



UNITED INDEPENDENT SCHOOL DISTRICT INFORMATIONAL ITEM

TOPIC: Delivery of Instruction in a Technology-Driven Classroom: A Mobile Learning Program

SUBMITTED BY: Dr. Guadalupe C. Gorordo, Ph.D., Associate Superintendent

OF: Curriculum & Instruction Department

APPROVED FOR TRANSMITTAL TO SCHOOL BOARD: _____

DATE ASSIGNED FOR BOARD CONSIDERATION: April 17, 2013

INFORMATIONAL REPORT: Proposal to implement a Mobile Learning Device Program to enhance the existing curriculum and to impact teaching and learning during the 2013 summer school program and to maintain it during the 2013-14 school year.



United Independent School District

Delivery of Instruction in a Technology-Driven Classroom A Mobile Learning Program

Summer 2013 Pilot and 2013-14 Pilot Maintenance

Curriculum & Instruction and Information Technology Departments
April 4, 2013

Mobile Learning Model

1. Progressive Leadership and Commitment
2. Structured Technology Capacity
3. Professional Development
4. Gradual, Expandable and Systematic
5. Policies that Promote and Support the Initiative

Why Mobile Devices?

- ▶ Districts across the country are embarking on a new journey that integrates the use of Mobile Devices practices to remain in line with educational and technological trends.
- ▶ Allow students to use “real-world” tools in constructive ways to enhance their learning and promote skills including collaboration, communication, research, critical thinking, creativity, and organization.
- ▶ Leadership and vision are pivotal to the development of mobile learning initiatives.
- ▶ Teachers learn how to use mobile technology to positively change the direction of instruction and learning
- ▶ The use of a mobile learning device is more than just replacing print resources with digital versions.

Mobile Device Learning Program

Building a foundation of learning through technology

Program Vision

To integrate the use of mobile learning technology in our schools to offer our teachers and students the tools needed to master 21st Century Skills and to support the delivery of instruction in a technology-driven classroom.

Expectation

To finalize the 2013 Summer Pilot and 2013–14 pilot maintenance of a Mobile Learning Device Plan to enhance the existing curriculum and to impact student learning.

GOAL 1: Technology Tools for Teaching & Learning

Promote academic excellence by engaging students in learning processes and adding instructional value to our learning environments (classrooms, libraries) that promote student engagement.

- ▶ Continue to include the most current Technology Applications TEKS within the district's TEK's based curriculum at each grade level.
- ▶ Support the use of emerging technologies, innovative strategies and access to technology-based learning for all students by providing the appropriate infrastructure, curriculum, equipment and technology services including distance learning, remote access and digital content.
- ▶ Provide cyber-security curriculum to ensure personal safety for students as well as Acceptable User Policies which set expectations and rules for students, parents and district personnel.

