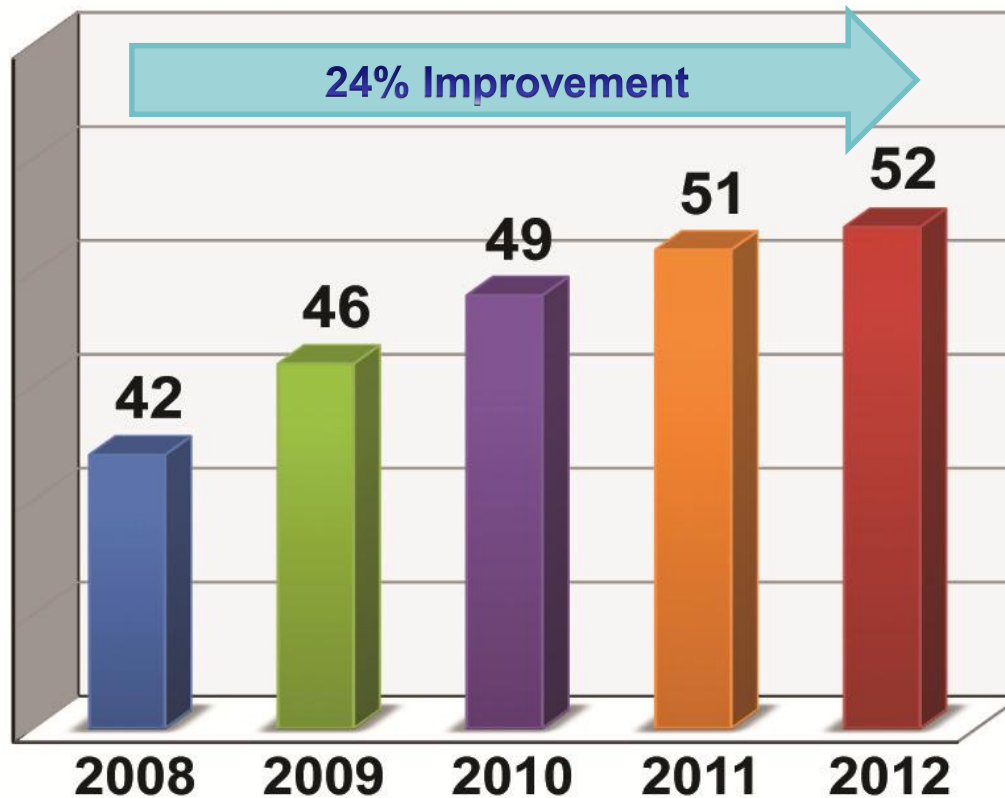
Changing the Learning Landscape

Student Achievement



California Standards Test Results, 2008-2012

Mathematics



I21 Implementation

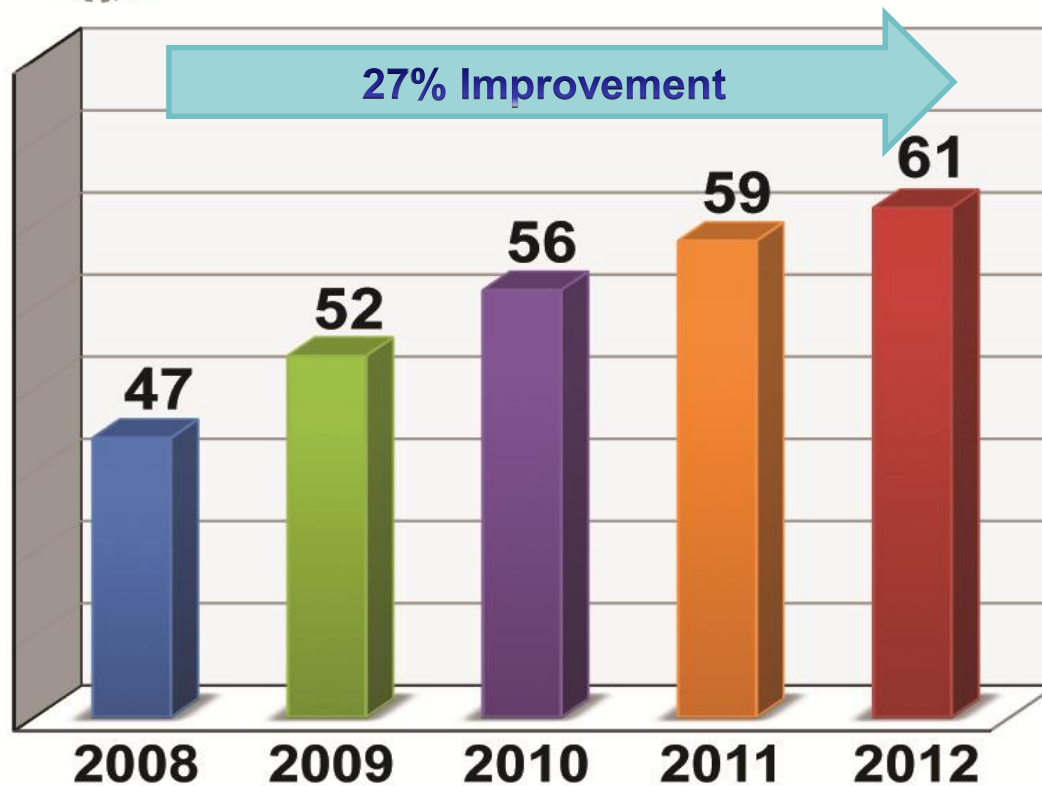
Changing the Learning Landscape

Student Achievement



California Standards Test Results, 2008-2012

