

DEPARTMENT OF TECHNOLOGY AND MEDIA SERVICES
Wilmette Public Schools

INFORMATION ITEM

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Superintendent of Schools

From: Adam Denenberg
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Subject: Technology Update

Overview

A technology update for the 2010 July Board of Education meeting highlighted the benefits of SMART Board usage for students and teachers. That report also discussed funding for district SMART Boards, staff development, and a plan for moving forward with this technology. Part of that plan was to gather data on SMART Board usage and teacher proficiency.

This report will provide an update on SMART Board resources, staff development, data gathered in teacher surveys, and a review of technology's role in supporting CONNECTED learning in District 39. A plan to monitor, support, and pilot new technologies in the district will also be recommended.

Shared Lessons on the SMART Community Website

With 200 SMART Boards in District 39 schools, it is hard to walk through any hallway without seeing teachers and students in classrooms engaged in SMART Board lessons. This level of technology integration requires support and resources for teachers. The SMART Community website is a key resource for District 39 teachers. Originally designed as a tool to explain the benefits of interactive whiteboard technology to the McKenzie PTA, the SMART Community website has evolved into a one-stop-shop for all Wilmette teachers. Teachers share their SMART lessons through this resource during early release and institute days, grade-level and department meetings, and through staff development classes. In the past year 800 new lessons tied to district curriculum have been posted to this site. These lessons can also be accessed through links on curriculum maps. Below is a breakdown of the number of lessons in each grade level.

Grade Level/ Department	# of Lessons	Subjects
Kindergarten	67	General, Reading, L.A., Math, Science
First Grade	181	General, Reading, L.A., Math, Science, Social Studies
Second Grade	151	General, L.A., Math, Science
Third Grade	112	General, Reading, L.A., Math, Science,
Fourth Grade	93	General, L.A., Math, Science, Social Studies
Fifth Grade	113	General, Reading, L.A., Math, Science, Social Studies
Sixth Grade	20	General, Reading, L.A., Math, Social Studies
Seventh Grade	60	General, Reading, L.A., Math, Science, Social Studies
Eighth Grade	48	L.A., Math, Science, Social Studies
Library	9	General, 1 st Grade, 2 nd , 3 rd , 5 th , 6 th
Music	54	K-4
Student Services	43	ELL- and modified lessons for all grade levels

This chart demonstrates a solid foundation of resources for teachers. Although sixth, seventh, and eighth grade teachers and librarians are creating SMART Board lessons, this data identifies them as areas to target additional online contributions.

Other SMART Community Resources

The SMART Community Website provides links to online instructional SMART videos on Internet resources such as Atomic Learning, SMART Technologies, and TeacherTube. There is also a section for teachers to share links to websites that make use of interactive touch screen technology, such as the National Library of Virtual Manipulatives. This site was developed by Utah State University and has over 100 interactive math manipulative applications. One such lesson allows students to sort base ten blocks on a SMART Board in order to solve computation problems. In addition, the SMART Community website provides tips on SMART Board usage, troubleshooting, handouts for staff development classes, and a link to the SMART Exchange website with over 9000 SMART lessons including many correlated to the Illinois Learning Standards.

SMART Board Survey Data

A SMART Board survey was administrated twice during the 2010-2011 school year to help determine ongoing staff development needs and to measure the frequency of SMART Board usage. Results indicated that teachers were already secure with SMART Board use and by the end of the year there were gains in almost every area surveyed. As highlighted in the 2011 June School Board Connected Update, end of the year survey results indicated that students are being provided opportunities to interact with SMART Boards on a daily basis by 70.2% of teachers. Also, 84% of District 39 teachers reported using SMART Boards to deliver instruction on a daily basis.

Additionally, three categories of proficiency identification were part of the SMART Board surveys this past year. Teachers were asked to self-rank their skills in the

areas of basic hardware and software skills (such as orienting the SMART Board and using the pen tray), intermediate software skills (such as cloning pages, grouping objects, and using the magnify tool), and advanced software skills (such as embedding a sound file and using the object animation tool). Mean scores for each area are below.

