**Results: The iPad Project - Enhancing Learning Projects 2012/2013**

**Title**

The iPad Project

**Participants**

197 Students

Jocelyn Tessemaker, Grade 5 Teacher

Debbie Durance, Grade 4 Teacher

Kwyn Maxwell, Grade 4 Teacher, Intermediate Team Leader

Julie Hamilton, Grade 2 Teacher

Jessica Crean, Grade 2 Teacher

Colleen Bratzer, Grade 1 Teacher

Deb Walasek, Grade 2/3 Teacher

Sandy Smith, Grade 1 Teacher, Vice-Principal

Don Adams, Kindergarten Teacher, Primary Team Leader

Mike Phelan, Principal

**School**

Oaklands Elementary School

**Our Goal/Rationale**

Oaklands Elementary School has recently acquired 26 iPads. Staff and students are very excited about their use to support learning.

iPads will be used by teachers to support instruction and student learning. Students will be more actively engaged in learning and will successfully use iPad applications to support their learning. iPad applications will be used to differentiate curriculum, teaching, and learning in ways to meet the needs of individual learners. Student performance in Literacy and Numeracy will improve.

**Our Question**

How can we use iPads effectively to support student achievement in Language Arts and Mathematics and to meet the diverse needs of students in our school?

**Our Approach**

Participants in the iPad Project will:

* collaborate with other teachers at the school and in the school district
* develop and implement a Mini iPad Project to address the needs of students in their classroom(s). These plans will include: (see attached)

- a goal

- an inquiry question

- measurable outcomes

- an approach

- results

* work with Primary and Intermediate Team Leaders to develop a comprehensive iPad plan for Oaklands School
* work with the Primary and Intermediate Team Leaders to report out on the Mini iPad Projects and on the comprehensive iPad plan for Oaklands School

Funds will be used to provide release time for teachers allowing them to work together on this project. The Primary Team leader and the Intermediate Team Leader will work together. They will collaborate with teachers in other schools who currently use iPads. They will also support teachers at Oaklands Elementary who participate in this project. Release time for teachers to plan for and evaluate the use of iPads is a key component to this project's success.

**Measureable Outcomes**

The results (measureable outcomes) for each Mini IPad Project will be reported out. The effect of the project on student performance will be the primary focus of this reporting.

In addition, participants will meet to discuss the success of their projects. We will look for new learning, common ground, and challenges as we answer the question, “How can we use iPads effectively to support student achievement in Language Arts and Mathematics and to meet the diverse needs of students in our school?”

**Our Work So Far**

Staff met on September 17, 2012 to begin implementing the IPad Project. Key roles and responsibilities were defined and a timeline was developed. The notes from this session are attached.

**Results**

Initially, three Mini iPad projects were developed by teachers. These projects and their results are presented in Table 1.

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| Table 1Enhancing Learning Projects 2012/2013: Mini iPad Projects |
| ***Enhancing Writing with iPads*** |
| **Participants** | **Goal/Rational** | **Question** | **Approach** | **Outcome** | **Results** |
| * *Julie Hamilton, teacher*
* *5 Grade 2 students*
 | * *To use iPad writing and drawing apps to enhance student writing skills.*
 | * *Does the use of iPad writing (book creator/story patch) and drawing apps (doodle buddy/drawing pad) encourage students to engage more effectively in writing activities?*
 | * *Students will practice using the iPad drawing apps, so they are comfortable using them with their writing activities on the iPads.*
* *Student participants will engage in personal writing activities using conventional methods (paper, pencil and colouring tools). A sample personal writing piece will be collected for a baseline of each student’s writing level.*
* *Student participants will use iPad writing (book creator/story patch) and drawing apps (doodle buddy/drawing pad) in personal writing activities.*
 | * *The results of this project will involve comparing student participant’s personal writing activities using conventional methods to their personal writing activities using the iPad writing and drawing apps.*
 | **What did I learn?*** *On first use of the iPads I had my students use two drawing apps that enabled them to be very creative and productive. They did not however connect with the writing app I was using – Book Creator, since we did not have wireless connectivity. Lack of wireless internet also made it impossible to import images (i.e. from Google images) that would have enabled students greater flexibility and creativity of their writing.*

**How was student learning and engagement improved?*** *In the end students used the iPads to take pictures and then used these images in their writing. They were very engaged and used the various tools to write, edit (text styles and words), import and resize pictures to create their books.*