English Language Arts



I21 Implementation

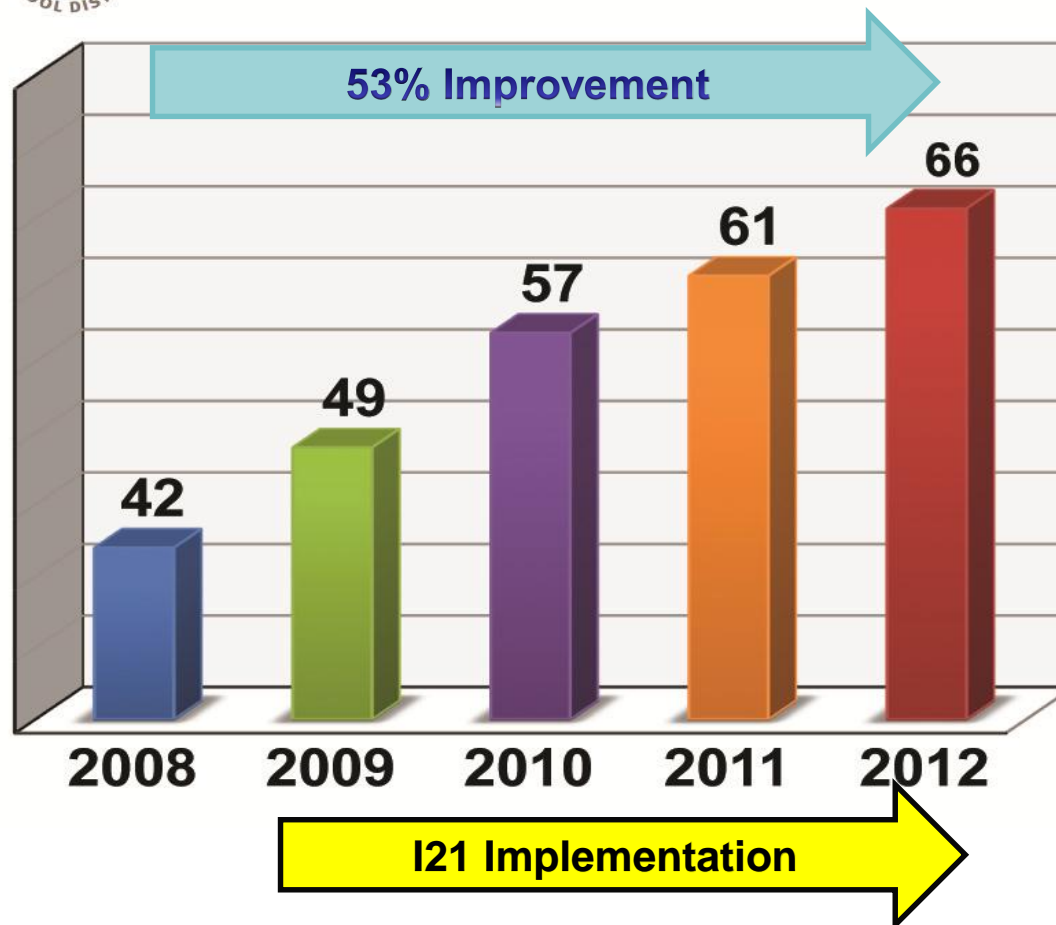
Changing the Learning Landscape

Student Achievement



California Standards Test Results, 2008-2012

Science

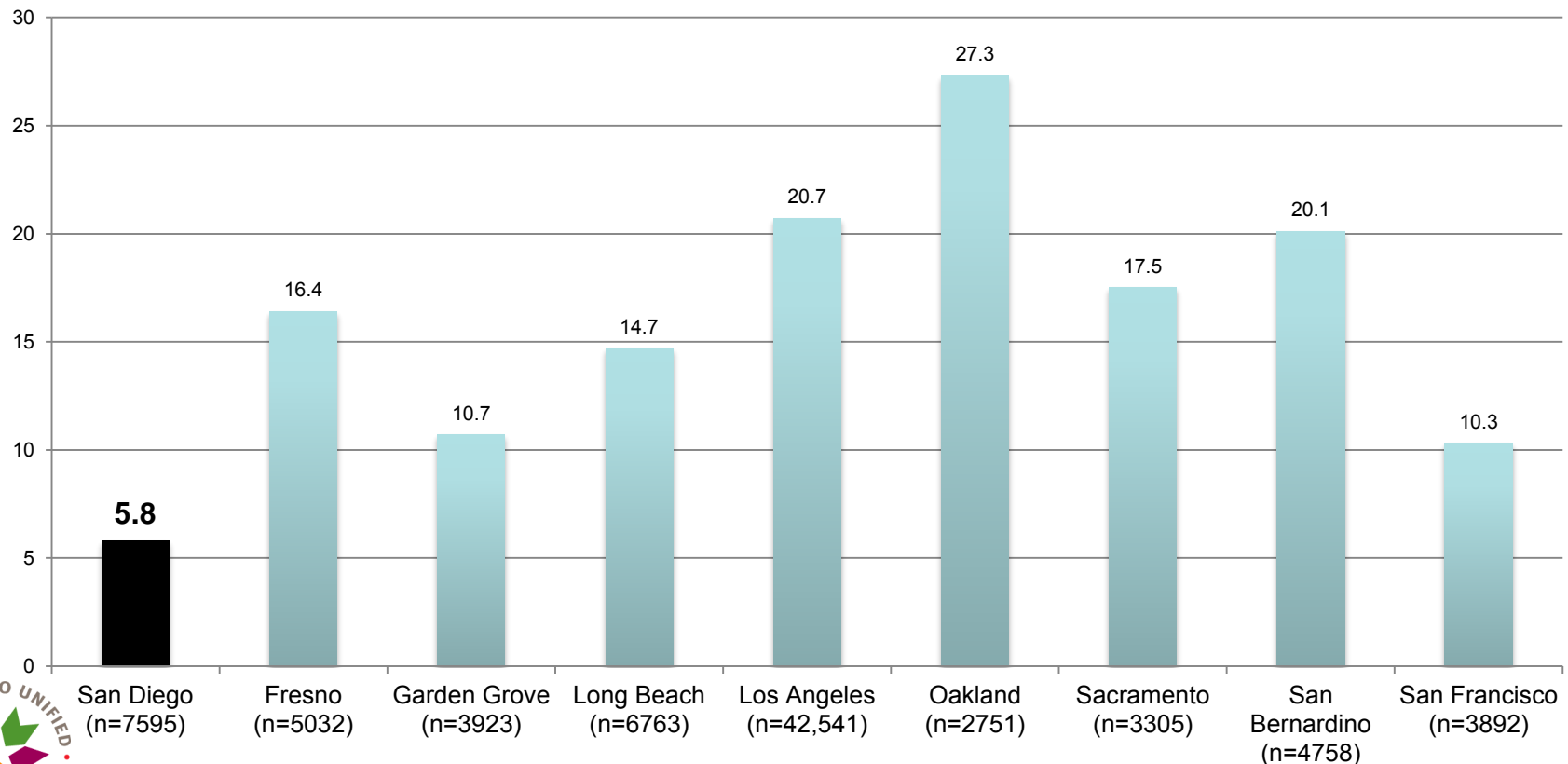


Changing the Learning Landscape

Student Drop Out Rate

