Shape It, Move It, Code It!

Team Members:
Richelle Hirlehey and Laura Lloyd
(with A. Thauer and K. McBurney)

School District: Thames Valley DSB

What We Did

Shape It, Move It, Code It is a cross-curricular project that incorporates Math, Dance and Coding in a fun and engaging platform for students. We involved two Grade 3 classes at Wilberforce Public School in our project. Our project took place over the course of two and a half weeks. Students were first introduced to using Lynx coding software by their classroom teachers through a brief experiential lesson that explored making shapes and a student's name. Students then participated in a series of 4 movement lessons where they explored movement concepts of locomotor and axial movements, rotations in space and use of body shapes to create coded dances on an 8 x 8 grid. We provided the students with code cards to create their dance sequences making it straightforward for them to incorporate all aspects of movement we wanted to observe in their final coded dances. Following sharing these dances with their peers and video documenting their coded dances, they used Lynx to code their dances.

What We Learned

We first attempted a similar project last Fall 2019 in collaboration with Hirlehey's Kindergarten students and another Grade 4 class within our school. Due to Covid protocols, we revised our project to work within one class at a time rather than combining two different grades. We chose one Grade 3 class that had not had a lot of previous coding experience and a second Grade 3 class that had base knowledge of coding using micro:bits and other unplugged coding activities. Working together with K. McBurney and A. Thauer (Grade 3 Teachers), Laura Lloyd and Richelle Hirlehey facilitated Lynx and movement sessions for our students.

Much of the learning that took place was around how to use Lynx to code. We were grateful for the opportunity to have a learning session facilitated by Peter Skillen and Brenda Sherry to learn and explore using Lynx as our original plan involved using MicroWorlds Jr. for younger students. Following this, McBurney developed a wonderful slide deck to support her students' understanding of Lynx. You will see a sample of this in our slides. This slide deck has since been shared with one of our school boards Math Coaches. Our other collaborator, A. Thauer, has since explored coding further with her students using unplugged activities and Bee Bots.

We had originally planned our project to take place for four weeks during February. Due to a shift to virtual remote learning in January we ended up condensing the project into a 21/2 week time period. Despite thinking we needed more time, we recognize that this time frame worked well for our learners and teaching partners, as it provided them a focused time period on which they dedicated a portion of each day to Shape It! Move It! Code It! We found the engagement was high throughout this time and students were very excited to share their final work with their peers and teachers.

What We Learned (continued)

What we have learned:

- How to use Lynx to do basic coding but also how to teach Lynx to our students;
- Sometimes time limits are beneficial to seeing a project through to completion;
- There is always a way to make a project come to life, sometimes you have to revise and revisit the plan but in the end it can work out;
- Using the same terminology across the movement lessons and coding lessons really reinforced the importance of the terms and concepts we taught throughout our project.
- Providing the students with recipe coding cards was beneficial to them in creating their coded dances and crossed over successfully when the time came to code their dances using Lynx.
- Collaborating with others is a beautiful gift and from here we feel confident all four educators in our project could continue on to provide coding extension activities with their students.

How We Shared Our Learning With Others

We have created a Google Slide deck as documentation of our experience. Over the coming month we hope to finalize our lessons as they were taught and add them to our slide deck to share with other educators both in our school and district communities. Should the opportunity to present our work occur, we would be more than willing to share our project with others.

Links to Our Work

Here is our Google Slide deck designed to share our learning with other educators within our school:
Shape It! Move It! Code It! 2021 Documentation