

**Mercer Island School District #400
Board of Directors Meeting**

June 12, 2014

AGENDA ITEM 1(a)(iv)

Technology Update

Jennifer Wright, Executive Director, Learning and Technology Services
and
Andreeves Ronser, Director, Information Technology

BACKGROUND:

Operational Expectation 10 (OE-10) states in part to:

“...Ensure that all instructional programs, including both content and practice, are regularly monitored, evaluated, assessed and modified as necessary to assure their continuing effectiveness;”

Since the passage of the first technology levy in 2002, the Technology Services department has been working to integrate technology into the 21st Century learning experience of our students. Through numerous partial monitorings of OE-9 and OE-10 and Learning and Technology Services Department updates, the school board has been apprised of those efforts. The following provides a summary of technology during the 2013-2014 school year and proposed plans for the 2014-2015 school year.

1-1 iPad PROGRAM

The 1-1 iPad program for grades 8th through 12th has continued to be transformational in the classroom. Teachers have embraced the technology, and are using it with students on a daily basis giving them another tool for personalization and differentiation as well as consistent platform for technology rich lessons. Ready access has allowed teachers and students to:

- investigate topics/facts in real time
- expand assignments beyond the written text and more importantly with audio and visual components (Pages, iMovie, Office HD, Notability, Show Me, Pic Collage)
- interact with the teacher regarding understanding (Quizlet, Socrative, Nearpod, Chalkboard)
- interact with textbooks and literature books in new ways (iBooks, Overdrive)
- use resources in more accessible ways (Learning Ally, text to speech)
- take notes and organizing assignments (Good Reader, Adobe Reader, Schoology)
- implement the ‘flipped classroom’ model (Educreations, Schoology)
- access teacher websites and online curriculum resources (Safari, Schoology)
- view and annotate microscopic images (EXO)
- annotate texts for complex text comprehension (GoodReader, Office HD, iBooks).

The move to a common platform has significantly reduced the problems associated with many different types of equipment in a room and the resulting myriad of troubleshooting required.

Professional development support for the program has been going. The professional development led by TOSAs and teachers, encompasses a wide range of opportunities including:

- Photography on the iPad, Stills and Video to Capture Student Performance
- NearPod Learn How to Create Interactive Presentations with Questions, Polls, Draw Tools and More with Real-Time Teacher Feedback
- Take Another Look at your Teacher iPad management, instruction, Schoology, data collection, photos and more
- Project your iPad Plus Student iPads from Anywhere with Airserver
- NCCE Inspiration: Websites and Apps Worth a Look
- Using Stora Books on Classroom iPads (K-2)
- 1:1 iPads at 5th Grade Start Thinking about Tools and Possibilities Ahead
- iPad Integration Apps and Projects to Try (elementary)
- Word Processing and Text Annotation App investigation and implementation
- Student and Teacher Video Presentations using iMovie and Explain Everything
- Collaborative Document Editing with Office365 Online

Instructional and technical support for the iPads are ongoing. Technology specialists work with students and staff daily on operating system and app issues. Devices are managed from a central location, and apps are updated and pushed out to specific classes. To date we have repaired 144 iPads and replaced 6 iPads which is well within our projected anticipated loss/repair calculations.

ADDITIONAL TECHNOLOGY INTEGRATION

Beyond the 1-1 implementation in grades 8th through 12th grade, technology integration continues at the elementary and middle school. Not only are systemic programs ongoing to support learning, there are also pilot programs in place as well as numerous examples of just-in-time technology integration support.

Major technology integration projects, supported by the TOSAs, have included:

- Pilot of additional 1-1 classrooms at 5th grade
- Implementation of iPads sets in K-2 including Common Core State Standards app support
- Support of Smarter Balanced field testing preparation
- Second year implementation of digital citizenship lessons at all grade levels required by Federal law
- Implementation of 5th grade system wide digital research skills sessions, including reliability and validity
- Implementation of the Confer app to help personalize learning
- Student specific anecdotal note keeping in support of Reader's and Writer's workshop
- Expansion and scaffolding of Word publishing skills in 2nd to 5th grades from simple forms to advanced features.
- Sharing of curriculum maps with tech integration ideas imbedded in cross-curricular units throughout the year
- Training on advanced management features and report tools in subscriptions including Dreambox and RAZkids.
- Modeling of best practice introducing iPad small sets and laptop routines and projects.
- Preparation for 1:1 iPad expansion to grades 5-7
- Investigation of student voting tools
- Limited pilot with Interactive Reading tools

