San Diego Unified
SCHOOL DISTRICT

i21 Interactive Classroom
Year 4 /5
1st Quarter

Proposition S/Z Update

October 2013

i21 Interactive Classroom
Prop S/Z 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/Z Update

The voter-approved bond mandates that we

…create 21st century learning environments…

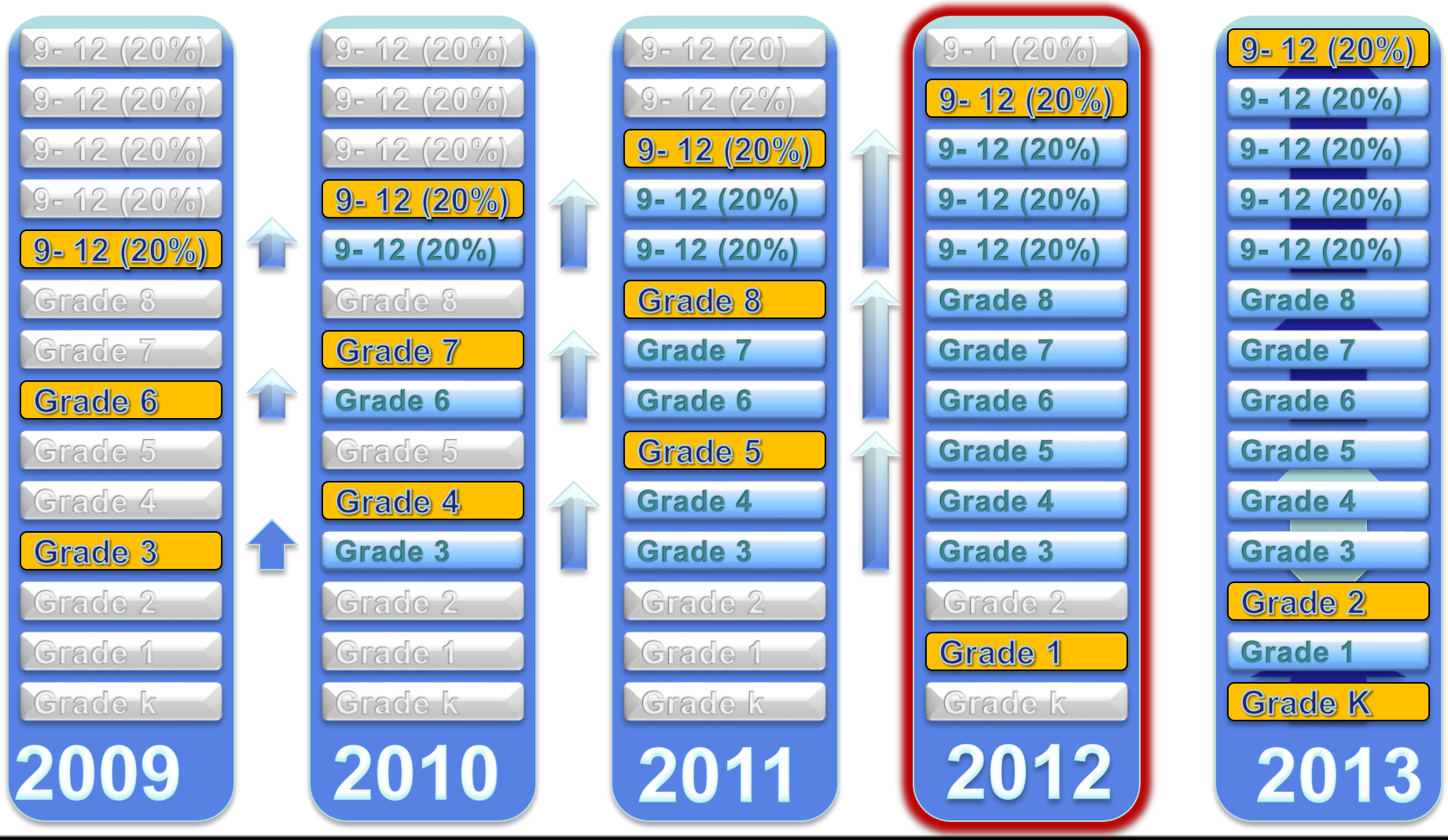
Bond Initiative
Prop S/Z Update

… 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*
- *Sustainability Funding*

Changing the Learning Landscape

i21 Initiative 5-Year Plan



i21 Goals
Prop S/Z 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/Z 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/Z 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
Connected
Kids
Realia
Online
Visuals
Interactive
Creative
Flipcharts
Easy
Student-Centered
Data
Exciting
Transformation
Collaborative
Relevant
ALL-Students
Differentiated
Voting
Engagement
Fun
Technology
Current
Access
Active-Learning
3G
Learning-Style
24/7
Classroom
Broadband
21st
Change
Student
4G
Interesting
Digital
Choice
Learning
Integration
Achievement
Netbooks
Growth
Real-World
Teachers

San Diego Unified
SCHOOL DISTRICT

Year 4/5 Update

Physical Installation Sequence

Professional Development Sequence

implementation flowchart

Phase 1:
Includes Wiring Installation

Phase 2:
i21 Equipment Installation, including Interactive Whiteboard.

i21 Teacher Vision/Tablet PC Training

promethean board installation: fall/winter

Promethean Level 1 Training

netbook/printer installation: winter/spring

Device /ActivEngage Implementation

Promethean Level 2 Training

Promethean Level 3 Training

Year 4 Implementation Totals

Prop S/Z Update

Promethean boards installed	**897**
Teacher tablets distributed	**897**
Student devices to be distributed	**20,849**
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 5 Implementation Totals

Prop S/Z Update

Promethean boards to be installed	**1146**
Teacher tablets distributed	**1087**
Teacher tablets to be distributed	**59**
Student devices to be distributed	**TBD**
Teachers to be trained:	
classroom teachers plus	**950**
Special Ed support	
Promethean Levels 1, 2 and 3	

