

May 2016

SET BC PROJECT – FINAL REPORT
DISCOVERY SCHOOL

WRITE: Writing, Reading, Innovation, Technology, Education

1. General Description

- a. Who was involved?
- b. What were the goals?
- c. What were the anticipated outcomes?
- d. What curricular themes/activities took place?
- e. What specific technology was used?

Discovery School is a small, independent school for students with Special Needs. Classes are small and generally have one teacher and a Special Education Assistant (SEA). Chris was the lead teacher for our project. He teaches grade nine English, Social Studies, and Computers. Paul also teaches English and Socials, and worked with Chris to develop cross-curricular assignments. They were supported by the other grade nine teachers, LA teachers, and our principal.

Our project involved a group of grade nine students with diverse learning needs. Among the students were those with Asperger's, Tourette syndrome, FASD, Intellectual Disabilities, Anxiety Disorder, and Learning Disabilities. Some of the students receive adaptations in order to access the regular curriculum, whereas others are working on a modified program. This group was chosen for the project as Chris is one of their homeroom teachers and would see them the most.

The curricular activities that we used in the classroom were of a supporting role to main teaching activities. We leveraged the attractiveness of the iPads to engage with students allowing them to show what they know in a multitude of ways. We gave the students as many options as we could and gave them the choice of which tool worked best for them in a given situation. Some examples are below.

- Pages
- Dragon
- Dictionary.com
- Notes app
- Dropbox
- Messages
- Pizap
- Camera
- SeeSaw

The students were able to use the above apps to complete classroom activities such as:

- Tickets in/out the door
- Class responses during discussions
- Presentations
- Homework submission

- Dictation
- Text to Speech
- Illustration
- Video tutorials
- Flashcards

From SET BC we received nine iPads as well as an Apple TV. With some shuffling we were able to organize the student group so that they each had their own iPad instead of sharing as was originally planned. This ended up being very important to the success of the project as the students took responsibility for their own iPad and were able to truly make it their own.

The original goals we created for our project were:

- Students will use new and creative ways to demonstrate comprehension and represent their learning.
- Use Reading and Writing Power to improve comprehension and written output.
- Students will create electronic portfolios for self-reflection and showcase.
- Increase technology knowledge, confidence, and collaboration between staff.

With their learning needs, our students struggle to comprehend what they view and read. Similarly, demonstrating comprehension in written form is very difficult for them. Our goal with the project was to help the students explore and identify new ways to share their understanding. We anticipated that this would be a difficult task for our students, especially inquiry based assignments. Many of the students rely on black and white explanations, specific instructions, and familiar routines. Freedom to ask, create, wonder, and show in their own way could be intimidating.

Our hope for the outcome of the project was that each student would find a new way of representing their learning that worked for them. We wanted them to be able to demonstrate understanding of what they had been learning in English and Socials and also, engage with their peers in new ways. We also hoped that through this project more staff would become comfortable using the iPad and various apps in order to incorporate it in more classes.

2. How the Project Proceeded

Most of the training that took place was of the informal variety. The team discussed strategies, tools and activities to use with students whenever they got a chance. The regular meetings with Elyssa Derban and the rest of the Set-BC project teams proved valuable in hearing anecdotal stories about different apps and activities as well. Chris did participate in a webinar on the SeeSaw app before introducing it to the students.

The students were told in November that they would be receiving the iPads early in January. This was done to prepare the students for the technology and also to ensure that they knew the importance of the new technology they were about to receive. When the iPads arrived and were ready to be used, the students were assigned an iPad with a unique number. The effect of each student taking ownership of their iPads was they

took more care of their iPads as they felt as though they had waited and prepared for its arrival. Before the students began using the iPads there were many discussions about appropriate use and conduct. The staff team had had the chance to hear George Couros speak about Digital Citizenship and Chris used this with the students to explore the idea of your Digital Footprint and what it means to be a Digital Citizen. We feel that this was more effective than a lecture on “being safe online” as they were the holders of some very special technology.

As the project proceeded, we had many discussions amongst our staff about how to effectively use the technology. Students were instructed to bring their iPads with them from class to class. Teachers then allowed the students to use the technology as they needed. During one of our regular Set-BC meetings, we learned about SeeSaw. This was an app that really changed the way we ran our project. SeeSaw aligned with our goals of allowing students to show their work, cooperatively solve problems, and communicate with teachers and peers.