- Research of best practice and tools for teacher and student video creation and hosting
- Using VoiceThread as a digital portfolio and reflection tool in the Art classrooms
- Oral History project in Global Studies in collaboration with King County Library
- Implementation of OneDrive student collaboration
- Audio recording in World Language classrooms

Technology professional development has been more than 1-1 iPad support and is ongoing as well. Some examples of integration support include:

- Free Online Tools: Spellingcity, XtraMath, IXL and more
- RAZkids Online Personalized Reading New Look and Features
- KidPix k-5 Student Projects
- Prezi Online Presentation Tools
- Brainpop Advanced Features
- Interactive Flipcharts with Inspire
- AIMSweb Data Groups and Views to find the Story Behind the Data
- iMovie & iPhoto Projects
- Noodletools
- Excel: How Tos and Integration
- Classroom Management and Digital Citizenship
- Discovery Education Implementation

OPERATIONAL SUPPORT

Beyond the extensive support required for the 1-1 iPad deployment, operational support has been ongoing though the school year. Network analysis continues to ensure adequate bandwidth and access for all district equipment. Significant Smarter Balanced Consortium Field Testing support was required and provided. Scheduled equipment (laptops and desktops) upgrades are being determined and will be implemented in the summer. The district currently supports 1237 laptops, 749 desktops, 2900 iPads, all network and wireless equipment, and district wide software (e.g. Office365, Skyward, Active Directory) with a staff of eight (six are school year only employees).

FUTURE FOCUS

As we look to the coming school year, plans are beginning to take shape for increased 1-1 implementation and other technology integration.

In order to expand the current 1:1 environment to include grades 5-7, we will utilize the same deployment process that was used for the 8th through 12th grade deployment. Prior to deployment we are refining our teacher and student images, upgrading the parent/student acceptable use agreement, and revising our policies/restrictions for student iPads in 5th through 8th grade.

Human requirements are expanding as well. Professional development already in place is continuing including the following:

- utilizing iPads in the classroom to augment the curriculum and optimize personalized learning
- developing and implementing formative assessment tools such as online quizzes/exit slips/feedback applications for teacher use in improving the learning environment
- creating curricular connections through individual student projects
- conducting appropriate research activities that support and enrich the curriculum

- evaluating internet sources

Professional development opportunities focused on 1:1 environments will be a focus of the August Technology Institute and continue throughout the school year. IMS and MIHS will continue to expand the ongoing professional development for staff as a result of the 8th through 12th grade 1:1 implementation. The Technology TOSAs will continue to provide significant support to teachers for their specific curriculum as they integrate 1:1 environments.

A final human resources requirement with the addition of the new devices is the addition of a new .6 FTE Technology Specialist position and funded through the capital levy.

While all 5th through 12th grade students will have access to a device, the best-instructional practices in all classrooms and learning environments will prevail. Utilization is still dependent on the professionally-trained teacher, using appropriate instructional technology to optimize learning.

Additional opportunities will be developed with our K-4 learners, including additional piloting of increased density and 1-1 classrooms, and equipment adds where appropriate to support individualization and 21st Century skill development.

Technology Services continually looks beyond the upcoming school year for potential technologies that support learning and integration in a variety of ways. We meet regularly with colleagues across the Puget Sound region to discuss implementation of 1-1 and other technology initiatives to learn from their experiences and update ourselves on 1-1 alternatives (e.g. Surface, Android, Cromebooks, etc.). Beyond equipment, active research by our staff include the areas of investigating programming opportunities for students, robotics, electronic curricular materials, and increased collaboration opportunities.

The goals of the Technology Services department have always been to create and then support 21st Century learning experiences for our students. These experiences are actualizing the 2020 Vision and allowing for more personalization and differentiation for all students in the Mercer Island School District.

RECOMMENDATION

This is a partial monitoring of OE-10 and informational in nature. Board action occurs during the normal monitoring cycle for OE-10, which is planned for the June 12, 2014.