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

Year 4 Implementation

Prop S/Z Update

- Year 4 student devices delivery have been 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 were sold in late spring 2013.
- Training for student devices for Year 4 teachers has been postponed until Fall 2013
    - Intro to iPad / Netbook 1:1 environment
    - Instructional Vision and Integration
    - Classroom Follow-up

Year 4 Implementation
Prop S/Z Update

Impact of delayed student device rollout on the i21 program:

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

Changing the Learning Landscape
i21 Professional Development

Evolution of Instruction

Prop S/Z Update

Invention

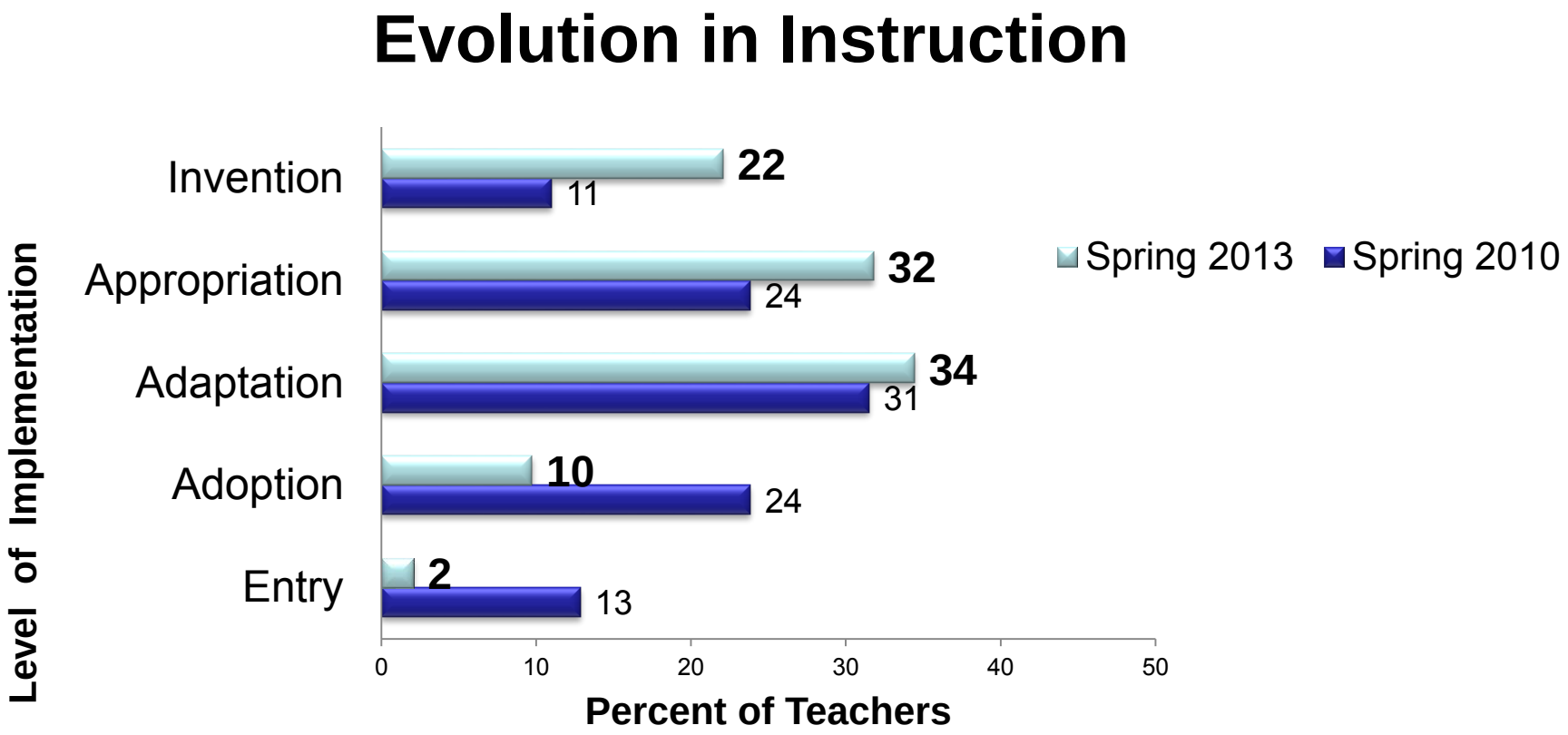
Appropriation

Adaptation

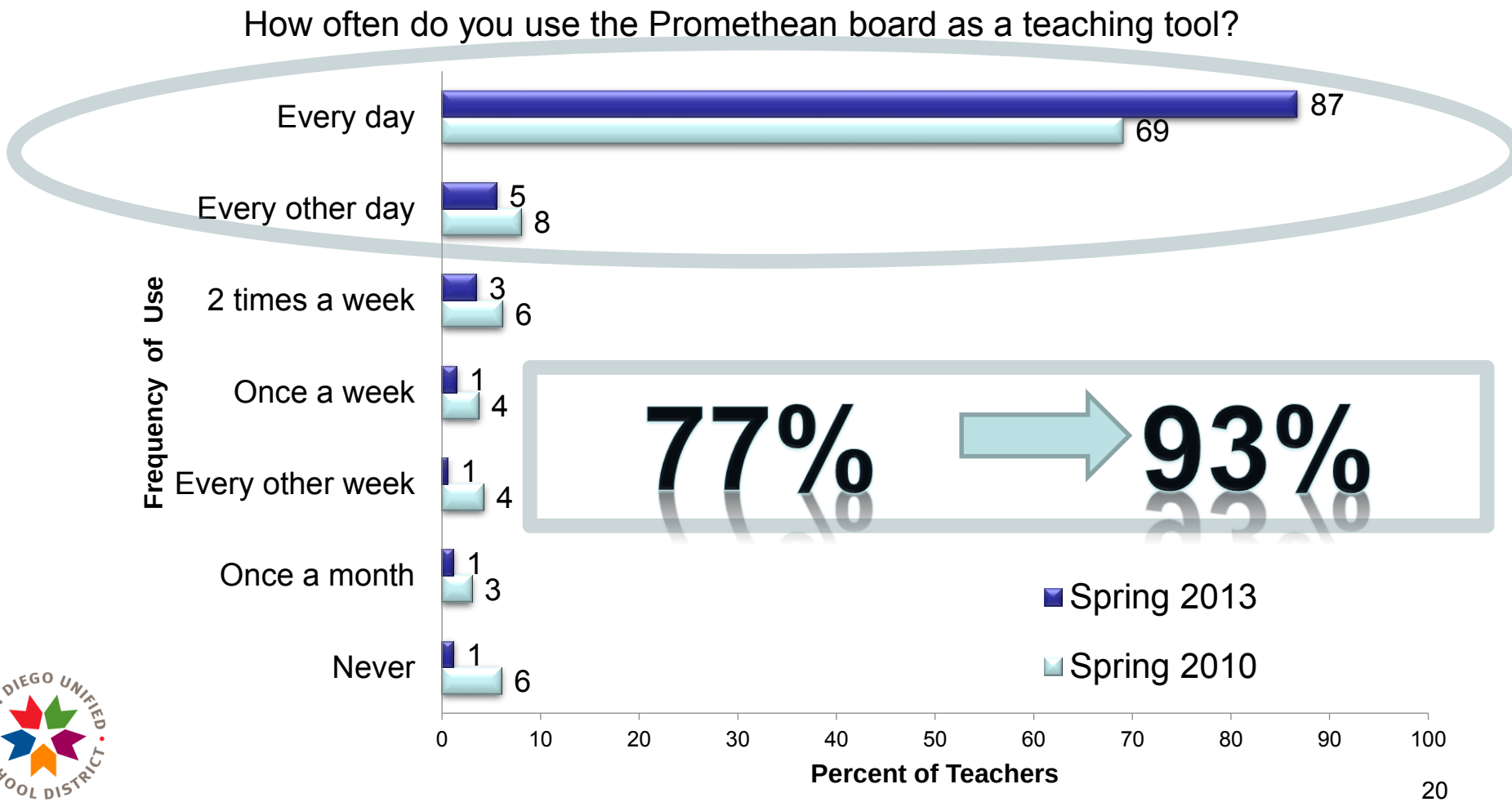
Adoption

Entry

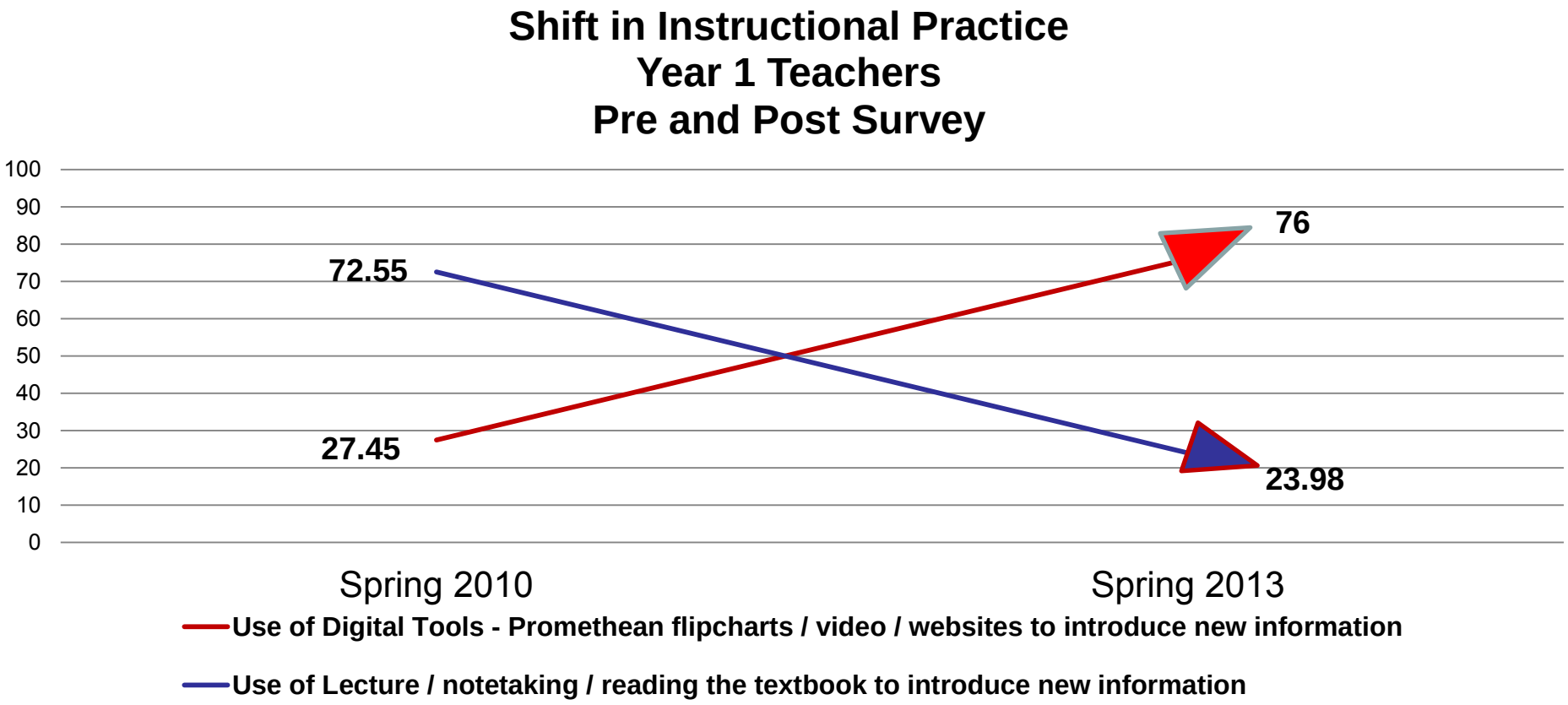
Continuing Growth - Y 1 Teachers
Spring 2010 to 2013