**What direction will I be taking next?*** *The process of this project did show that the students were very engaged when working with the Book Creator app on the iPads. I have however found that due to the lack of wireless, inability to easily transfer projects be worked on computers in the lab and lack of security of the projects (student projects are open to anyone else who uses the same iPad), I am not continuing with the project at this time. Once there is wireless use I would like to try this project again.*
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| ***Using iPads for Self-documentation, Reflection and Assessment During Hands-on Learning Projects*** |
| **Participants** | **Goal/Rational** | **Question** | **Approach** | **Outcome** | **Results** |
| * *Deb Walasek, teacher*
* *Grade 3 class of 23 students*
 | * *To enhance a student’s ability to reflect, self-assess and document during a construction project or experiment*
 | * *I will have the children work with video documentation using iPads. Will this practice enhance the student’s ability to self-assess and reflect during their construction project, or experiment?*
 | * *I will have the children complete several construction projects with pen and paper reflection tasks and then I will use the iPads with video documentation and reflection.*
 | * *I will use a rubric assessment tool to compare the level of reflection between the two types of self-assessment.*
 | **What did I learn?*** *Using iPads to record student work in progress was problematic. Students were involved in hands-on projects that used papier mache. There was some concern about using iPads in this environment.*

**How was student learning and engagement improved?*** *Students were interested in the iPads but also wanted to participate in the construction activities. In the end, the iPads were not used in these activities.*

**What direction will I be taking next?*** *The teacher needs more time to consider options for using iPads to support instruction and assessment.*
* *Students need instruction and practice time to learn about the iPads' recording functions.*
* *In a similar activity, a recorder could be appointed for the group or recording could be completed after the construction is complete.*
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| ***Writing When You Can’t Write*** |
| **Participants** | **Goal/Rational** | **Question** | **Approach** | **Outcome** | **Results** |
| * *Sandy Smith, teacher*
* *Class of Grade 1 students*
 | * *To produce a written story using an iPad and voice recognition and word prediction apps.*
* *To practice editing skills using an iPad and voice recognition and word prediction apps.*
 | * *Can the students create a small story using voice recognition and word prediction software before they become “typical Writers”*
 |  | * *The students will each produce a small book.*
 | **What did I learn?*** *On first use of the iPads I had my students use two drawing apps that enabled them to be very creative and productive. They did not however connect with the writing app I was using – Book Creator, since we did not have wireless connectivity. Lack of wireless internet also made it impossible to import images (i.e. from Google images) that would have enabled students greater flexibility and creativity of their writing.*

**How was student learning and engagement improved?*** *In the end students used the iPads to take pictures and then used these images in their writing. They were very engaged and used the various tools to write, edit (text styles and words), import and resize pictures to create their books.*

**What direction will I be taking next?*** *The process of this project did show that the students were very engaged when working with the Book Creator app on the iPads. I have however found that due to the lack of wireless, inability to easily transfer projects be worked on computers in the lab and lack of security of the projects (student projects are open to anyone else who uses the same iPad), I am not continuing with the project at this time. Once there is wireless use I would like to try this project again.*
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In March 2012, an additional project was developed in response to information received about the Mathletics Program. This initial project is described in Table 2.

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| Table 2Mathletics Pilot – Initial Project |
| ***Mathletics Pilot – Initial Project*** |
| **Participants** | **Goal/Rational** | **Question** | **Approach** | **Outcome** | **Results** |
| * *Deb Walasek, teacher*
* *Grade 3 class of 23 students*
 | * *To enhance my student’s performance in math*
* *To increase my student’s interest in math and math homework*
 | * *If the student use the Mathletics Program in the class (paper program), in the computer lab and at home, are they more engaged in learning mathematics? Are they more independent? Did their skills increase?*
 | * *I began the Mathletics program in January 2013. I will compare the results I had in Term 1 with the results from Term 2.*
 | * *I will use the student’s marks from Term 1 and compare them with Term 2 marks.*
 | **What did I learn?*** *The children in my class expressed more interest in math when we switched to Mathletics. They enjoyed the group computer lab time more than the workbook time. The workbooks partner well with the online practice and the children can build confidence with the skills.*
* *The Mathletics Results Reports helped me to target the children who did not understand the skill, so I could give them 1:1 support.*
* *I found a decrease in the number of children who were not yet meeting or minimally meeting and an increase in fully meeting and exceeding.*

