



San Diego Unified
SCHOOL DISTRICT

i21 Interactive Classroom Year 3 4th Quarter

**Proposition S Update
July 2012**



i21 Interactive Classroom

Prop S Update



- SDUSD is the 2nd largest district in California.
 - Approximately 132,000 students in pre-school through grade 12.
 - 107 elementary schools, 11 K-8 schools, 24 traditional middle schools, 28 high schools, 45 charter schools, and 13 atypical/ alternative schools.
 - Diverse student population - more than 15 different ethnic groups speaking over 60 languages and dialects.
 - Free / Reduced lunch - 59.1%



i21 Interactive Classroom

Prop S Update



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



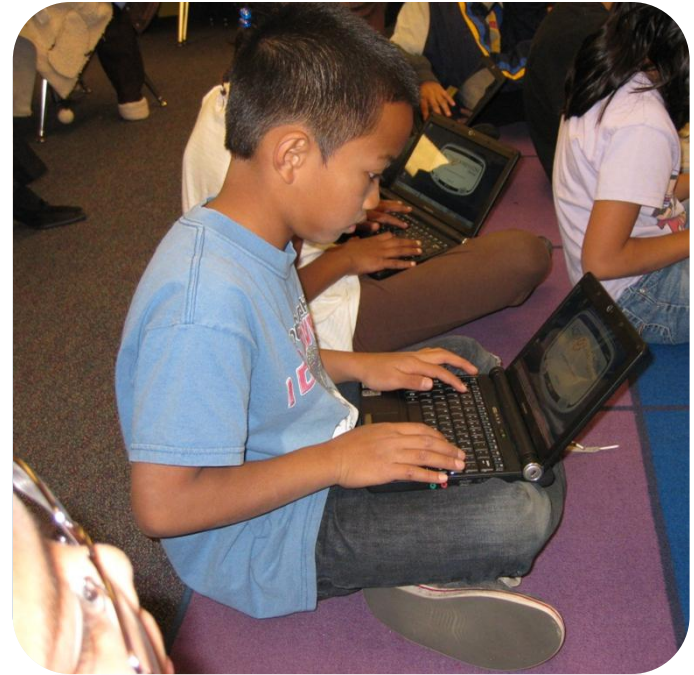
Bond Initiative

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**



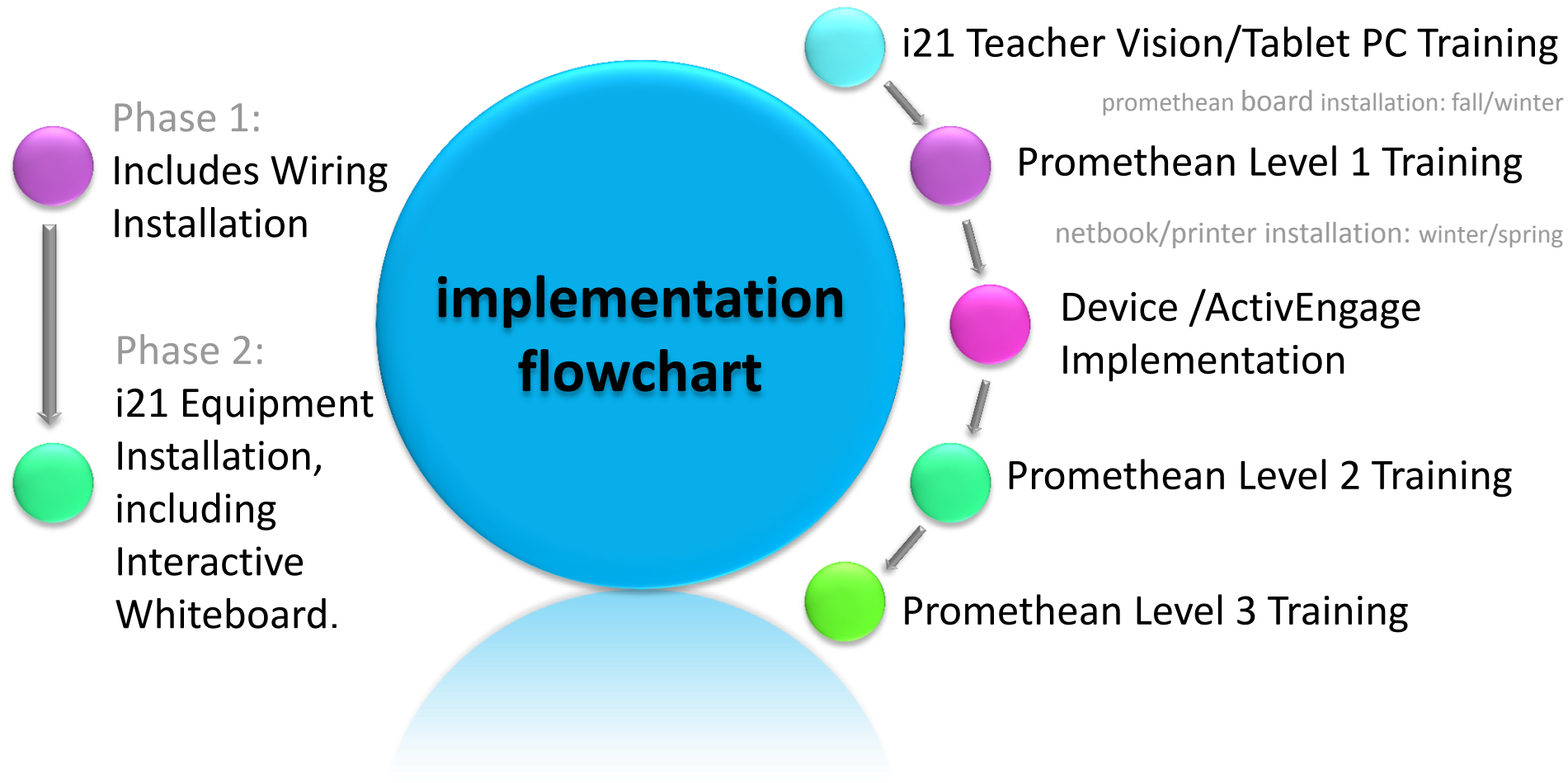
Exciting
Transformation
Easy
Connected
Kids
Creative
Realia
Online
Visuals
Interactive
Flipcharts
Data
ALL-Students
Collaborative
Relevant
Fun
Technology
Engagement
Active-Learning
Classroom
Broadband
3G
Differentiated
Voting
Change
Student
Choice
Achievement
Integration
Growth
Teachers
Netbooks
Real-World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