GOAL 2: Professional Development

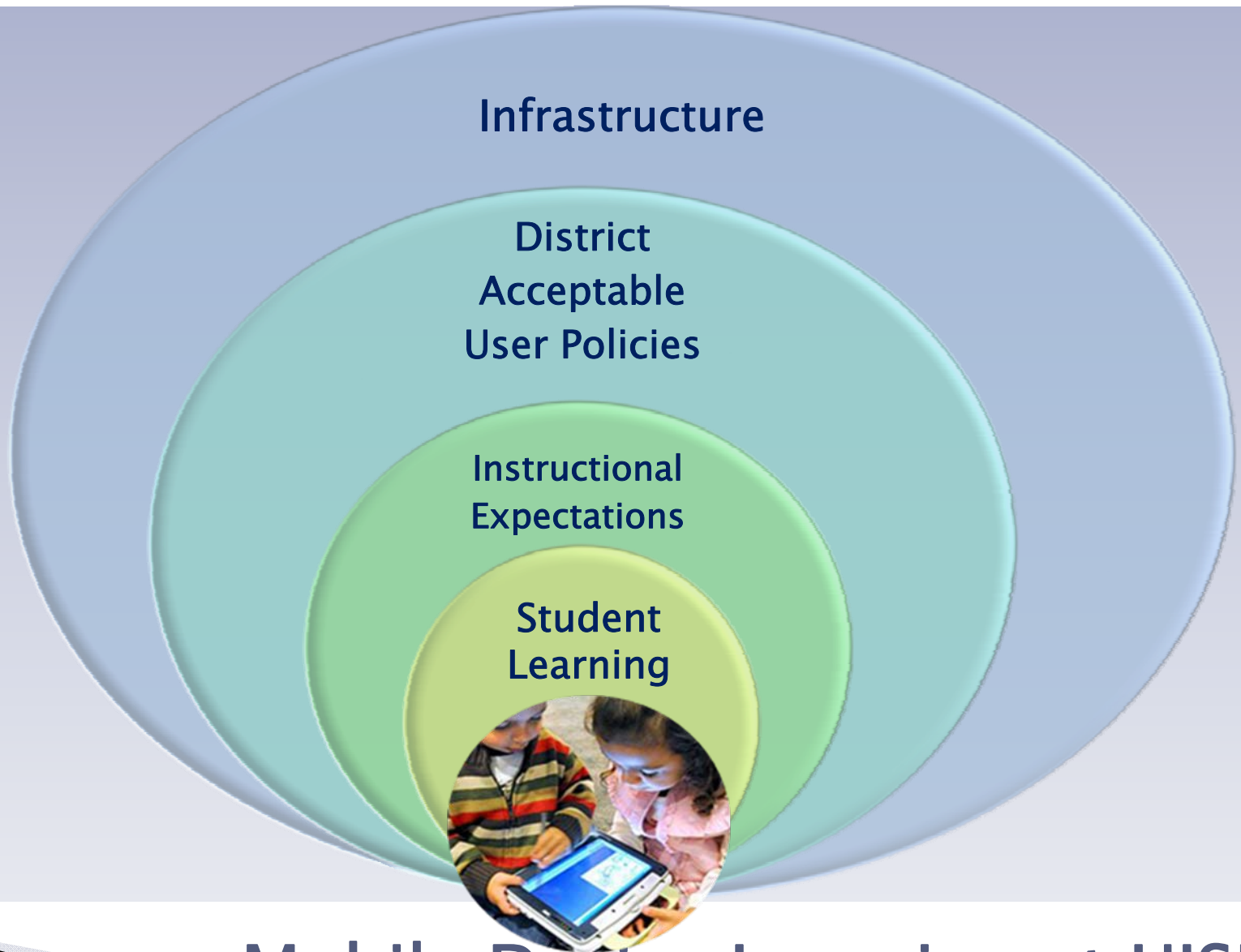
Ensure that all UISD educators and support staff have the knowledge, skills, and classroom strategies that will transform teaching and learning for the digital native learner.

- ▶ Provide professional development for teaching and integrating Technology Applications TEKS into all existing K12 curriculum.
- ▶ Deliver relevant ongoing professional development opportunities and support for all UISD teachers, administrators and instructional support staff.

GOAL 3: Infrastructure

Provide a high-performance infrastructure that takes advantage of innovative technologies, promotes ready access, and improves communication and collaboration.

- ▶ Provide access to all e-learning technologies through adequate wireless and broadband access
- ▶ Provide appropriately configured technology systems and processes which will promote student and staff safety and accountability, increased cyber security.
- ▶ Establish systems that maximize efficient use of technology and infrastructure by all students and staff.
- ▶ Maintain protocol for maintenance and updating of computers, network and other technology related equipment and infrastructure.



Mobile Device Learning at UISD



Project Development

2012–13 Research and Planning

**2013–14 MLD Summer & School Year Pilot Plan
District Wireless Infrastructure Plan**

2014–15 Gradual & Systematic Campus Rollout

Wireless Network Infrastructure

The following plans present options to address the present and future wireless infrastructure needs of the district. Plan selection will be based on the availability of funds.

Plan A – Provide 100% District-Wide Wireless Infrastructure \$4,000,000

40 Campuses + 3 Auxiliary Campuses

- Classrooms (Wireless Access Point can support up to 25 mobile devices)
- Gyms
- Admin Offices
- Parking Lot

District Offices

- Instruction
- SAC
- Service Center
- Brantley Hall
- Central Office

Project Cost – \$4,000,000

- E-Rate Application – Submission in process
- Average Cost per Classroom: **\$1500**
- District proceeds with project understanding reimbursement is pending E- Rate approval of application
- Reimbursement Amount : **\$2,139,000**
- Funding Time frame: Up to 2 years

Approval of this Plan includes:

- Funding
 - Non 90% Schools – District makes funds available as soon as April 2013
 - 90% Schools – District makes funds available July 1
- Time Frame for project completion: December 2013

Wireless Network Infrastructure

These plans will address the wireless infrastructure needs of the district. Plan selection will be based on the availability of funds.