Level of Skills	Independent	Use with Assistance	Not yet using
Basic Skills	88.3%	6.1%	5.6%
Intermediate Skills	75.5%	13.2%	11.3%
Advanced Skills	39.2%	26.0%	34.8%

Results indicate that the majority of teachers are able to perform basic and intermediate SMART Board skills on their own and that future staff development should incorporate more advanced skills.

SMART Board Staff Development

The biggest challenge teachers reported for integrating SMART Boards into their instruction is the time to create, share and post lessons online. The district will continue to provide training to new teachers and ongoing support for current teachers through Academy 39. Our Academy offers training through four differentiated strands: Level 1, Level 2, Make and Take, and Bells and Whistles. To accommodate varied scheduling needs, staff development classes are provided through the following venues:

- Weekends
- After school
- Lunch and Learn Classes

Since last July’s technology update, twenty-three of these SMART Staff Development classes have been offered outside of the school day. Additionally, classes are presented during breakout sessions at Institute and Professional Development Days. Teacher planning time, faculty meetings, early release days, and collaborations are also used for these purposes. Further, training is being provided for paraprofessionals so that they can support instruction. Finally, with this technology being seamlessly integrated into instruction, teachers are beginning to leave lesson plans for substitute teachers that require a few entry-level SMART Board skills. This indicates a need to explore future staff development for substitute teachers.

Technology’s Role in CONNECTED Learning

Technology is one important tool teachers are using to incorporate components of CONNECTED learning such as communication, collaboration, global perspectives, and teaching and learning styles into the curriculum. It allows differentiation of instruction as online content and digital projects can be modified for all levels of learners. In addition to receiving instruction and interacting with SMART Boards, students are using electronic resources in every grade level to conduct research, collaborate, and demonstrate learning by sharing and presenting their work. Among

the technologies used to deliver some of these CONNECTED learning components are Web 2.0 applications and resources. Below is a list of some of these tools and a short description.

Web 2.0 Resource	Skills	Description
Boolify	Research	Manipulative mental model for Boolean Web Search
Delicious	Research, Collaboration	Online storing, sharing, discovering bookmarks
EasyBib	Research	Online citation guide for students
KidsClick	Research	Search engine customized for kids and created by librarians
VoiceThread	Collaboration, Presentation	collaborative multimedia slideshow
GoogleDocs	Collaboration, Presentation	Online collaborative word processing, presentation, spreadsheets and more
Podcasts	Collaboration, Presentation	Digital media files shared online
Wikis	Collaboration, Presentation	Collaborative website creation and editing tool
iMovie	Collaboration, Presentation	Video creation tool
Prezi	Collaboration, Presentation	Online collaborative presentation tool
Skype/iChat	Collaboration, Global Learning	Video conferencing tool to collaborate with authors, politicians, distant grandparents, scientists, etc.

New Technology Tools

In addition to SMART Boards, computers, digital cameras, and video cameras, District 39 teachers are integrating other technology tools. These newer tools include document cameras to display books and objects on a large screen, interactive response sets to gather rapid student data, and SMART slates that wirelessly connect to SMART boards from various locations around the classroom. The newest tools being used in some of the schools are handheld mobile technology devices including iPod Touches and iPads. These devices are being used to introduce mobile technology applications (apps) that reinforce and enhance curriculum. For example, there are eight Everyday Math apps developed by McGraw-Hill that reinforce math skills and many LAZ Read Smart apps that help improve reading comprehension and fluency skills. Like the SMART Community website, an online district resource has been created for teachers to share and evaluate apps. This resource will continue to be developed with the goal of growing into a comprehensive resource to support teachers using these forms of technology.

Community Learning Events

To showcase and train community members on CONNECTED learning occurring in the district, two elementary schools provided evening events. On April 27th McKenzie School hosted the “Technology Night: 21st Century Learning in Action,” an evening for parents and students. Breakout sessions included topics such as

Contemporary Curriculum, Podcasting, SMART Notebook, iPods, Blogging, and Raz-Kids. Parents and students were surveyed at the conclusion of the evening and results indicated that 100% of participants said the event increased understanding of the expression “21st Century Teaching and Learning” and that the night met or exceeded their expectations. Feedback also indicated that parents enjoyed having a hands-on look at technology with their children, while students enjoyed showing their parents what they learned with various showcased technologies.