Continuing Growth - Y 1 Teachers
Spring 2010 to 2013

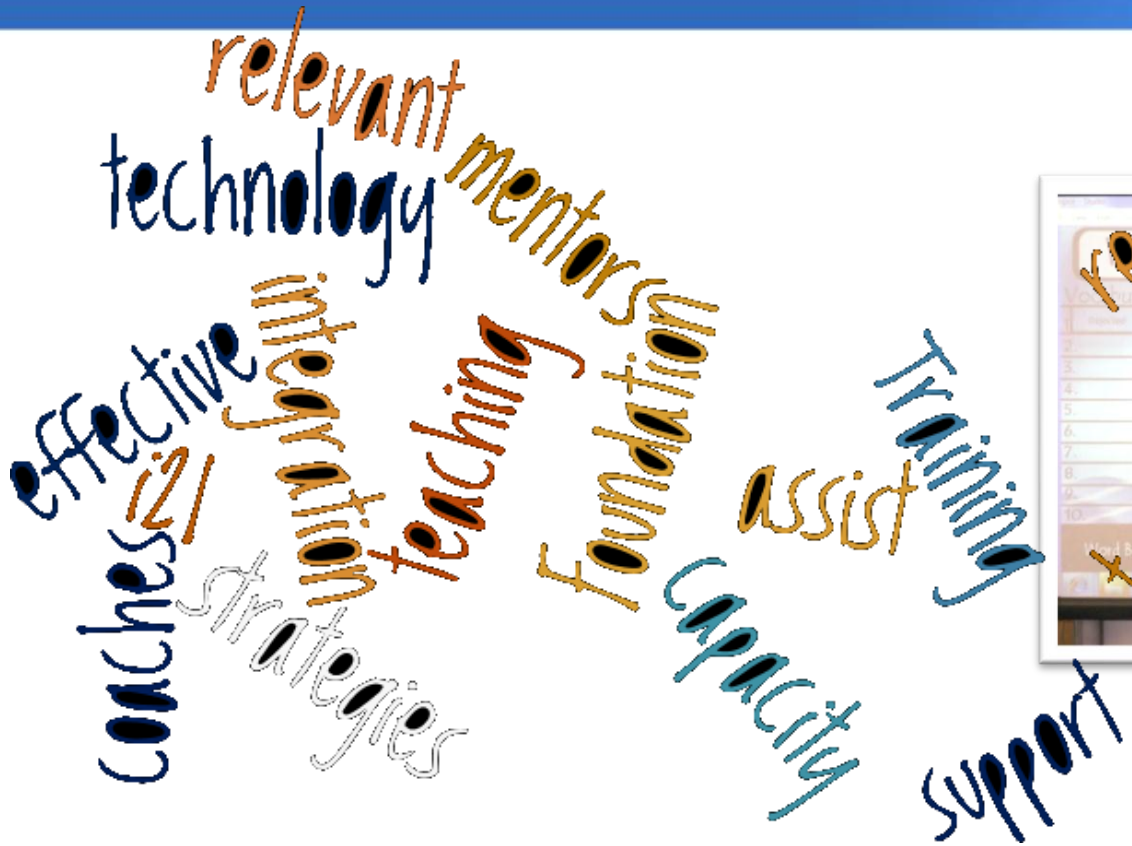


Changing the Learning Landscape
Year 1 Teachers – Spring 2013



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

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…

LOGO

Taking i21 to the Next Level

6th grade at:

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

7th and 8th at Innovation Middle

LOGO

Taking i21 to the Next Level

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.

LOGO

Taking i21 to the Next Level

Site Support:

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

LOGO

Initial Student Survey

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

LOGO

Initial Parent Survey

- **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.