Plan B – Priority Campus–Wide Implementation

- I. Identify Priority Campuses throughout the district
- II. Number of schools dependent on available funding
- III. Selection of Schools will be made by district administration
 - Elementary Average School Cost: **\$75,000**
 - Middle Average School Cost: **\$90,000**
 - High School Average Cost: **\$187,000**

Plan C – Priority Campus and or/Tech–Star Campus Classrooms and Work Areas

- I. Identify Priority Classrooms or Tech–Star Teachers on campuses throughout the district
- II. Number of teachers dependent on available funding
 - LEP, Dual Language, SPED
 - Teacher workroom, cafeteria, library
 - Average Cost per Classroom: **\$2,500**
 - Cost for 10 teachers per campus: **\$25,000**



Implementation Timeline

2013	Initiate Approved Wireless Infrastructure Plan
2013	Approved Summer MLD Pilot Program Begins
Fall–Spring 2013–2014	MLD Pilot Maintenance

Summer MLD Pilot – Elementary

- ▶ # of Schools: 4 Summer Sites – 8 Schools
*(AHS – Gutierrez/Clark) *(USHS – Ruiz/Salinas)
*(UHS – Kazen/Finley) *(LBJ – Prada/Arndt)
- ▶ Target Grade & Subjects: 1st – Math, Reading, Social Studies, Language Arts
- ▶ # Classroom per Site: 2 4 campuses with 1:1 & 4 sites with Centers
1 Class Set of 18 & 1 Center Set of 7
- ▶ Site Deployment Plan: 1 Classroom – Set of 18
1 Classroom – Center Set of 7
- ▶ Student Devices: 100 iPad Mini16GB @ \$500 =\$ 50,000
- ▶ Teacher Devices: 8 iPad4 16GB @ \$842 =\$ 6736
(Device, Protection Plan, Apps, Cover and Screen Protection and Teacher Units includes Instructional Accessories)
- ▶ Charging Strips: 24 Strips @ \$30.00 =\$ 720
- ▶ Total Elementary Summer Pilot Budget: \$56,736 + \$1,440 = **\$57,456**

Summer MLD Pilot – Middle

- ▶ # of Schools: 4 Summer Sites (9 Schools)
(LOMS,SGMS,LBVMS) (AGMS,USMS) (CMS,UMS) (TMS,GWMS)
- ▶ Target Grade & Subjects: 8th Science Pull Outs
- ▶ # Classrooms: 9 1per school
- ▶ Student Device & Cost: 95 iPad4 16GB @ \$654=\$62,130
- ▶ Teacher Device & Cost: 9 iPad4 16 GB @ \$842=\$ 7,578
- ▶ Device Covers (Gear Up Devices): 110 Student Cases @\$38=\$ 4,370
- ▶ Charging Power Strips: 27 Strips @ \$30 =\$ 810
- ▶ Total Middle School Pilot Budget: \$74,078 + \$810 = \$74,888
- ▶ Teacher Device Cost Includes: Device, Apple Care Protection , Screen Protection, Device Case, Instructional Accessories
- ▶ Student Devices Cost Includes: Device, Apple Care Protection , Screen Protection, Device Case

Summer MLD Pilot – High

▶ # of Schools:	2 Summer Sites (4 Schools) (AHS,UHS) (LBJ,USHS)
▶ Target Grade & Subjects:	9th Grade Biology EOC
▶ #Classrooms:	4 rooms 1per school
▶ Student Device & Cost:	100 iPad4 16GB @\$654=\$65,400
▶ Teacher Device & Cost:	4 iPad4 16GB @\$842=\$ 3,368
▶ Charging Power Strips:	12 Strips @ \$30 =\$ 360
▶ TOTAL Cost w Charging Strips	\$68,768 +360 = <u>\$69,128</u>

Summer MLD Pilot Summary

▶ Number Elementary Classrooms:	8		
▶ Elementary Cost per Classroom:	\$ 7,182		
▶ Elementary Summer Pilot Cost :	\$57,456		
▶ Number Middle School Classrooms:	9 (Purchasing devices for 5 campuses)		
▶ Middle Cost per Classroom :	\$14,978		
▶ Middle Summer Pilot Cost:	\$74,888		
▶ Number High School Classrooms:	4		
▶ High Cost per Classroom:	\$17,282		
▶ High Summer Pilot Cost:	\$69,128		
▶ Elementary	100 Student iPad Mini @ \$500	\$ 50,000	
	8 Teacher iPad4 @ \$842	\$ 6,736	
	24 Charge Strips @ \$30	\$ 720	\$57,456
▶ Middle	95 Student Units @ \$654	\$ 62,130	
	9 Teacher Units @ \$842	\$ 7,578	
	115 Cases (Gear-Up) @ \$ 38	\$ 4,370	
	27 Charge Strips @\$30	\$ 810	\$ 74,888
▶ High	100 Student Units @\$654	\$ 65,400	
	4 Teacher Units @\$842	\$ 3,368	
	12 Charge Strips @ \$30	\$ 360	\$ 69,128
Total		Summer Budget	<u>\$201,472</u>