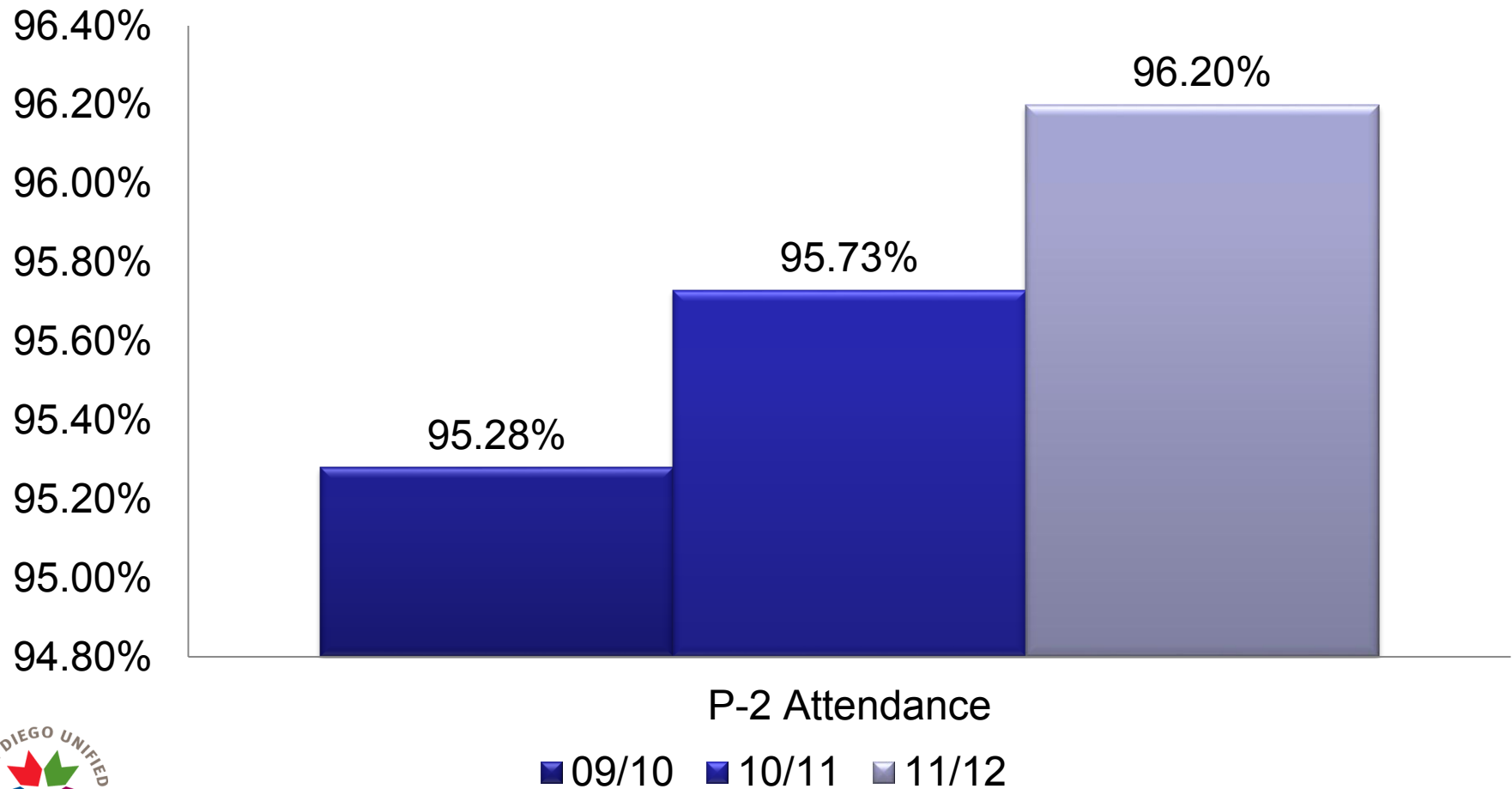


2011 Cohort Dropout Rate



Changing the Learning Landscape

Student Attendance



Classroom of the Future's 2013 Innovation in Education Award



SDUSD's i21 wins 2013 IMPACT Award!



Based on Inspiration, Innovation and Achievement



Broad Foundation Award 2013 Award Nominee



The Broad Prize for Urban Education is an annual \$1million award -- the largest education prize in the country--that honors urban school districts that demonstrate the greatest overall performance and improvement in student achievement while reducing achievement gaps among poor and minority students.