LOGO

Parent Feedback

"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

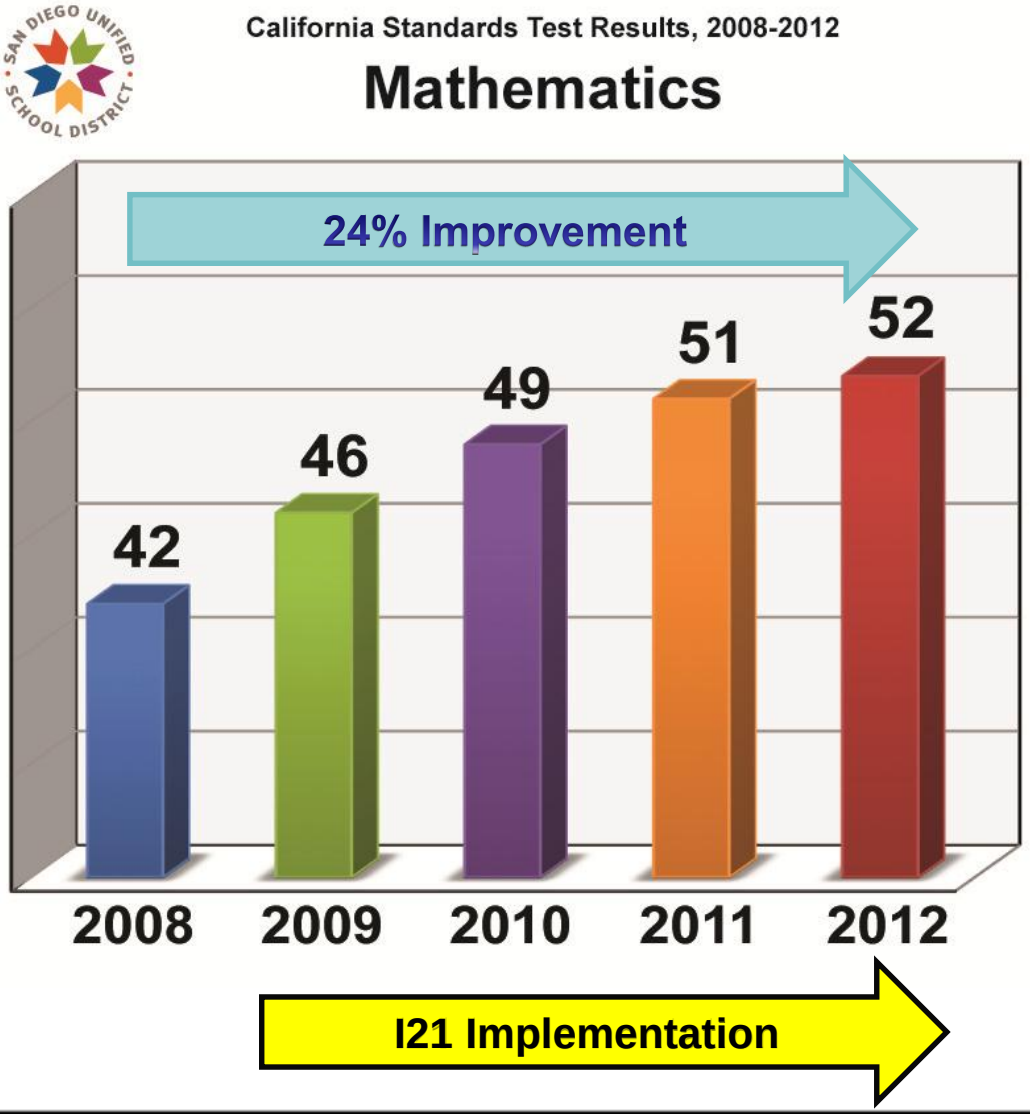
Changing the Learning Landscape

District-wide Achievement

Meeting the needs of today's learners

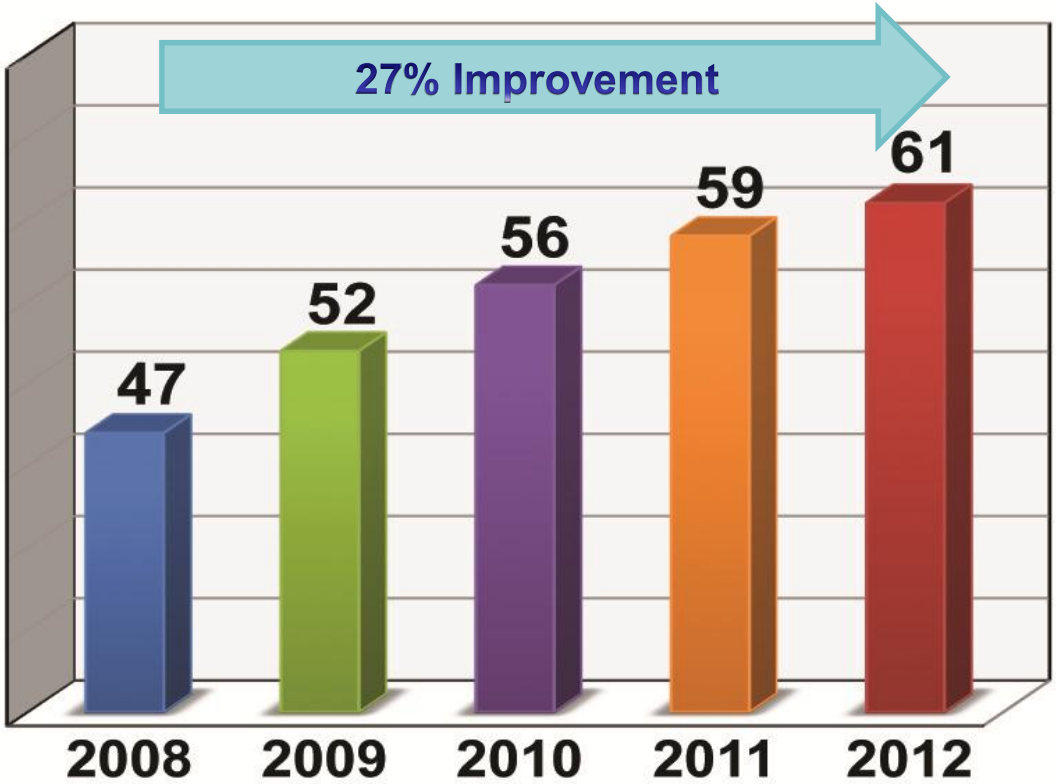
Changing the Learning Landscape

Student Achievement



Changing the Learning Landscape

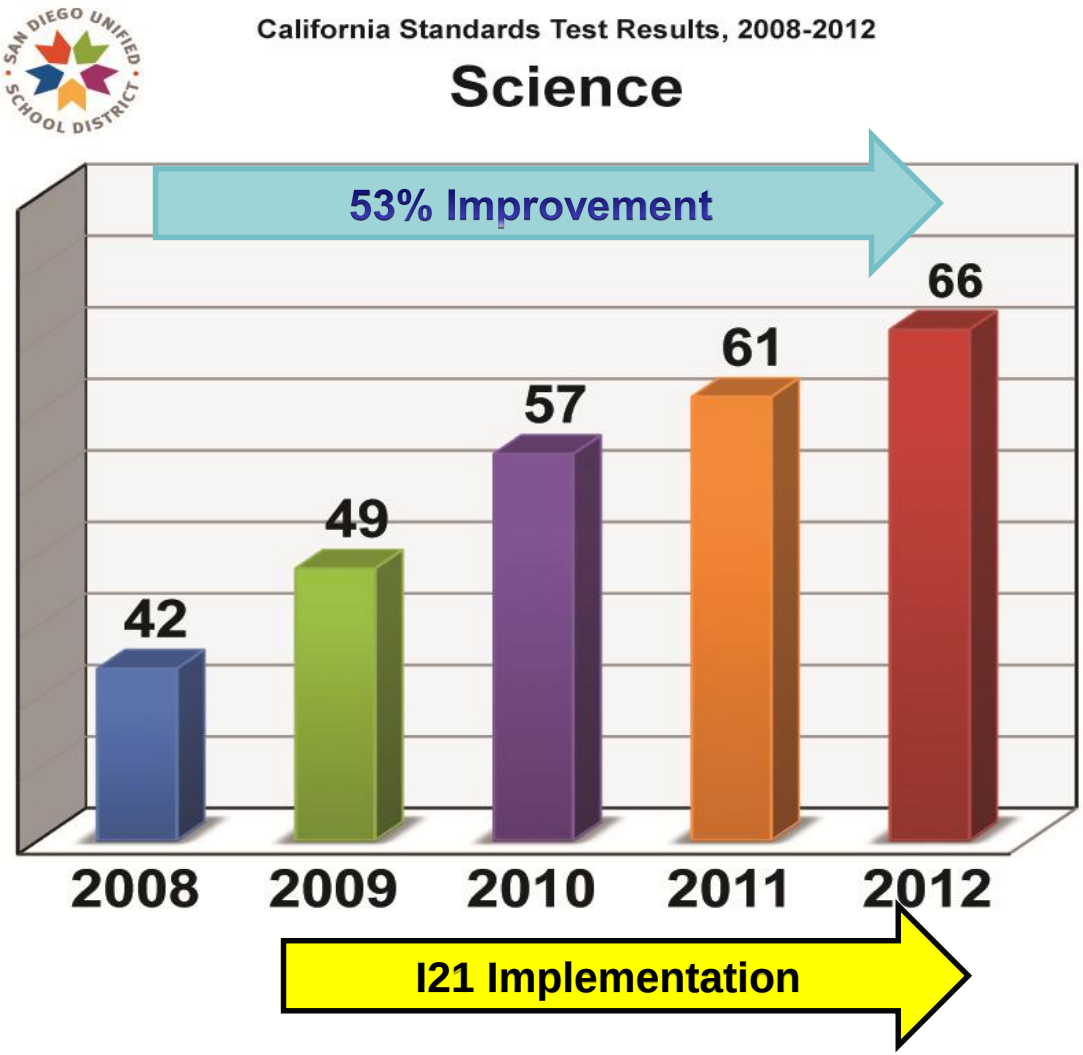
Student Achievement



I21 Implementation

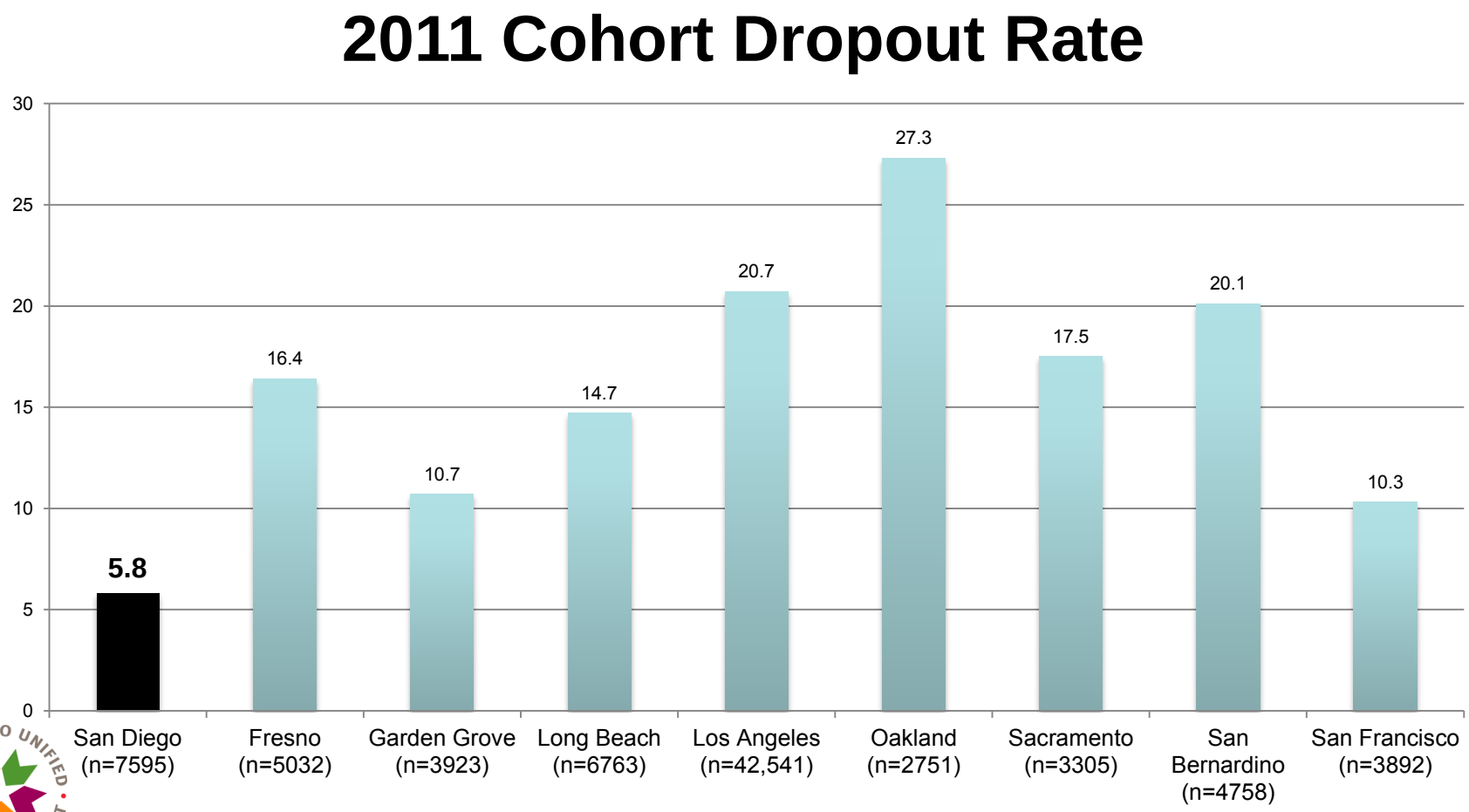
Changing the Learning Landscape

