iPad 1:1 Review Summary

Introduction

In December 2012, the Superintendent and learning services team moved forward with a 1:1 program as part of a long-range plan to leverage the use of instructional technology in the areas of *personalization* and *ownership of learning*. These were untested theories about the use of 1:1 devices that we had piloted in the school for approximately two years earlier. The pilots went generally well and our initial plan was to bring a1:1 device to all high school students and 8th grade.

The school district team selected the iPad as the device in lieu of another device notwithstanding a "Bring Your Own Device" program that was circulating in the literature at the time. As previously stated, the overarching goals of the program were to increase personalization and differentiation in the classroom utilizing a consistent platform, specifically creating a more personalized learning environment where student-centered education is responsive to students' strengths and learning styles, interests and passions. Initial staff training was held in winter 2013, with student iPad distribution to 10th and 11th grade students in the spring of 2013. This large-scale distribution afforded the team with learning about logistics and other student matters around 1:1 instructional technology devices. Further expansion of the program has occurred each successive year to a 1:1 device in grades 4 through 12 for the 2015-2016 school year, consequently expanding our personalized learning environment.

During the 2014-2015 school year and at the Superintendent's request, an outside review of the program was initiated given the lack of empirical data in the literature, utilizing two educational researchers from University of Washington – Tacoma, Jarek Sierschynski, Ph.D. and Marcy Stein, Ph.D. Their program review was completed in August 2015 and the full review is attached.

The stated objective of the review was to determine the impact of students having a 1:1 device in all areas of the student learning process with a special emphasis on several elements of Board Policy 2020 as outlined below:

- Encouraging and enabling students to be academic entrepreneurs and risk-takers who can choose to pursue academic passions and interests beyond traditional curriculum and beyond the traditional classroom (Fundamental 4).
- Create a more personalized learning environment where student-centered education is responsive to students' strengths and learning styles, interests and passions (Fundamental 1)
- Cultivating and foster thinking and process skills such as analytical and critical thinking, cross-discipline thinking, creativity … (Fundamental 3)
- Maintaining the highest standards in the areas of … social studies, … (Fundamental 2).

In the year-long effort to monitor all of the six (6) now seven (7) fundamental, it became apparent that bringing in academic researchers might assist the learning services team with approaches and models for future monitoring. However, that does not appear to be the case as outlined in the paper submitted by Jarek Sierschynski and Marcy Stein.

After careful review of the report, Learning and Technology Services is presenting the following narrative and action steps in light of past experience, current practices and future thinking. Additionally, we present some thoughts where our actual experiences contradict the report's recommendations.

Instructional Practices Supported by the Report

The first significance finding of the research is that the tool (iPad) is being used by students and teachers:

> *"At first, it is important to state that the teaching staff and students in the Mercer Island School District at all grade levels (as a group) appear to be very comfortable with using the iPads in their classrooms. This was evidenced when we visited all of the schools and observed both teachers and students as well as in the teacher and student surveys. No doubt, this success can be attributed to the willingness, openness of the teachers and the continuous support of the TOSAs. The level of comfort around the devices should not be viewed as a trivial matter and ought to be acknowledged as a great success by the MISD community." (pg. 11)*

As indicated in the report, the technology tool is irrelevant if there is not first good teaching in the classroom. From the beginning of the 1:1 initial, the Superintendent and member of the learning services team have all echoed that fact. No tool replaces a great teacher and no great teacher can be replaced with a machine. However, utilizing our technology specialists, Teachers on Special Assignment (TOSAs) who are master teachers themselves, we have been able to support, guide and change many teaching practices that better support student learning. The coaches' *just in time support*, whose model is highly regarded in the literature, have been critical to the implementation of a different type of "always on" tool.

Professional development has been a cornerstone of the 1:1 iPad implementation and without which the implementation would be surface level. Teachers are required to attend the Tech Training Day and at least two professional development workshops during the school year each year. All workshops focus on student learning and the technology tool that complements the content, whether it is more student choice in outcomes, greater differentiation or more engagement or efficiency in presentation of the material. Some examples from the recent Tech Training Day include using iPads for creation with young students, Formative assessment using technology, Video creation for "showing what you know" and Portfolio creation. The TOSAs, on a daily basis, also provide the just-in-time support necessary to all teachers including modeling, coaching and side-by-side instruction.

The researchers concluded that best practices must be shared, and through the TOSA model, we do just that. In addition, the district already supports a curriculum repository, available to all teachers, of exemplary lessons and units of study developed and implemented by MISD staff. All teachers contribute to this annually, and the TOSAs continually update with additional lessons and units to provide examples to the school community.

The researchers support focusing the scope of the iPad implementation to efficiencies gained by the tool use. While we don't agree that the iPad implementation be only be only about efficiency, we do understand that we need to be careful in its selection of iPad apps available to teachers and students. This careful review prior to placement in our app catalog is designed to limit the scope of tools to the best resources available and ones reflective of teaching and learning principles within the 2020 vision. With more than 150,000 educational apps in the iTunes app store, one could easily be overwhelmed and might select apps for misguided reasons. This limiting already serves as an initial focus for promoting best practices.