Professional Development Plan – Summer Pilot 2013

- ▶ Summer Professional Development:
 - 8 Elementary 1st Grade Teachers
 - 9 Middle School 8th Grade Science Teachers
 - 4 High School Biology Teachers
- ▶ Summer Pilot PD Dates
 - May 27th – 6 Hr. Training Session
 - iPad District User Overview – Technology
 - iPad Basics
 - Integrating iPads into Summer Curriculum
 - June 8th – 2 Hr. Training
 - Q & A & Instructional Support (as needed)
- ▶ Atomic Learning – On-Line subscription service
 - Will provide teachers with 24/7 online access to video trainings on relevant instructional and technology integration topics.

Evaluation Plan – Summer Pilot 2013

▶ Evaluation Plan Expectations

- Measure Pilot's Instructional Value
 - Student Achievement
 - Level of Engagement
 - Attendance
 - Discipline
- Pilot's Infrastructure & Technical Support
 - Wireless Network Connectivity
 - Air Watch Administrator Reports
 - MDM Administrator Support
 - Device Technical Support (Work Orders)

▶ Evaluation Methods

- District Designed Instruments
 - Instructional Evaluation Forms
 - Classroom Observations
 - End of Pilot Evaluation

▶ Pilot Campus Observations

- Instructional Coordinators
 - Elementary – Math, Science, Reading, Writing
 - Middle – 8th Grade Science Pull Outs
 - High – 9th Grade Biology – EOC
 - Technology & Online Curriculum
- Instructional Technology Program Coordinators
 - Elementary – 1
 - Secondary – 2

▶ Summer Program Pilot Survey

- eChalk
 - Students,
 - Teachers
 - Administrators

▶ Instructional TV

- Record Anecdotal Program Remarks
 - Students
 - Teachers
 - Administrators



Project Development

2013–14

**MLD Pilot Program Maintenance
&
Wireless Infrastructure Completion**

2013-14 Pilot Maintenance

▶ Elementary

- **Plan A:** 8 Continue with participating 1st Gr Teachers at summer campuses
 - 4 schools with 1:1 devices
 - 4 School with Centers Sets of 7
 - No Additional Units will be purchased = \$ 0
- **Plan B:** 1 1st Grade Center at 26 schools
 - Add 30 Units @ \$500 = \$15,000

Middle

- 9 Continue with participating Summer 8th Gr Science Teachers
- 1 Classroom per Campus – Set of 30 student devices
 - Purchase additional
 - 5 iPad4 units per campus $9 \times 5 = 45$
 - 9 Charge Strips @ \$30 = \$270
 - 45 student units x \$654 + 9 Charge Strips = \$29,700

▶ High

- 4 Continue with participating Summer 9th Gr Biology Teachers
- 1 Classroom per campus –
 - Purchase additional devices to complete set of 30 student devices
 - 5 Devices per campus $4 \times 5 = 20$
 - 4 Charge Strips @ \$30 = \$120
- 20 Student Units x \$654 + 4 Charge Strips = \$13,200

Plan A: \$42,900

Plan B: \$57,900

Professional Development Plan

2013–2014 Pilot Maintenance

▶ PD Dates:

- July– August 2013 – Specific dates TBA
 - iPad District User Updates
 - iPad Basics – For New participating teachers if needed
 - Integrating iPads into School Year Curriculum

▶ Atomic Learning – On–Line subscription service

- Will provide teachers with 24/7 online access to video trainings on relevant instructional and technology integration topics.

Evaluation Plan – Pilot Maintenance 2013–14

- ▶ Evaluation Plan Expectations
 - Measure Pilot's Instructional Value
 - Student Achievement
 - Level of Engagement
 - Attendance
 - Discipline
 - Pilot's Infrastructure & Technical Support
 - Wireless Network Connectivity
 - Air Watch Administrator Reports
 - MDM Administrator Support
 - Device Technical Support (Work Orders)
- ▶ Evaluation Methods
 - District Designed Instruments
 - Instructional Evaluation Forms
 - Classroom Observations
 - End of Pilot Evaluation
 - Participating Student Test Scores
 - Compare scores of similar student groups
- ▶ Pilot Campus Observations
 - Instructional Coordinators
 - Elementary – Math, Science, Reading, Writing
 - Middle – 8th Grade Science Pull Outs
 - High – 9th Grade Biology – EOC
 - Technology & Online Curriculum
 - Instructional Technology Program Coordinators
 - Elementary – 1
 - Secondary – 2
- ▶ MOY and EOY Program Pilot Survey
 - eChalk
 - Students,
 - Teachers
 - Administrators
- ▶ Instructional TV – EOY
 - Record Anecdotal Pilot Program Remarks
 - Students
 - Teachers
 - Administrators