Central School also hosted a technology night on January 21st. Attendance for this event filled up quickly! The evening focused on providing resources for ways in which applications available on hand-held devices can be used to support instruction at school and even at home. The breakout sessions focused on showcasing math, literacy, and study skill apps being used by Central teachers. Each session was led by a staff member or administrator and began with a short demonstration of the highlighted apps. Sessions concluded with question and answer time as well as time for children to explore these apps alongside their parents. Feedback was positive for this event and interest was expressed for having similar events in the future.

Events like those at McKenzie and Central provide hands-on training for the community, familiarizing parents with technology being used to facilitate CONNECTED learning opportunities for students. Similar evenings will be explored in the future.

Monitoring Technology

The district will continue to survey and evaluate the use of technology tools and resources. Surveys will be administrated on SMART Board and mobile technology usage. The technology department will continue to monitor educational websites, attend webinars and conferences on technology and 21st Century Learning, collaborate with innovative teachers, and network with other 21st Century educational leaders. The Department of Curriculum and Instruction and the Technology Department will continue to be involved in training, decision-making, and implementation with new technology resources and devices. One current area being researched and monitored is finding management tools for iPod Touches and iPads and locating apps that allow interaction between these devices and SMART Boards.

This past year a joint venture funded by a District 39 Educational Foundation Gripp Grant titled “iPad, Therefore iLearn,” and ARRA grant money allowed the district to bring in new iPads for ELL, early-childhood, and comprehensive-need students. In the Comprehensive class these devices are able to consolidate many assistive technologies into one device, provide for differentiated needs, and allow access to curricular content. Some other targeted areas for this grant include composition of written material, communication, executive functioning, and social emotional learning. Teachers are meeting on a regular basis to discuss these applications and are using an assessment tool to evaluate each app being used. In the ELL and early-

childhood settings teachers have similarly been researching appropriate apps and integrating them into their curricular areas. The Technology Department will continue to monitor these projects with the Department of Special Services.

Recommendations

In conclusion, this is an exciting time for technology integration in District 39 and its role supporting CONNECTED 21st learning. With a sound equipment and network infrastructure, the monitoring and introduction of new technology tools, and a strong base of creative and impactful teaching, the district is positioned to leverage innovative technological tools to enhance district curricula and provide CONNECTED learning opportunities for students in the years ahead.

Moving forward four recommendations are being presented.

1. The departments of Curriculum and Instruction and Technology will continue to monitor SMART Board usage and staff development needs through surveys and teacher feedback.
2. A Mobile Apps Community Website will be developed to provide a comprehensive resource for teachers incorporating mobile technology devices into their instruction.
3. Launch a pilot program with a cart of iPads at one elementary school, the middle school, and the junior high. The purpose will be to evaluate the benefits of these devices and determine if and when future expansion is appropriate. Some of the potential benefits of these devices include:
 - Access to a growing wealth of apps with engaging educational content that enhance and support curriculum.
 - Students can continue to access information with an intuitive tool in which many of them are already familiar.
 - Long battery life, small size, and lightweight features enable these devices to be used in different learning environments such as gyms, science labs, auditoriums, cafeterias, or even in outdoor classrooms and gardens.
 - The ability to accommodate individual learning styles such as voiceover features and closed-captioning to assist the hearing impaired, language translation tools for English language learners, multi-touch interface for physical or motor skill development, and more.
 - Consolidation of resources into one device such as a video camera, a video player, voice-recorders, dictionaries, calculators, e-reader, newspaper reader, video conferencing, maps, voice dictation, music composition, and more.

To prepare for this pilot, a two-day staff development on iPads was provided last May for members of the Department of Curriculum and Instruction, the technology and library department, differentiation teachers, and various grade level teachers.

Some additional implementation steps will include:

- Providing regular staff development dedicated to evaluating apps, discussing best-practices, and collaboration.
 - A requirement to review plans for iPad use with technology teachers or librarians prior to using them with students.
 - An evaluation process for apps upon completion of lessons.
 - Use of the Mobile Apps Community Website (mentioned above) for collaboration and support during this program.
4. Expand community evening events to inform and instruct about the role of technology in providing CONNECTED learning in the district.

**Recommended for presentation
To the Board of Education**



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