**How was student learning and engagement improved?*** *The computer marked the kids as they went through he exercises, so they could tell whether or not they were successful at a skill and could ask for help.*
* *I was also easily able to increase the level of difficulty for my advanced students to prevent boredom.*
* *Children were able to start exercises at school and finish them at home online.*
* *More children were completing homework and I was able track completed assignments easily.*
* *The children really enjoyed the online races and these developed computation skills.*

**What direction will I be taking next?*** *I would like to continue working with this program.*
* *I now have a very good understanding of the program and all its components and feel I could be even more effective with this tool next year.*
* *In order to increase this project and include other classes, we would need increased access to computers or wifi for the iPads.*
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The response to this initial project was favourable with students and parents reporting increased interest and motivation in students. A group of parents not involved in the project requested involvement for their students. Working with the Parent Advisory Council, a secondary project was developed. This project and its results are described in Table 3 and 4.

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| Table 3Mathletics Pilot – Secondary Project |
| ***Mathletics Pilot – Secondary Project*** |
| **Participants** | **Goal/Rational** | **Question** | **Approach** | **Outcome** | **Results** |
| * *Sandy Smith, teacher*
* *Deb Walasek, teacher*
* *Amanda Turner, parent*
* *Don Adams, teacher*
* *Parents*
* *Students*
 | * *To enhance student performance in Mathematics.*
 | * *Will using the home component of Mathletics increase student motivation, engagement, self-direction, and achievement in Mathematics?*
* *Should the Oaklands School community continue and/or expand the use of Mathletics?*
 | * *This project was developed in response to parent and student interest in Mathletics resulting from a pilot project using the program in Division 8.*
* *Through the Parent Advisory Council, the parents of students will be invited to participate in a pilot project using Mathletics at home. All students and parents will be invited to participate.*
* *Parents will attend an introductory seminar on Wednesday, February 20, 2013 to receive information about Mathletics and the pilot project. The children of parents who agree to participate in the project will be enrolled in Mathletics upon receipt of$ 15.00. Students will be enrolled at the level corresponding to their current grade placement.*
* *Sandy will be responsible for enrolling students and assigning each to the correct level.*
* *Students will complete activities at home under the supervision of their parents.*
 | * *As a formative measure of the project impact, a survey about student motivation, engagement, self-direction, and achievement will be developed for students and parents to complete in May 2013. The information collected will be combined with similar information from the pilot project in Division 8 and used to make a decision about the efficacy of continuing Mathletics in September*
 | **What did we learn?*** *Students and parents are interested in exploring technologically-assisted learning for the children.*
* *Mathletics supported student success in Math.*

**How was student learning and engagement improved?*** *Students who participated in Mathletics reported they were more interested in math (78%) and wanted to do more of it (59%).*
* *Parental opinion about student motivation and interest was mixed*
* *Students reported they were more independent in math (74%) and that they were better at math (80%).*
* *Parents were unsure about improved student independence (54%) and achievement (64%).*
* *Teacher observations are reported above.*

**What direction will we be taking next?*** *Student supported the continued use of Mathletics (91%) and agreed its use should be expanded (91%).*
* *Parents would support the continued use and expansion of Mathletics (50%) but may require more information about its use (36%).*
* *Teacher and parent comments suggest Mathletics may be most appropriate for older students.*
* *The use of Mathletics will be considered in the plan developed by the Technology Ad Hoc Committee at Oaklands Elementary.*
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| Table 4Mathletics Results |
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**What did we learn?**

* iPads represent an exciting new technology with the potential to support learning.
* The impact of iPads will be compromised by the lack of Wifi in schools.
* It is important for teachers to experiment with this technology before using it with students.
* Students need to be taught about the functions and features of iPads before using them to accomplish specific learning tasks.
* Teachers need to develop plans that use iPads to support learning outcomes instead of developing outcomes to suit the iPads.

**How as student learning and engagement improved?**

* Students and staff were excited about the use of iPads.
* Teachers signed out iPads during the winter and spring vacations.
* The staff and student use of iPads increased throughout the year.
* The use of iPads during the school day grew from approximately 20% to 50% of the school day.
* All grade levels used the iPads with most of the use at the primary level.

**What direction will we be taking next?**

* The staff has established a Tech Ad Hoc Committee to investigate and plan for the use of technology at Oaklands School. This committee will make recommendation about the acquisition, deployment, and use of technology.