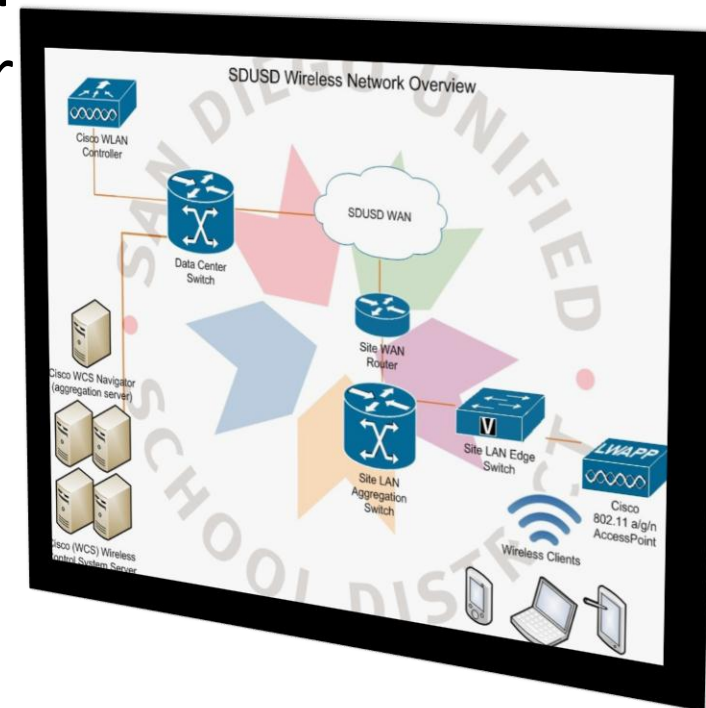


Infrastructure Upgrades and Equipment

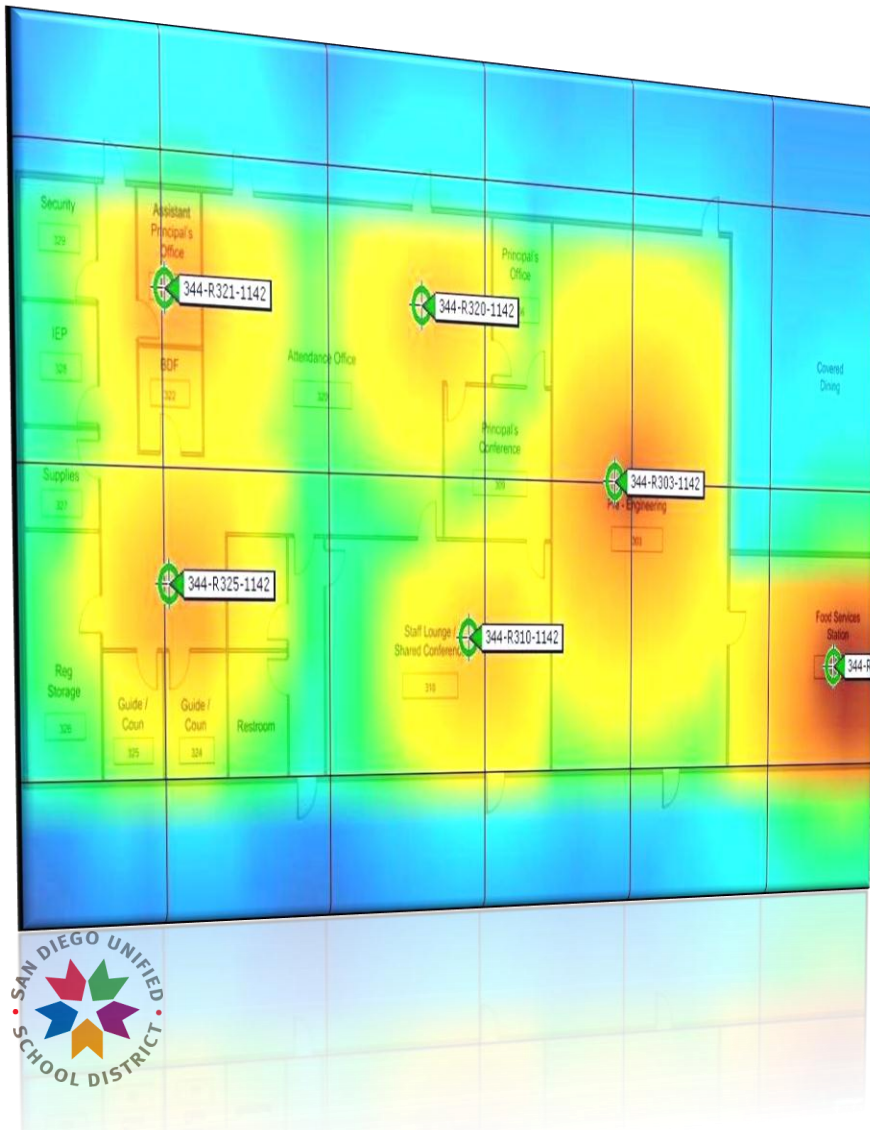
Campus-wide Wireless Upgrades

Wide Area Network

- Approximately 11,000 dual band Cisco 802.11a/g/n access points will be deployed for indoor and outdoor client access over 5 years
- As of July 2013
 - 7740 access points installed
 - 4,500 rooms with i21WIRELESS
 - Over 80 schools are now campus wide



Campus-wide Wireless Wide Area Network Upgrade



Centralizing controllers into the Data Center cuts down on service visits to remote sites..