San Diego Unified
SCHOOL DISTRICT

Year 3 Update





i21 Interactive Classroom Update

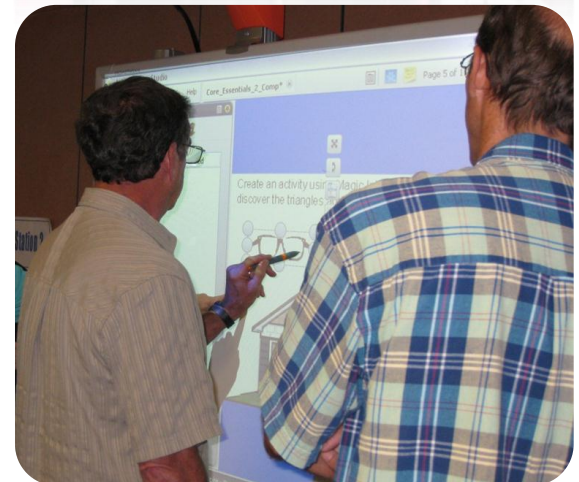
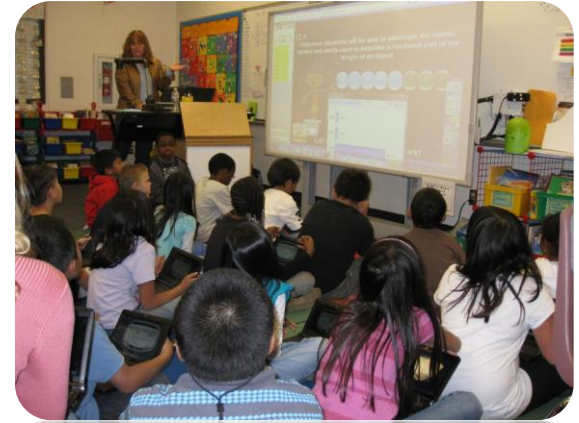
Year 3 Implementation Totals

Prop S Update



Promethean boards installed	872
Teacher tablets distributed	872
Student devices to be distributed	26,065
Teachers trained:	
classroom teachers plus	925
Special Ed support	
Promethean Levels 1, 2 and 3	

Approximately 60% of core curriculum classrooms completed in Y1, Y2 and Y3



Year 3 Implementation – iPads

Prop S Update



Y3 Student device implementation in two phases

- This Spring and into the Fall of 2012-13 school year

Phase 1 Purchase

- May – July timeframe for distribution
- Installs based on high need schools first
- 81 schools identified
- 10,846 iPads
- Split PD model to accommodate late rollout
 - Intro to iPad - Spring
 - Classroom follow up – Spring
 - Instructional implementation – Fall
 - Classroom follow-up - Fall



Year 3 Implementation – iPads

Prop S Update



Y3 Student device implementation in two phases

- Phase 2 Purchase
 - Installation beginning mid-August
 - All remaining schools
 - 15,219 student devices
 - Training - Fall
 - Intro to iPad environment
 - Instructional Vision and Integration
 - Classroom Follow-up