3. Main challenges and how they were overcome

- a. One of the first challenges we faced was how to store and charge nine iPads at one time in a room that already had a full tech cart. The carpentry class ended up making a cupboard with a cubby for each iPad that had charging capabilities. The students were responsible for getting their iPad at the beginning of class or when they wanted it, and returning it to the proper cubby when they were finished. One of the students volunteered to check that each iPad was properly stored at the end of every class. The iPads and cubbies were numbered and the students quickly remembered who had which iPad. If one was missing from its cubby they would be quick to remind that student where it should be. While improvements have been made, it is still a work in progress as iPads still on occasion get left behind or in the wrong cubby.
- b. As with many iOS products, it can be difficult to get data on and off the iPads. We got around this by having the students create Dropbox accounts which they could then use as an intermediary between the class laptops and their iPads. This did create an extra step which would have been nice to eliminate. Another work around was using AirDrop. When students wanted something printed, they would AirDrop the file onto my personal iPad and I could transfer it off so they could keep working. Whenever students wanted to share their content, we could utilize the Apple TV to have them AirPlay their content to the class.
- c. Due to our iOS environment lacking a central management structure, it was difficult to maintain updates. Also, not knowing the implications that updates may have on apps and settings, we were reluctant to implement updates as they are released as we wanted to test critical apps to ensure compatibility. Since students had full access to their iPads, they were able to update, which they did. This caused their iPads to vary in version numbers and also downtime as their iPads updated during class time. To

get around this, we talked to the kids about not updating their iPads during class time. I stressed the importance of being able to work and not waiting for their devices to restart. In the future, we will look at implementing management software, such as Apple School Manager.

- d. Another issue we encountered was student distraction when using the equipment. We encouraged regular use of the iPads as a tool for learning and organization. Many students have regular access to iPads at home where they are used primarily for leisure. Creating the shift towards productivity on the same devices proved challenging. We implemented strategies such locking the device screens, placing them face down on their desks or completely putting them away in extreme cases of distraction. The students now have a better understanding of teacher expectations or proper usage of technology while someone is speaking but issues still do arise and we continue to work on it.

4. Main Successes

- a. Inquiry – Chris generally uploaded apps to the iPads before introducing them to the students. Many students would see a new app on their iPad and begin exploring it in their free time. By the time Chris came to the lesson using the app many students would surprise Chris with their knowledge and ability at using the app.
- b. Independence - As mentioned previously, our students are regimented in terms of the tools and strategies that they use to solve problems. They find it very difficult to think outside of the box and require reminders and cues to work their way through strategies. By using the iPads, the students have slowly been experimenting more than they would have otherwise. They are more willing to not only cycle through the apps that we have given them, but some are even researching online tools that we don't even have yet and asking to have them installed so that they can test them. While not every student has reached this level of independence, there is an atmosphere of innovation in our classroom where they wasn't before the project.
- c. Knowledge sharing – A positive outcome from this project was the chance to see students in a new light. Many students overcame shyness in order to teach their classmates about a new app or demonstrate a new skill. One student, who was new to the class this year and often demonstrated a less than positive attitude to learning, surprised us all when she asked Chris to download an art app. She ended up leading a tutorial on the app and making a video. It was rewarding for her teachers to see her take on a leadership role and demonstrate some hidden skills and qualities. She was able to interact with her classmates in a positive way and showcase her abilities. Other students also would ask Chris to download specific apps in order to share their skills or favourite activities.
- d. Skill development – On top of the curricular skills, there have been many discussions and tutorials on basic and advanced iPad skills. As mentioned earlier, many of the students have used iPads quite extensively but not

many in a productive way following through on a workflow. Their knowledge of things such as copy/paste, exporting files, sharing files, configuring the homescreen, changing settings etc has increased. While this will help them be more productive in an iOS (or even android) environment, it also helps our kids with coordination issues as the fine movements required when using a tablet is excellent practice.

- e. Class community – By using the Apple TV and See Saw the class was able to communicate together in a new way. They asked and answered questions of each other, responded to others work, replied to survey questions, and generally formed a new appreciation for each others' abilities. The project also brought the class together as they were seen by the rest of the school as participating in a “cool” new project.

5. Recommendations or advice

- a. As we have found that the iPads really enable our students to inquire and be more independent learners, we hope that we can integrate the technology further into the new curriculum as it gets rolled out in the coming months. By designing our curriculum with the iPads in mind, we feel that we can be more deliberate and purposeful with our implementation.
- b. One difficulty we faced was that our project class rotated teachers and classrooms. They had some classes with Chris in their homeroom, but often would have to take their iPads to class with Paul. This involved lots of forgetting and trips between classrooms to pick up or return iPads. The students were also limited by the class they were in to when they could use the iPad. A class where the students were always in one room with the same teacher would perhaps lend itself better to cross-curricular work. The students would be able to access the iPads at all times for work and leisure time. The teacher would be able to allow for more time and be more flexible with projects when they have the same students all day and do not need to worry about block schedule times.
- c. More time to share with staff - often it felt like the SET BC team was in its own bubble and the rest of the school did not know what was going on with the project. Chris was able to lead the staff through a tutorial on SeeSaw and showcase some of what the students had been working on. The staff enjoyed this and having more opportunities like this would be good moving forward in order to incorporate the iPads and other technology into more classrooms. Moving forward, we are still working out how the tech will be utilized in the coming years. Many of the other teachers have shown a strong interest in being involved. We would like to find a balance between allowing students to gain knowledge, skills and independence they that this groups has and allowing a greater community of students access to the technology.