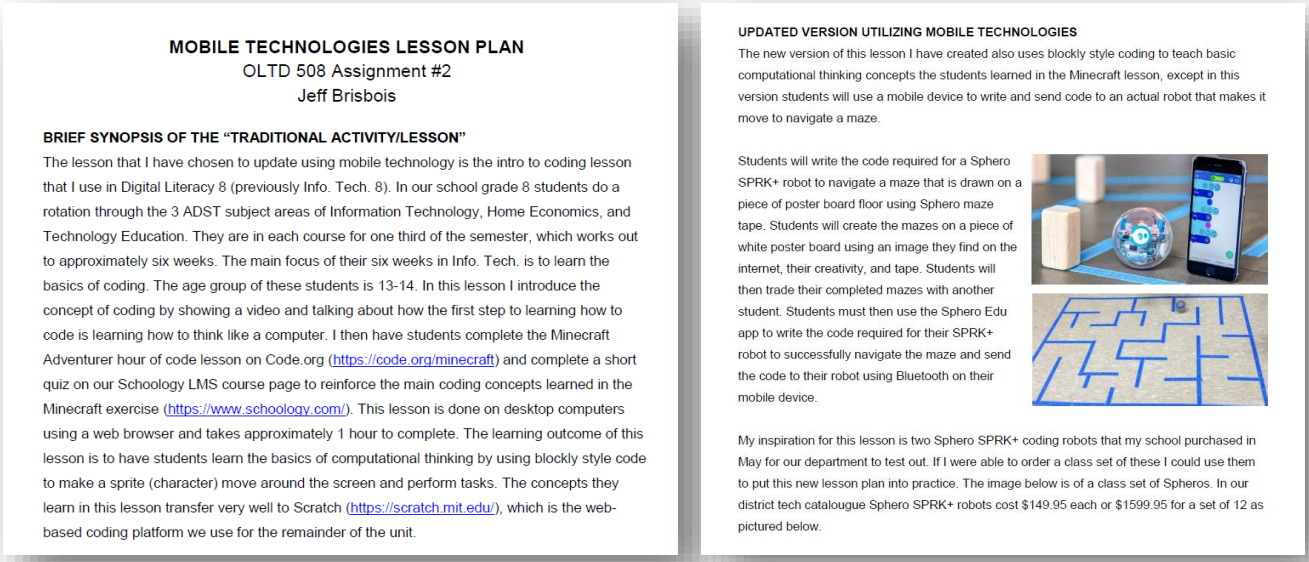
OLTD 508 ePortfolio Reflection #1

OLTD Program Learning Outcome(s):

- Plan learning opportunities most suitable to the strengths and challenges of a variety of environments
- Develop and design intentional learning activities suitable for the appropriate environment and the learner
- ***In what ways can mobile learning and technologies be utilized so as to benefit students and teachers both in and out of the classroom?***

Evidence:

Mobile Technologies Lesson Plan



MOBILE TECHNOLOGIES LESSON PLAN
OLTD 508 Assignment #2
Jeff Brisbois

BRIEF SYNOPSIS OF THE "TRADITIONAL ACTIVITY/LESSON"

The lesson that I have chosen to update using mobile technology is the intro to coding lesson that I use in Digital Literacy 8 (previously Info. Tech. 8). In our school grade 8 students do a rotation through the 3 ADST subject areas of Information Technology, Home Economics, and Technology Education. They are in each course for one third of the semester, which works out to approximately six weeks. The main focus of their six weeks in Info. Tech. is to learn the basics of coding. The age group of these students is 13-14. In this lesson I introduce the concept of coding by showing a video and talking about how the first step to learning how to code is learning how to think like a computer. I then have students complete the Minecraft Adventurer hour of code lesson on Code.org (https://code.org/minecraft) and complete a short quiz on our Schoology LMS course page to reinforce the main coding concepts learned in the Minecraft exercise (https://www.schoology.com/). This lesson is done on desktop computers using a web browser and takes approximately 1 hour to complete. The learning outcome of this lesson is to have students learn the basics of computational thinking by using blockly style code to make a sprite (character) move around the screen and perform tasks. The concepts they learn in this lesson transfer very well to Scratch (https://scratch.mit.edu/), which is the web-based coding platform we use for the remainder of the unit.

UPDATED VERSION UTILIZING MOBILE TECHNOLOGIES

The new version of this lesson I have created also uses blockly style coding to teach basic computational thinking concepts the students learned in the Minecraft lesson, except in this version students will use a mobile device to write and send code to an actual robot that makes it move to navigate a maze.

Students will write the code required for a Sphero SPRK+ robot to navigate a maze that is drawn on a piece of poster board floor using Sphero maze tape. Students will create the mazes on a piece of white poster board using an image they find on the internet, their creativity, and tape. Students will then trade their completed mazes with another student. Students must then use the Sphero Edu app to write the code required for their SPRK+ robot to successfully navigate the maze and send the code to their robot using Bluetooth on their mobile device.

My inspiration for this lesson is two Sphero SPRK+ coding robots that my school purchased in May for our department to test out. If I were able to order a class set of these I could use them to put this new lesson plan into practice. The image below is of a class set of Spheros. In our district tech catalougue Sphero SPRK+ robots cost $149.95 each or $1599.95 for a set of 12 as pictured below.

Reflection:

The piece of evidence I have chosen to support the above learning outcomes and first critical challenge question for OLTD 508 is my Mobile Technologies Lesson Plan that I created from September 12th to 20th 2018. In this assignment we were asked to consider the Clark Quinn's 4Cs and design a lesson for our own particular teaching situation where students will be leveraging the affordances of a mobile device. I chose to plan a lesson for a grade 8 coding unit that I teach. In my lesson students would make use of mobile devices to write code to guide Sphero SRPK+ coding robots through a maze.

In completing this assignment, I learned how I could potentially increase student engagement and provide a more realistic coding learning experience to grade 8 students by having them use mobile devices instead of coding on a desktop computer. After completing this assignment, I am confident that

if I had access to the resources required I could achieve the same learning outcomes using a mobile device in a learning space outside my classroom as I could using traditional teaching methods in my classroom. In addition to this I learned about Clark Quinn's 4 C's of mobile learning. These 4 C's provide a framework for teachers to integrate mobile technologies into their classroom by having them consider how their students will use mobile devices to access content for the lesson, compute/process a response using user input, capture information about their learning, and communicate their learning with others. I believe the strength of this piece of evidence is that it forced me to plan the details and logistics of a lesson that I could actually use. If I had access to the technology to carry out this lesson I would absolutely be able to integrate it into my teaching immediately. Now that I have a plan on how to make use of mobile technologies and Sphero SPRK+ robots I feel much more comfortable using the 2 robots that my school does have to implement this lesson on a smaller scale next semester when I teach coding.

I believe that the critical challenge question of utilizing mobile learning and technologies to benefit teachers and students is something that all teachers should be aware of as the education system moves further and further in to the digital age. Mobile devices are everywhere and almost every teacher and student either already has a device or will have one at some point in their life. As educators we need to embrace these devices and become competent in using them as learning tools in our classrooms. Mobile devices are here to stay and the only real option teachers have is to learn how to leverage them, not attempt to ban or supress them. From the perspective of an online educator, mobile devices provide a multitude of ways for teachers and students to collaborate and communicate with each other that traditional desktop or laptop computers to not. I think it is the responsibility of educators to meet students at their level and leverage their strengths. In the society we live in this means embracing mobile technology and incorporating it into the education system.