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



Invention



Appropriation



Adaptation



Adoption



Entry

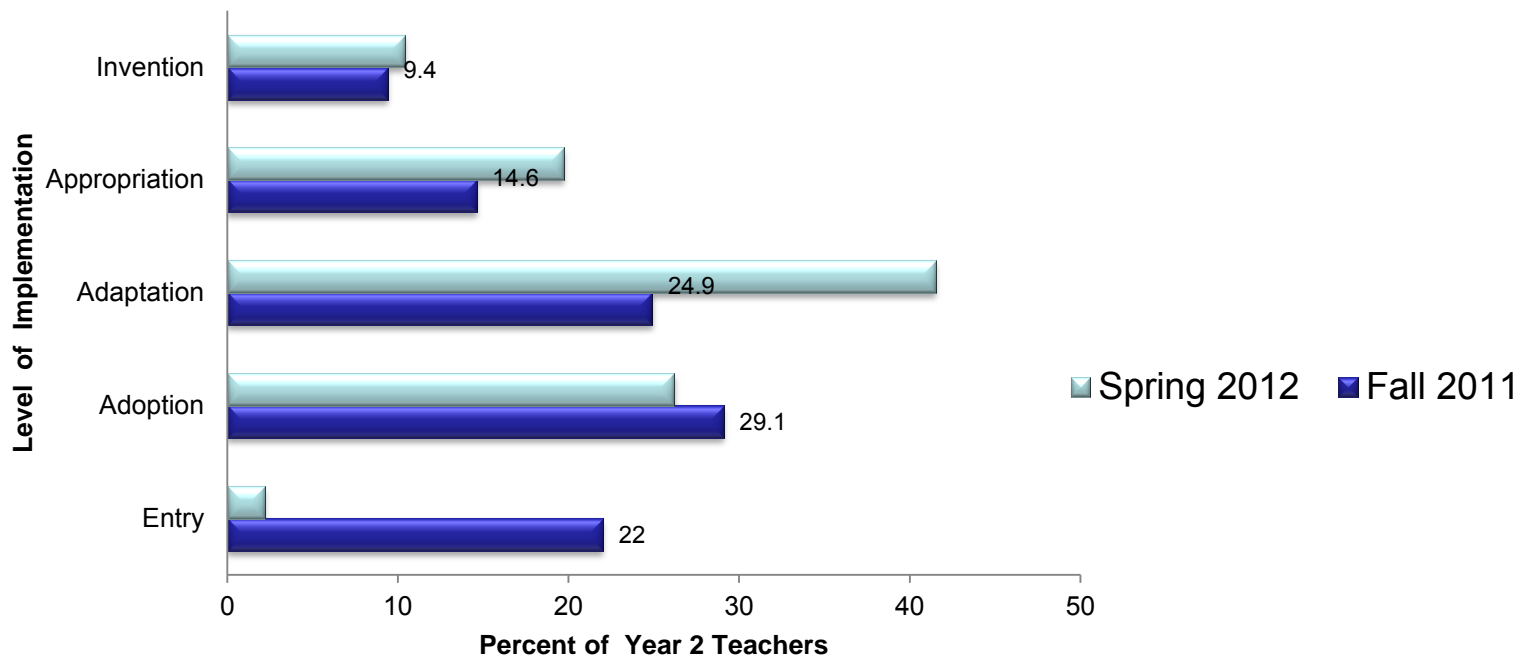
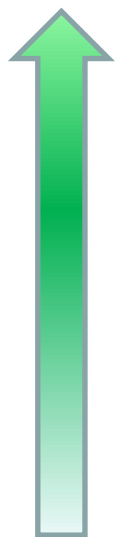


