

**MERCER ISLAND SCHOOL DISTRICT #400  
BOARD OF DIRECTORS MEETING  
September 27, 2012**

**Work and Deliberation  
Partial Governance Process Monitoring #1 (a)(iv)**

Board Policy 1800 – OE-10: Instructional Program and OE-9 Communication  
and Support to the Board

**Background**

Board members have requested a partial monitoring of OE-9 and OE-10, specifically on the progress being made on the One-to-One (1:1) computing device initiative. This partial monitoring is intended to update the board on a topic of the board's special interest.

**Recommendation:**

No action is requested, as this partial monitoring is intended to show ongoing compliance. If there are Board member questions of the probing nature, the Superintendent requests that board members contact him for more information.

# **One to One (1:1) Initiative Background and Future Action Plan Fall 2012 Update**

## **Introduction:**

A 1:1 computing environment is defined as a setting where every student has access to an internet-ready device that allows for web access, document access, and short response capabilities. This access can typically be achieved with a simple smart phone, iPod (or other similar device) with wireless access, or more robustly with an iPad, tablet or laptop.

This report and action plan focuses on secondary, but brings in relevant elementary actions as appropriate. Our ultimate goal is a more personalized learning environment for students, which we believe is supported in 1:1 environments.

## **Background:**

School district leaders began preparation for deploying a 1:1 computing environment following the passage of the 2010 capital levy. Following the necessary improvements to the infrastructure and the expansion of instructional technology coaches to begin the learning environment transformation, there has been an intensified focus on the human, technical (equipment) and infrastructure requirements for the implementation over the past 24 months. This update is not intended to be either all-encompassing or exhaustive; rather, it's an exercise in updating the board in order to show Operational Expectation (OE-9 and OE-10) ongoing compliance.

## **Infrastructure:**

Operational actions have focused on building the infrastructure necessary to support significant numbers of equipment on the network simultaneously. From an historical perspective, this started as far back as 1998 with the installation of a fiber connection between the Administration building and High School and 2006 with the fiber installation between Administration and Crest Learning Center. More recently, the fiber network was installed to provide a gigabit connection between the Administration building and the rest of the sites and the associated upgrade to the switching equipment that occurred this summer at all sites. Additionally this summer we installed an enterprise wireless system at all school sites, Administration and MOT.

## **Technical (Equipment)**

Equipping 1:1 pilots have been successfully launched in a number of secondary areas during the 2011-2012 school year including:

- 1:1 environments at IMS:
  - 8<sup>th</sup> Grade LA/SS and Reading Intervention classroom with iPads
  - 7<sup>th</sup> Grade LA/SS and Reading Intervention classroom with iPads
  - Two 8<sup>th</sup> Grade LA/SS classrooms with iPods
- 1:1 environments at MIHS

- Math classroom with iPads
- Chinese classroom with iPads
- Project cart of iPads used in Social Studies, World Language, CTE
- Multiple small deployment of 1:1 devices
  - Kindles at HS
  - iPads groupings in secondary math/science, SpEd, ELL, Art, LA/SS,

To support these pilots, and in general 1:1 use in classrooms, electronic resources that could be used in the classroom were cataloged, created student/teacher and deployed the materials with training. These included ongoing access to social studies, language arts and math curriculum, plus forays into online resource such as the pilot of The Choices for the 21st Century Education Program resources on Immigration.

### Human

Bringing the staff along in their understanding of the power of 1:1 computing has focused on professional development and supported integration.

Integration efforts have utilized existing technology highlighted at appropriate places over the past two to three years. To make an illustrative point, in August 2009, the use of handhelds (primarily cell phones, but also Nintendo DS and other handheld platforms) was modeled in a large group session at the Technology Training Day. It is important to note that while many of the staff did not even have texting ability at that point in time, a similar exercise just a year later at the August 2010 Technology Training Day netted much greater participation and a similar exercise in 2012, had many staff involved. As a learning organization, we model learning; hence, staff are moving forward with their own learning, knowing that students will always be ahead of them.

In 2011-2012, school year trainings were delivered to support the implementation of 1:1 pilot projects. These trainings were a combination of content for specific subjects and/or applications, as well as management of the resources while in the classroom.

### **Action Plan for 2012-2013**

The action plan for 2012-2013 continues these efforts with a goal of 1:1 ubiquitous access in 2013-2014 at grades 9-12. The plan has three components: infrastructure, technical (equipment) and professional development.

The following infrastructure and technical plans will be completed during the 2012-2013 school year:

- Upgrade the fiber cable between HS and Admin
- Continue 1:1 iPad classrooms from 2011-2012
- Expand 1:1 iPod pilot to all 8<sup>th</sup> grade LA/SS classrooms (this impacts ALL 8<sup>th</sup> graders)
- Leveraging student owned equipment, deploy additional handhelds as required to obtain a 1:1 on-demand environment at MIHS

More importantly, human development will focus on 1:1 environments including appropriate use, management, and support. Specifically, the Summer Technology Training Institute included:

- Handheld use was a component of opening keynote
- Workshops for staff on that day included:
  - Inviting cell phones into your classroom
  - QR Code Projects
  - Online Quizzes/Flashcards
  - TI Nspire Navigator
  - Google Tools

The two secondary Technology Integration Specialists will support ongoing Professional Development. This professional development is key to shifting teacher thinking regarding 1:1 use in the classroom. While many can see that this 1:1 initiative allows for a more personalized learning environment, they struggle with management issues, appropriate applications, and appropriate activities that add value to the learning. Specifically, the Technology Integration Specialists will lead trainings on:

- Managing handhelds in the classroom when 1:1 handheld devices optimize the personalized learning environment;
- Developing and implementing formative assessment tools such as online quizzes/exit slips/feedback applications for teacher use in improving the learning environment;
- Conducting appropriate research activities that support and enrich the curriculum; and
- Evaluation of internet sources

Additional effort will occur with the Technology Integration Specialists providing in class modeling of 1:1 use and ongoing significant support for teachers with resource identification and management.

**Action Plans for 2013-14 includes infrastructure, technical and human support:**

Beginning with the 2013-2014 school-year, every 9-12 student will have access to a 1:1 device in the form of a Bring Your Own Technology (BYOT) or in the form of a district-provided device as required by the situation.

Best-instructional practices in all 9-12 classrooms and learning environments will prevail, which may or may not utilize a 1:1 device. Utilization is dependent on the professionally-trained teacher, using appropriate instructional technology to optimize learning. Going forward, all instructional materials will be selected henceforth, based on providing the best tools for students with an expectation that all tools are digital when available; however, a transition from print to digital will take longer than one year.

Professional development for teachers will continue with focus on 1:1 strategies at both the Technology Training Day and ongoing classes with the Technology Integration Specialists.

Given that all rising 9<sup>th</sup> graders will have used 1:1 computing devices in 8<sup>th</sup> grade LA/SS, this will cause the 9<sup>th</sup> grade team at MIHS to be ready for receiving highly technology-literate students, accustomed to 1:1 access, and building on those strengths.