Student Achievement



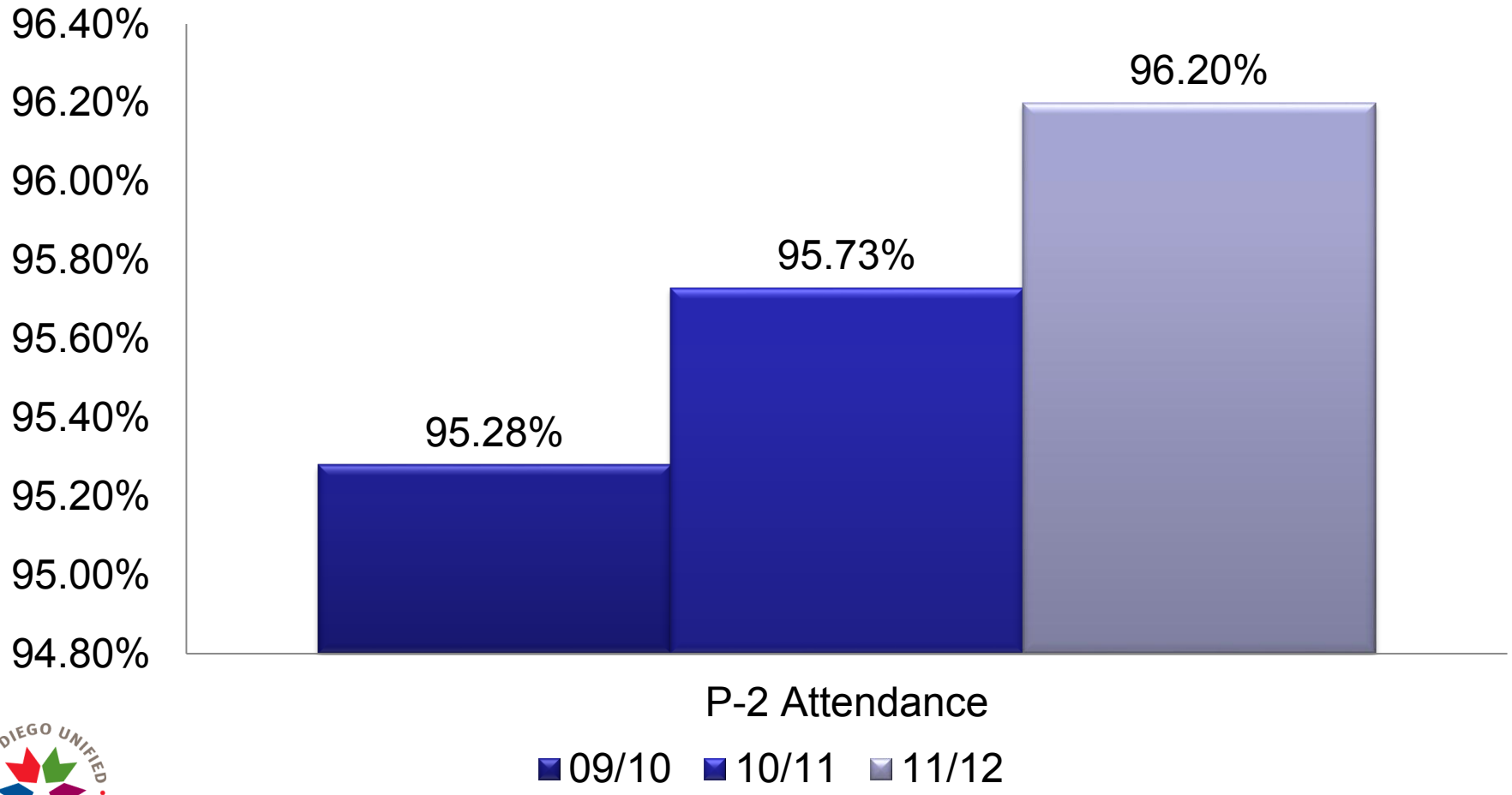
Changing the Learning Landscape

Student Drop Out Rate



Changing the Learning Landscape

Student Attendance



Classroom of the Future's 2013
Innovation in Education Award

SD Unified'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.

Broad Foundation Award 2013 Award Nominee

Exit remarks from Broad visit highlights district strategies that they felt deserved “to be replicated across the nation”.