Cisco Wireless Control System (WCS) with Cisco Mobility Services Engine allows staff to easily track client device location and monitor critical network performance statistics

i21 Interactive Classroom Equipment

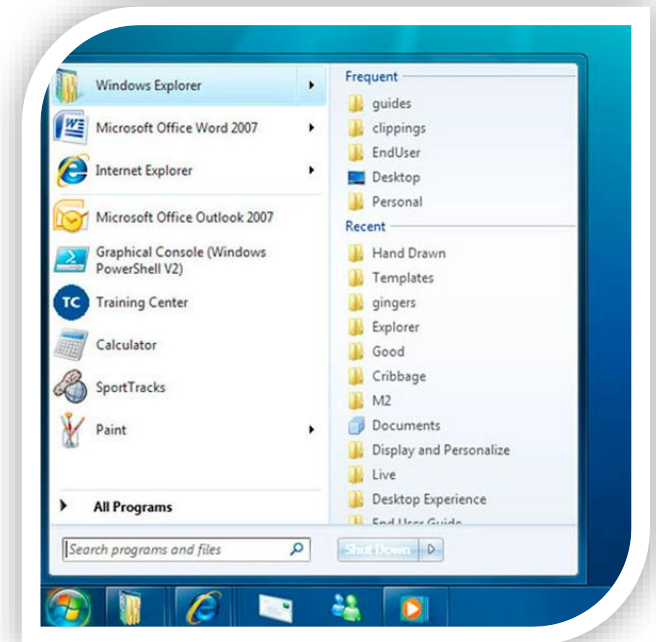


Teacher Tablet

Software for Teachers



- ActivInspire Version 1.6.50464
- ActivEngage 1.3.0
- Document camera software
- Firefox 10.0.6
- Internet Explorer 8.0.7601.17514
- Lanschool Student 7.4.2.2
- Kurzweil 3000 Version 11
- Microsoft One Note 2010
- Microsoft Office 2010
- Google Earth 6.0.1.2032
- Geogebra 3.2.46.0



iPads managed via the web using the Lightspeed Mobile Device Manager (MDM)