Evolution of Instruction

Year 3 Teachers



Evolution of Technology Implementation Year 3 Cohort Pre and Post Survey

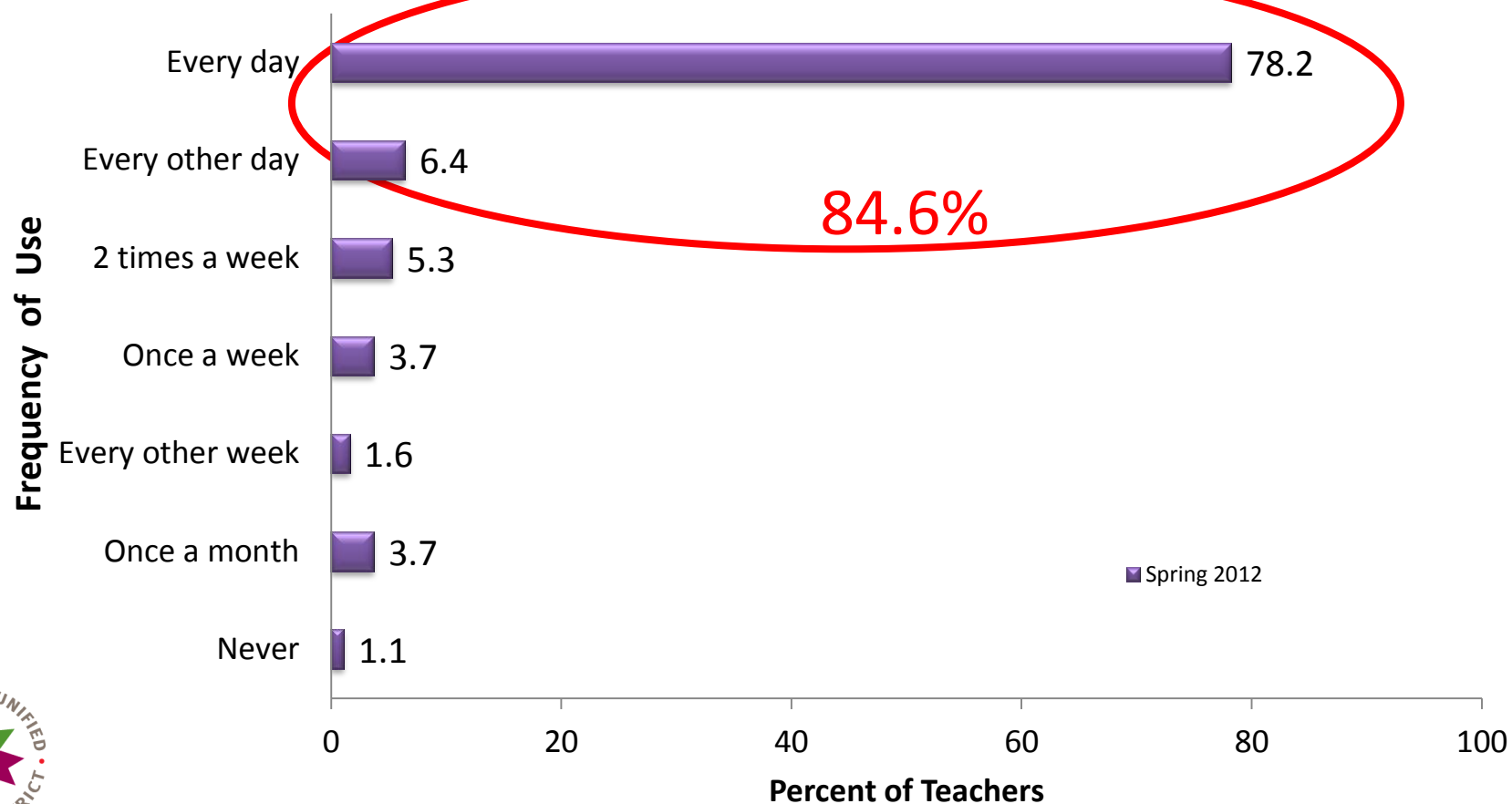


Technology Implementation

Year 3 Teachers – Spring 2012



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

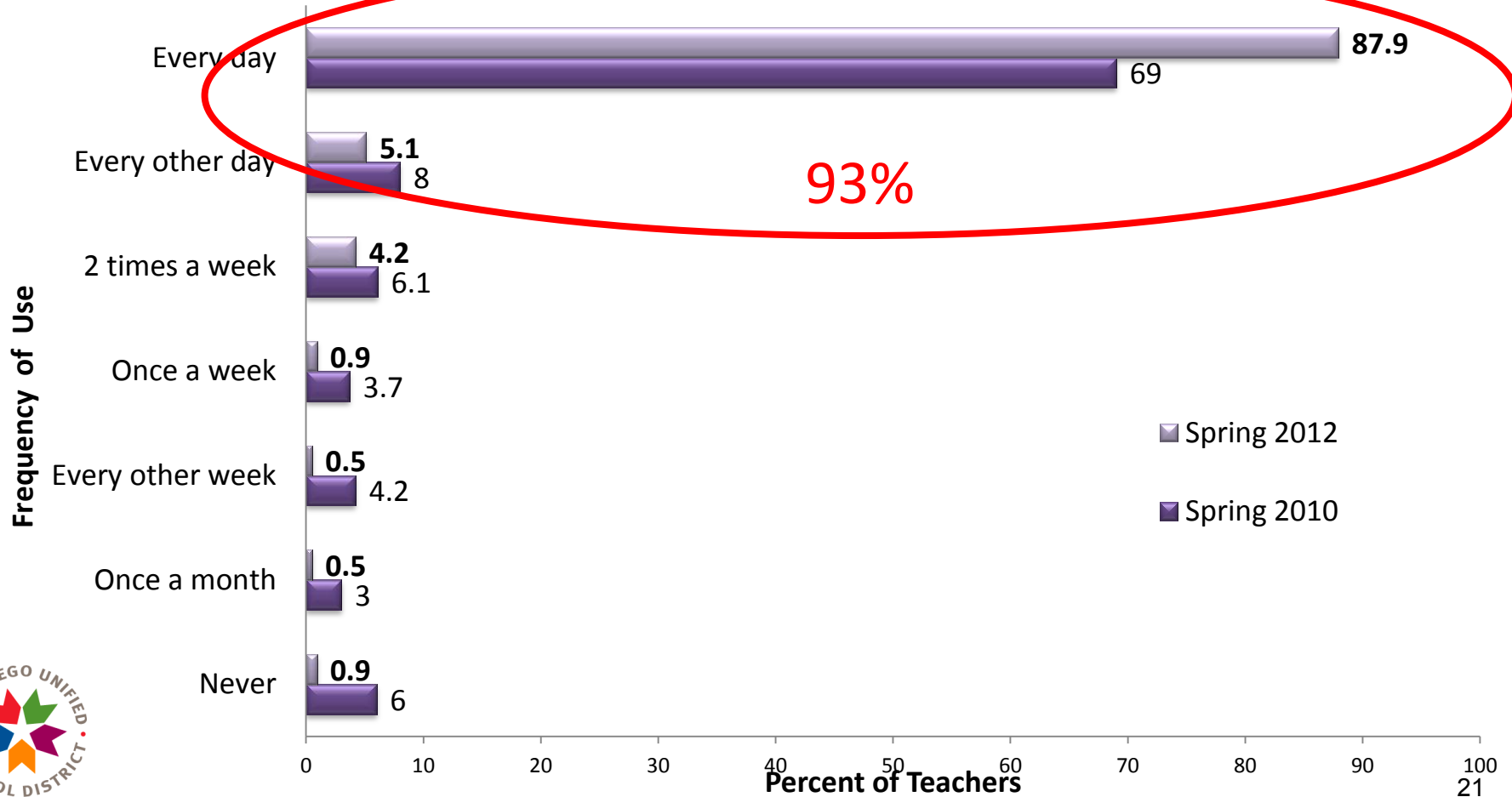


Continuing Growth - Y 1 Teachers