“The i21 Classroom Program.” The Broad team was impressed by the full implementation of the i21 technology program that was more than a pilot, but instead a district-wide priority and investment that was working to create equity and access for all students. They pointed out that the program heightens student engagement, empowers teachers and provides relevant professional development.

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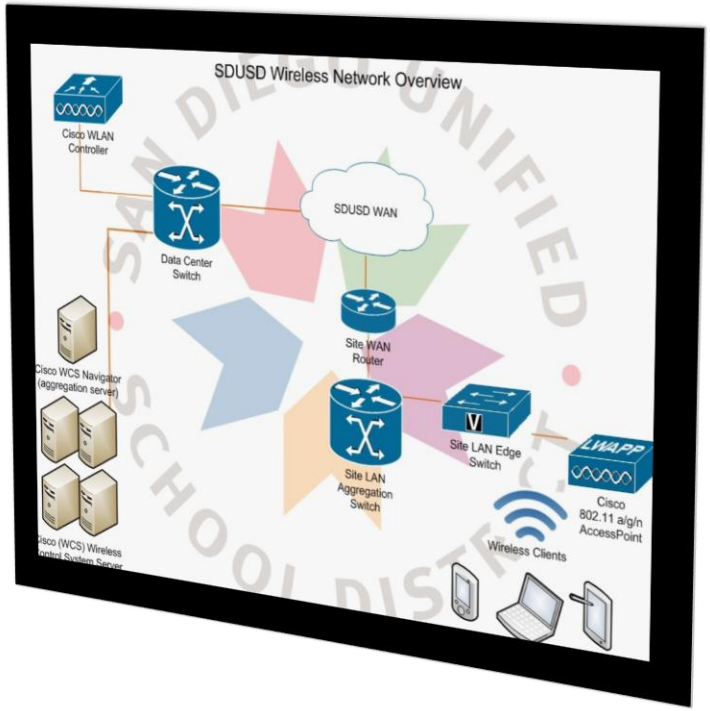
Infrastructure Upgrades and Equipment