A reoccurring theme of the report suggested strengthening the definition of the iPad as an academic tool. We agree. Ongoing efforts in this area include filtering of the MISD network, eliminating the ability of Grades 4-8 students to download apps outside the school catalog, ability for parents to ask for filtering off site for their student's iPad (available since the inception of the program) and ability for parents to opt in to "in school use only" for their student's iPad. We do not view the iPads as a 21st century way to avoid classwork or avoid tedium. Instead, the iPad was selected to allow students to find unique ways to demonstrate their learning and to find more personalized ways to help children learn a particular concept educational objective.

Shorter and Longer Term Action Steps Supported by the Report

Additional work will be done with the curriculum repository, organizing lessons and units that are iPad specific and that are considered anchor projects and/or practices. These items will be easily searched and retrieved for greater access by teachers. By our definition, anchor projects are those projects that are consistently utilized across a given grade level or subject area and anchor practices are those lessons/units that are consistently used. Simple examples include the school wide use of Schoology at IMS or when students have the option to explain orally their understanding they use the app ExplainMe.

Several actions have already been or will be implemented that further define the iPad as a school tool and the appropriate use in that context as highlighted in recommendation #3. At the suggestion of the Technology Advisory Group, a simple summary of the iPad expectations was developed and widely distributed with the iPads. Additionally, the middle school and high school TOSAs plan to work with their respective building administrators to determine parent education needs around the iPad as a school tool and delivery methods of that information.

Parents have voiced concern about how to manage their child's iPad at home. Already, parents, through the expectation summary, have access to resources to limit/filter internet connectivity. This should be more widely distributed. Additionally, future work includes greater distribution of control and "school use only" options to parents, and parent education regarding possible home device use agreements.

Additionally, it is clear in reading the open-ended responses that many parents do not know what the iPad is used for in classroom or how it is expected to be used for at home. This will required greater parent education about iPad educational uses, a focus for 2015-2016.

One additional consideration tied to the iPad as a school tool to be investigated in 2015-2016 is the current high school student access to the iTunes catalog. Data can easily be collected regarding app download and then analyzed for purpose and educational appropriateness. It is important to note that while the students currently have app catalog access, due to management settings on all iPads they cannot download inappropriate apps or material, even when off site.

Additional Considerations and Areas for Further Contemplation

The report relied heavily on qualitative, perceptual data for its analysis, which raised some concerns and drew some conclusions that did not match our lived experience.

One example is our concern with the analysis is in relation to our elementary teachers. The numbers are small in the 2013-2014 school year, as there were only four (4) 1:1 classrooms in the district. Although small numbers, the researchers used these to indicate very short-term trends that may not be valid or may not be reality. We are concerned that there was no discussion of the reliability and validity of the data in light this situation where the N's were small, and we wonder about the some of the other analysis.

The report does highlight the reluctance of the high school staff to implement the iPad in their classrooms because of perceived student distraction. What is not addressed is that students can be distracted even if there isn't an iPad present, such as scribbling with writing tools or daydreaming. Is the distraction greater with the iPad or just more visible? In open-ended responses, students spoke of their classmates being distracted, but pointed out that students are distracted by many items. Interestingly enough, many students asked that their access to games be even more limited, so that they could be less tempted to be off-task.

Limitations and Delimitations

During our district analysis of the report we noticed that the authors of the report did not address any limitations or delimitations of the study. We feel this shortcoming needs to be highlighted and has been considered in our commentary below.

The broad range of student ages and grades as well as the gradual roll-out of the 1-1 iPad initiative limits one's ability to make broad generalizations about learning practices across the spectrum of grades. We recognize that students, depending upon their age and entry into a 1:1 classroom environment, have varying ranges of experience with the iPads. Therefore, their perspectives and opinions vary greatly and should be taken into account as we interpret the results.

The researchers' solution to parents concerns about at home monitoring was limited by the dichotomous approach to the study. In short, the design of the study focused on parents, staff, and students as isolated entities and did not provide space for the three stakeholder groups to interact. The report recommends we consider curtailing the take home use of the iPad, but this is a conclusion made only from the perspective of parent reports. This highlights the point that the report was not able to show how the iPad as a tool serves purposes that each group would not necessarily appreciate through their own lens. For example, we have found through our actual experience that if a student does not have home access to the device, the level of use during the day drops significantly, especially if the iPad is not seen as a tool where work can be started and then completed at home.

Our 2014-2015 6th grade iPad model was in-school use only, and after review of that implementation, we made the conscious decision that 6th graders would be allowed to take the iPad home this school year. To overcome this limitation, we hypothesize that we need to be more explicit in our communication with each stakeholder group about the tool's importance across learning environments.

Conclusion

The school district currently has nearly 3000 iPads in 1:1 settings in 4th through 12th grades. The review was not able to definitively determine the impact of iPads in the classroom but did find areas to celebrate and areas for improvement, which will be pursued. We confirmed that iPads are used with ease by teachers and students alike to support teaching and learning on a daily basis. As the implementation continues, the Learning and Technology Services team plans to continue to focus on areas where iPads can be utilized to enhance the learning process. The district receives high marks and accolades from the state and national press. Clearly student outcomes are high and what is not determined is the degree to which our instructional designs using instructional technology may be contributing to this affect.