Summer & Maintenance Program

Device & Accessories Cost Breakdown

Elem Student Unit	Cost	Case	Apps	Protection Plan	Total
iPad Mini 16GB	\$329	\$42	\$50	2 yr-\$79	\$500

Secondary					
Student Unit	Cost	Case	Apps	Protect ion Plan	Total
iPad4 16GB	\$479	\$46	\$50	2 yr-\$79	\$654

Teacher Unit	Cost	Case	Apps	Protection Plan	Inst'l Accessories	Total
iPad4 16GB	\$479	\$46	\$50	2 yr-\$79	*\$188	\$842

*Instructional Accessories:

Apple VGA Adapter	\$29	(Connect EIKI to Elmo)
Apple TV	\$99	(Project Wirelessly from iPad)
Kanex ATV Pro	<u>\$60</u>	(VGA Adapter w Audio Support)
	\$188	



Instructional MLD Roll Out Plan Options

Instructional MLD Roll Out Plan –Model Summaries

I. District-Wide Plan

26 Elementary Schools + UDDH EC Center

- Four Year rollout includes:
 - Pre-K Classrooms with 5 Unit Centers
 - 27 Libraries – 1 (22) Cart Each

10 Middle Schools + Trautmann 6th Grade

- Four Year rollout includes:
 - 6th – 8th Grade Teacher & Student Unit
 - 11 Libraries – 1 (22) Cart Each

4 High Schools + United 9th Grade

- Four Year rollout includes:
 - 9th – 12th Grade Teacher & Student Units
 - 5 Libraries – 1 (22) Cart Each

Instructional MLD Roll Out Plan – Model Summaries

(continued)

II. SELECT Plan Summary

Cost will depend on how many Schools and Tech Star Teachers are selected

26 Elementary Schools + UDDH EC Center – \$6,889,030

5 Unit Centers for PK and 10 Unit Centers Grades K–5 and All Teachers and Libraries

- Four Year rollout includes:
 - Pre-K Classrooms with 5 Unit Centers
 - 27 Libraries 1 (30) Cart each
 - Tech Star Teachers with 10 Unit Centers
 - K – 2nd Grades – Years 1 – 2
 - 3rd – 5th Grades – Years 2 – 3
 - All Teachers with Units and 10 Unit Centers
 - K– 5th – Years 4+

10 Middle Schools + Trautmann 6th Grade – \$1,367,077

All 6th Grade LEP & SPED Students and All Teachers and Libraries

- Four Year rollout includes:
 - 6th – 8th Grade Tech Star Teachers
 - 11 Libraries 1 (30) Cart each
 - All 6th – 8th Grade Teachers
 - LEP & SPED 6TH Grade Student Units – 1009

4 High Schools + United 9th Grade – \$ 1,217,620

All 6th Grade LEP & SPED Students and All Teachers and Libraries

- Four Year rollout includes:
 - 9th – 12th Grade – Tech Star Teacher
 - 9th – 12th Grade – All Teachers
 - 9th Grade LEP/SPED & Student Units – 785
 - 5 Libraries 1 (30) Cart each

Instructional MLD Roll Out Plan –Model Summaries

III. FOCUS Plan

Average Cost For every 3 schools –1 per Level

Total # Campuses: 26 Elementary Schools + UDDH EC Center
9 Middle Schools + Trautmann 6th Grade
4 High Schools + United 9th Grade

Year 1 – Year 4

- Select Priority Campuses – Up to 10 per year until all the schools are covered
 - Campus selections will be made by district administration
 - Number of Campuses per year will be determined by available funding

Elementary Pre-K Average MLD Classroom Cost \$ 4,339 Pre-K Equipment available through Bilingual monies
Elementary School (Gr. K – 5th) MLD Average Cost \$ 407,490 Calculated on average # of classrooms per campus – 35
\$ 411,829

Middle School MLD Average Cost \$ 362,770 Calculated on average # of classrooms – 66
\$ 362,770

High School MLD Cost \$2,775,000
\$2,775,000

Resources

- ▶ What it Takes to Launch a Mobile Learning Program in Schools; <http://blogs.kqed.org/mindshift/2012/07/what-it-takes-to-launch-a-mobile-learning-program-in-schools/>
- ▶ Katy ISD Technology Plan, Katy Texas
- ▶ Scottsdale Unified School District, Scottsdale Arizona

QUESTIONS