Spring 2010 to 2012



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

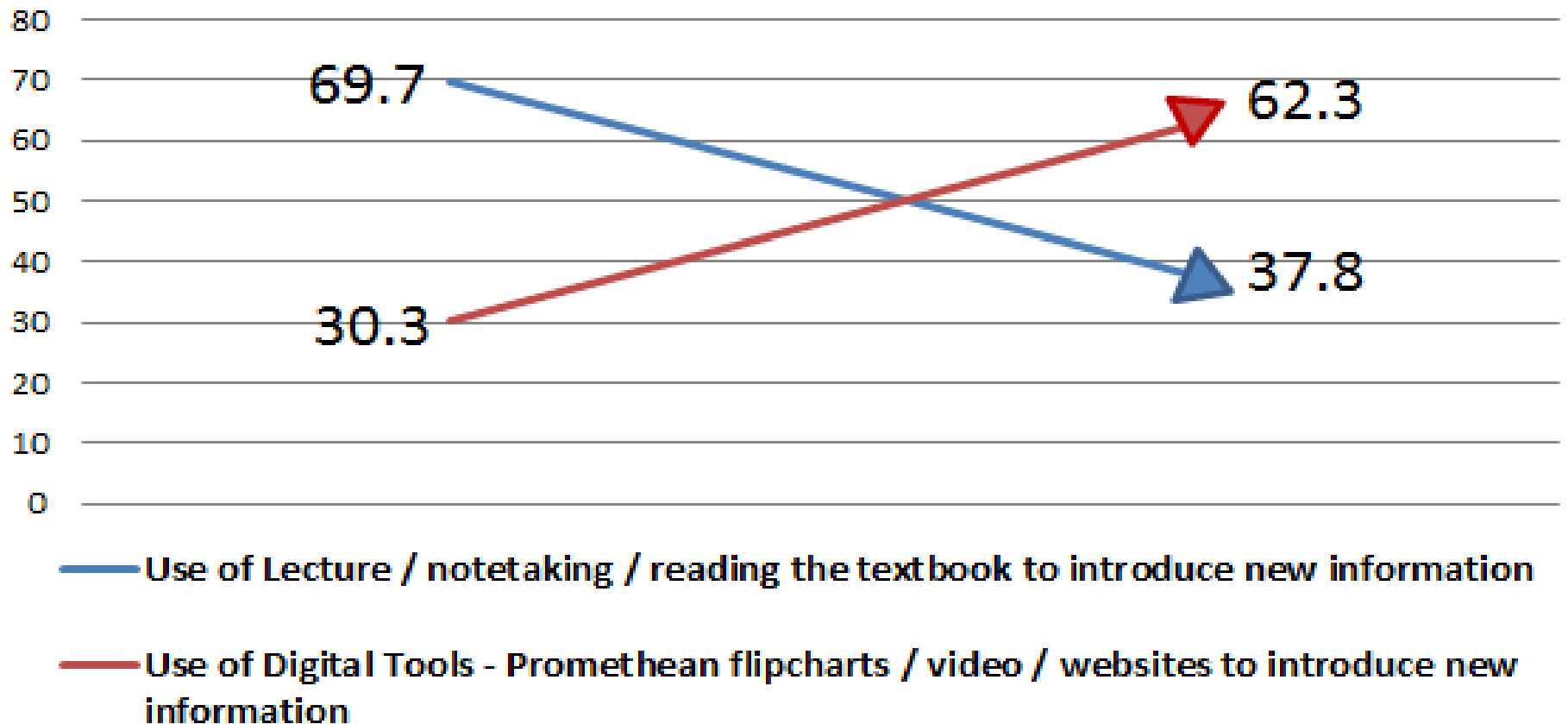


Changing the Learning Landscape

Year 3 Teachers – Spring 2012

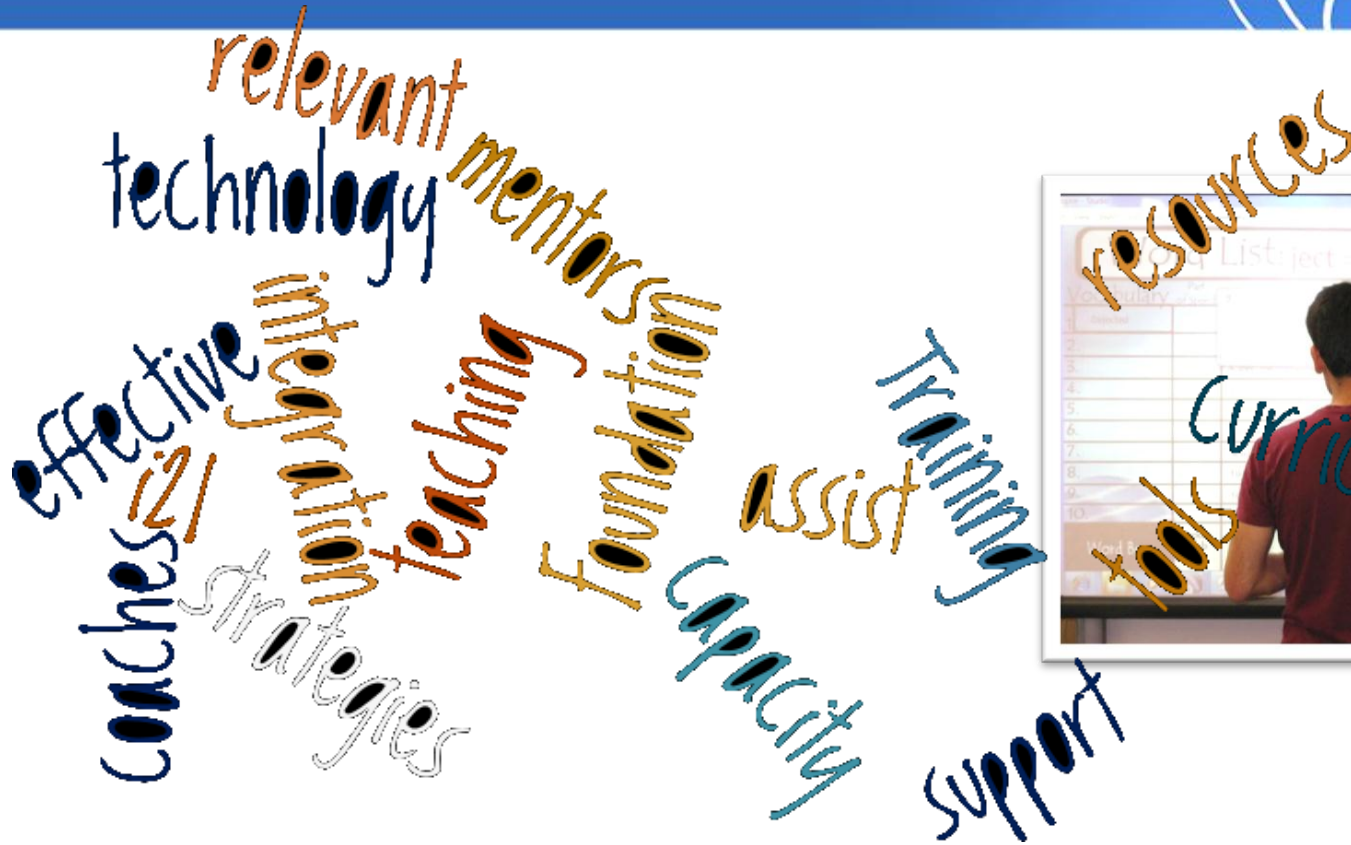


Shift in Instructional Practice Year 3 Teachers Pre and Post Survey



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 2011-12 school year.





San Diego Unified
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Learning On the GO

1:1 Laptop Program
2011- 2012



LOGO

Taking i21 to the Next Level

Subscription





...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 RT
- 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