Campus-wide Wireless Upgrades

Wide Area Network

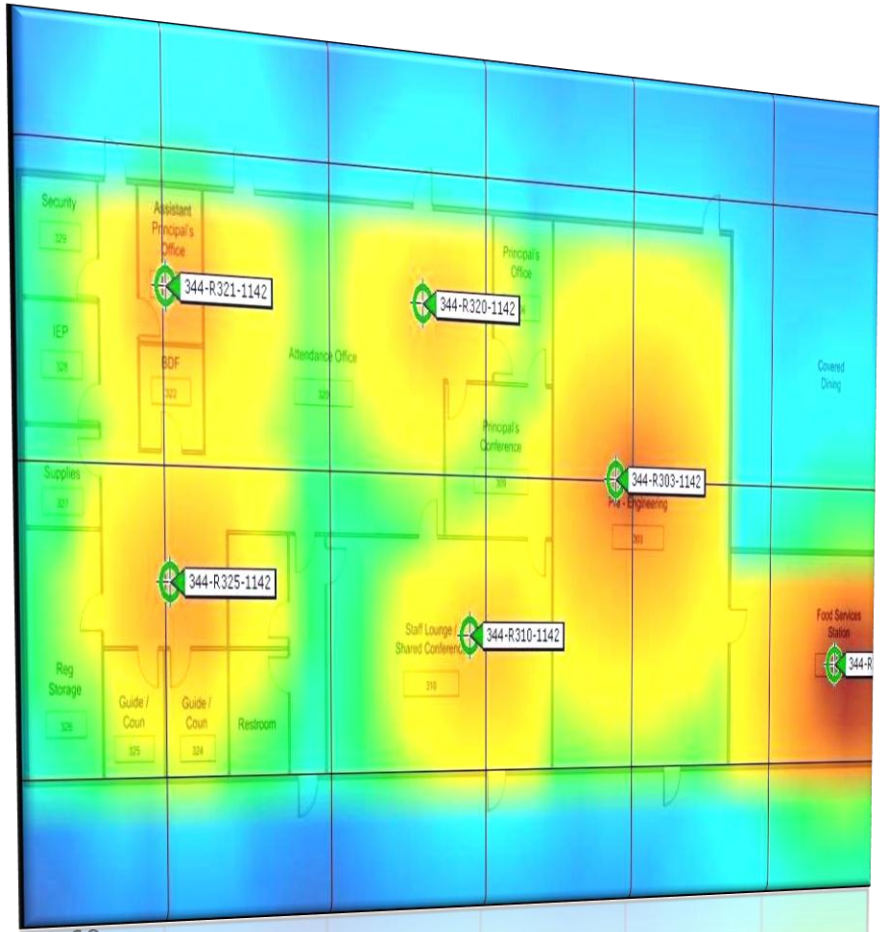
- Approximately 11,000 dual band Cisco 802.11a/g/n access points will be deployed for indoor and outdoor client access over 5 years

- As of October 2013
  - 8260 access points installed
  - 4,750 rooms with i21WIRELESS
  - Over 80 schools are now campus wide



Campus-wide Wireless

Wide Area Network Upgrade



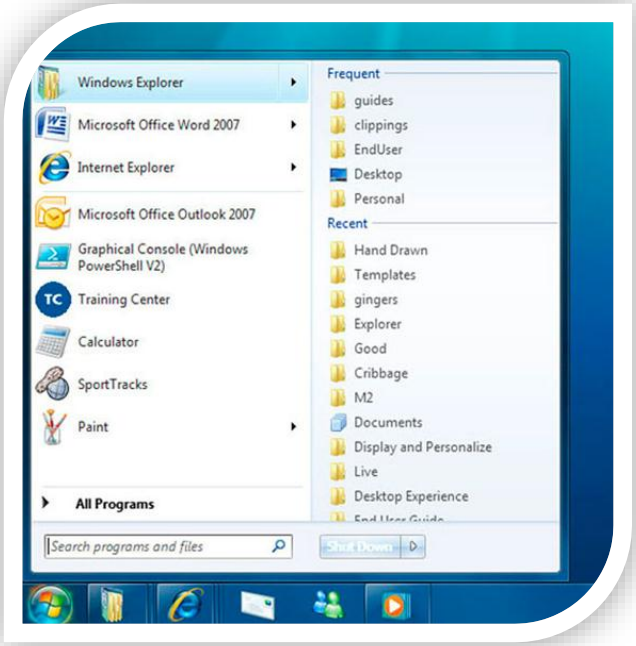
Centralizing controllers into the Data Center cuts down on service visits to remote sites..

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
Microsoft One Note 2010
Microsoft Office 2010
Google Earth – 6.0.1.2032
Geogebra – 3.2.46.0

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 Interactive Classroom

Prop S/Z Update

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)

I21 Sustainability

Teacher Tablet after 5 years

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

(Teacher 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)

I21 Sustainability

Promethean Board after 5 years

Promethean Boards					
	Quantity	Estimated Price	Estimated Annual Repair Costs	4 Year Replacement Cycle Annul 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)

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

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

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

Questions