Student Netbook

Software for Students



ActivInspire – 1.6.50464

ActivEngage – 1.3.0

Firefox – 10.0.6

Internet Explorer

8.0.7601.17514

Lanschool Student 7.4.2.2

Kurzweil 3000 Version 11

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Student iPad

Software for Students



Apple Built-in Apps
District image on the iPads
includes:

ActivEngage – 1.3.1
Destiny Quest – 1.5.1
Dragon Dictation – 2.0.24
GoodReader – 3.18.6
Google Earth – 7.0.0
iBooks – 3.0
iTunes U – 1.3
Keynote – 1.6.2
KMZ Loader – 1.0
Numbers – 1.6.2
Pages – 1.6.2
WebDav Nav+ - 1.6.2





i21 sustainability estimates
after 5-year rollout is complete

I21 Sustainability

Netbooks/iPad after 5 years



Student computing device in a 1:1 model					
Grade Level	Quantity	Estimated Price	Estimated Annual Repair Costs	4 Year Replacement Cycle Annual Costs	
6-12	55820	\$350.00		\$4,884,250.00	
3-5	26690	\$300.00		\$2,001,750.00	
Sub Total	82510			\$6,886,000.00	
Yearly Netbook Incidental Repair-Loss 3%	2475	\$350.00	\$866,355.00		
(Student computing device replacement is based on a 4 year replacement cycle. The optimal cycle is 3 years but the national average ranges 4-5 years)					
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I21 Sustainability

Teacher Tablet after 5 years



Teacher Computer Replacement					
	Quantity	Estimated Price	Estimated Annual Repair Costs	4 Year Replacement Cycle Annual Costs	
Number of Teacher Tablets in Core Rooms	5800	\$1,000.00		\$1,450,000.00	
Yearly Tablet Incidental Repair 2%	116	\$500.00	\$58,000.00		

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I21 Sustainability

Promethean Board after 5 years



Promethean Boards					
	Quantity	Estimated Price	Estimated Annual Repair Costs	4 Year Replacement Cycle Annual Costs	Annual Support Agreement After Year 5 of Prop S
Promethean Maintenance Agreement					\$850,000.00
Bulb Replacement every 4 years	5800	\$250.00		\$362,500.00	
Yearly Bulb Incidental Replacement 2%	116		\$29,000.00		
(Promethean board life expectancy is estimated to be 18-20 years with proper maintenance)					
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I21 Sustainability

After the 5 year rollout is complete



i21 Sustainability Estimates After the 5 Year Rollout is Complete					
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District Annual Cost			953,355.00	\$8,698,500.00	\$850,000.00
\$10,501,855.00					

* Prior to i21, the district spent on average annually \$10,680,375 on computers



District Road Map



2009-2011



Professional development journey begins.

Building i21 site capacity.

Solid network infrastructure.

Just-in-time assessment.

Installation of i21 classroom suite.



2009-2011

2011-2012

2012-2014

i21 roadmap

2011-2012



An evolving learning experience.

Increased access to digital resources, intervention programs and classroom websites.

Business intelligence drives decision-making.

24/7, 365 access to learning.

Leadership development.



2011-2012

2012-2014

i21 roadmap

2012-2014



Digital textbooks begin to replace print material.

Personalized instruction meets the needs of the 21st century learner.

Digital dashboards with drill-down access to a variety of real-time district data.

50% of high school students will take at least one course online.

All core classrooms are equipped for the 21st century.



2012-2014

Changing the Learning Landscape

i21 Initiative



“The i21 instructional program is in the **vanguard** of true 21st Century instructional strategies...”

“...a **leading example** of where public education is headed as school districts learn to harness the potential of technology to enhance student achievement through an **engaging student-centric** approach that **mirrors the digital world** in which they live...”

Gartner, Inc. December 2011



i21 Interactive Classroom

Prop S Update



Questions