Classroom of the Future's 2012 Innovation in Education Award



The LOGO Experience
Anytime...Anywhere



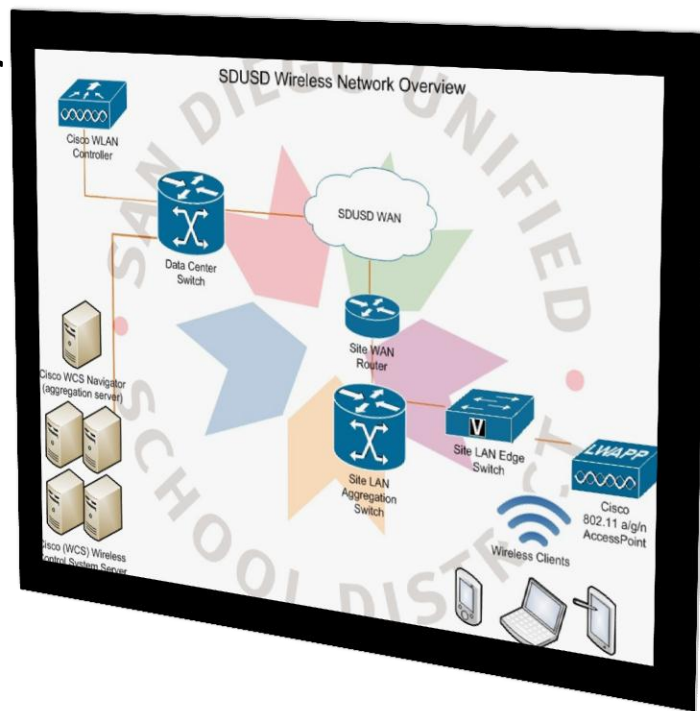
Infrastructure Upgrades and Equipment

Campus-wide Wireless Upgrades

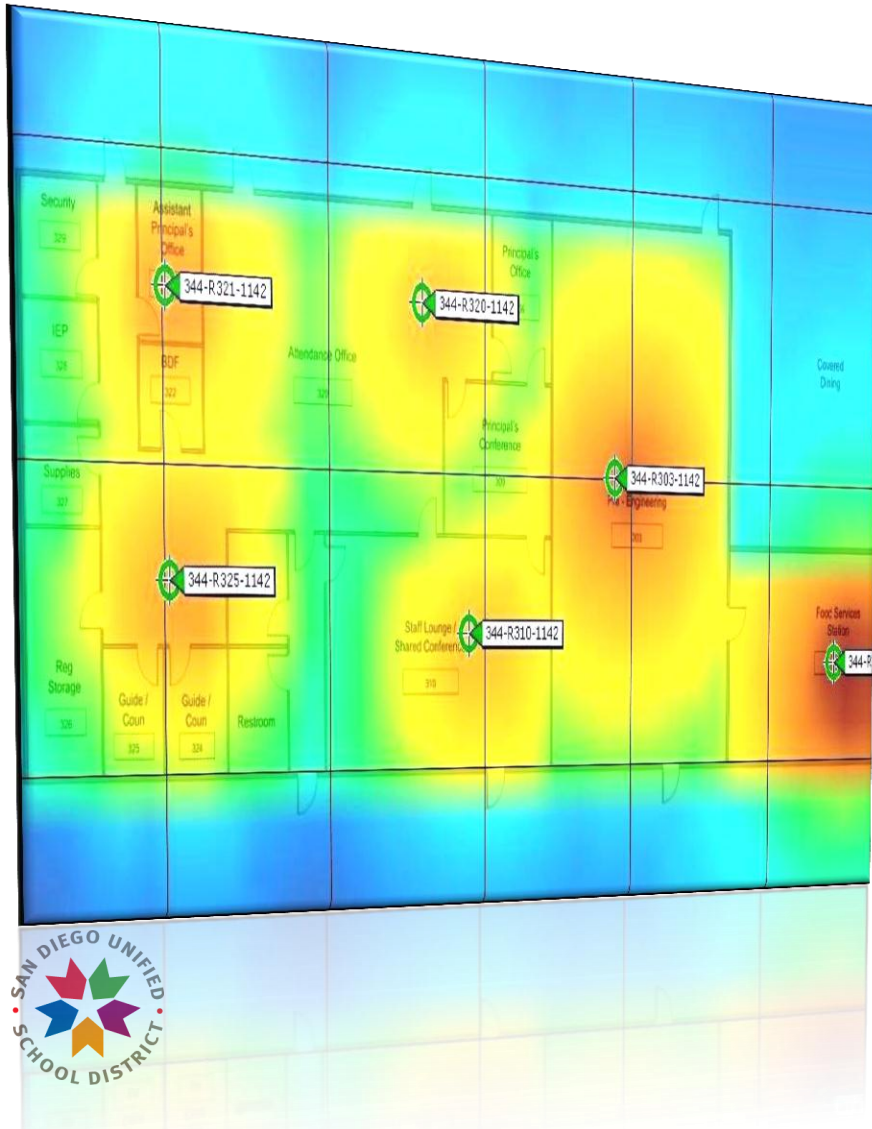
Wide Area Network



- 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 2012
 - 6,688 access points installed
 - 3,500 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 1.5.3144
- ActivEngage 1.1.17
- Document camera software SDP 50DX
- USB Viewer, SDP 860 USB Viewer
- 3.3.2
- Firefox 3.6.8
- 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 5.2.1.1329
- Geogebra 3.2.42.0
- Snipping tool



Student Netbook

Software for Students



ActivInspire Version
1.5.3144

ActivEngage 1.1.17

Firefox 3.6.8

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 5.2.1.1329

Geogebra 3.2.42.0

Snipping tool



i21 sustainability estimates
after 5-year rollout is complete

I21 Sustainability

Netbooks 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 Annual 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 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		
<small>(Promethean board life expectancy is estimated to be 18-20 years with proper maintenance)</small>					
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I21 Sustainability

After the 5 year rollout is complete



i21 Sustainability Estimates					
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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

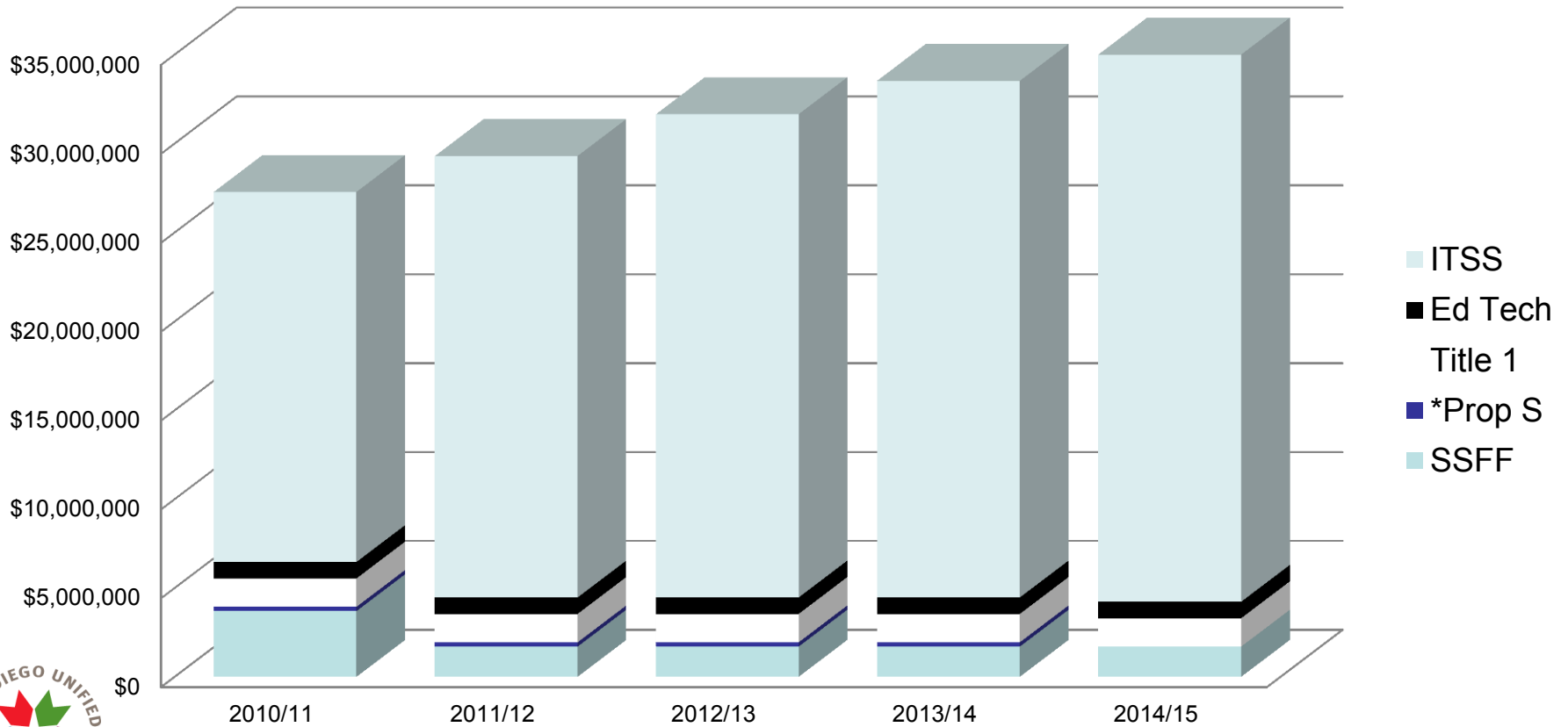


I21 Sustainability

5 Year Technology Plan Budget



ITSS 5 Year Technology Plan Budget
Fiscal Years 2011-2015





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

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



“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...”





Questions





Level 1 - Entry

Instructional technology is textbook-based; tools are blackboards, worksheets, and overhead projectors. Teachers have little experience with computer technology.

Evolution of Instruction

Adoption



Level 2 - Adoption

Teachers may be concerned about how technology can be integrated into daily instruction . Technology is interspersed among traditional whole-group lectures, recitations, and seatwork.

Evolution of Instruction

Adaptation



Level 3 - Adaptation

Technology becomes thoroughly integrated into traditional classroom practice. Lecture, recitation, and seatwork remain the dominant form of student tasks but students use word processors, databases, some graphic programs for approximately 30-40% of the school day.

Evolution of Instruction

Appropriation



Level 4 - Appropriation

A milestone evidenced by a change of personal attitude toward technology. Teachers begin to replace old habits with new and use technology effortlessly as a tool to accomplish real work.

Evolution of Instruction

Invention



Level 5 - Invention

Interdisciplinary project-based instruction, team teaching, and individually paced instruction become common. Students were busier, more active; the classrooms buzz. Students can be observed helping other students over technology hurdles and they help their teachers. Teachers adapt to the more empowered status of students.