

Final Write-Up - Learning Module 2 - Lending Library

Group Members' Names:

Disha P. and Yuliana P.

Topics Covered:

The Lending Library, different coding products for children, computational thinking curriculums, how children act/learn/why emulators are not the best way to get concepts across.

What was Learned:

The girls learned about how lending libraries work to better incorporate one into their own community. This included researching different products used across the nation to teach students computational thinking, researching other lending libraries (Specifically Kean University's), budget planning, and putting together a comprehensive guide towards teaching kids coding through lessons they would best understand.

They set up a Notion for the project to keep information in one spot and learned a lot about how to remain productive and organized. Although it was hard to come back to it every single time, it was nice to have everything in one place.

Throughout the course of the learning module, the girls also needed to try a lot of things they would not have otherwise considered. This included reworking some ideas they had previously, facing issues with original plans and needing to migrate to different resources, and carefully budgeting time.

Problems Encountered:

Disha and Yuliana are not educators.

Although they did their best to cover everything -- and even with research -- not everything always lined up. Sometimes a difference in ideas led to a lot of backtracking and redoing/re-researching -- or even reconsidering ideas entirely.

Inventory was hard to keep track of, and so was knowing how much was needed for a classroom. \$2,500 seems like a lot of money until someone has to spend it on things they need -- in this case, figuring out what products could wait and what they could use was tough.

Issues with scheduling played a massive role in confidence with the lending library -- specifically with how to spend the money. Girls Coding with Girls runs at the same time this does, so Disha and Yuliana were trying our best to communicate with those groups (if not just be a part of them!) and figure things out.

Suggestions:

To anyone working on the library next, it would be important to build on what was already put out before. Not everything needs to be original, even though at most times people really want it to be. Sometimes you just need to lean on what was done by those before you -- even if you need to look beyond them to find it.

Of course programs could get better with more effort and new ideas being added, but oftentimes people do not need to fix anything that is not broken. Had the girls started immediately with looking at the format of Kean's lending library, for example, they would have been able to skip perhaps a day or two of research -- it was done for them.

Experience Summary:

This was something entirely new to both the girls and something they plan to continue working on even beyond the learning module. For one, they learned a lot about teamwork, scheduling, and concise research that can hold a lot about a product.

Something like a lending library connects to computer science without really touching coding. It represents more of the connections that computer science can bring rather than the hard and plain coding aspect of it. People can create so much with just the concepts of CS and not need to do a lick of coding -- it's what makes coding so important and something that should be valued in everyone's lives.

There is still a lot of work to be done on the lending library. Disha and Yuliana plan to work on it beyond the learning module, but this will absolutely take time and they plan to put their best effort into it. Only good things are to come!

DAILY LOG

Monday 9/13/21 - (9:12am-9:54am; 8:00pm-9:00pm)

Today, Yuliana and Disha set up their plan of action through an organizational site called Notion. They planned out what they needed to do over the next 5 days, and started researching Micro:bits and Maqueens. They went through the Micro:bits and Maqueens that were in the classroom and will play around with them soon. That night, Yuliana and Disha continued to research and learn how Micro:bits and Maqueens work.

Tuesday 9/14/21 - (9:12am-9:54pm; 7:30pm-8:00pm)

Yuliana and Disha continued to research products, Yuliana researching Micro:bits and Disha researching Maqueens. They kept notes as they researched each potential product.

Wednesday 9/15/21 - (9:12am-9:54am; 8:30pm-9:00pm)

Today, Yuliana and Disha decided to start researching other devices that could be used to teach younger grades (KG-3) computational thinking. With the Kean University Lending Library, grant proposal, and other resources that Mr. Detrick provided, they came up with a few possible options such as Bee Bot, Ozobot, Makey Makey, and a Lets Go Code Play Set.

Thursday - 9/16/21 - (9:12am-9:54am; 8:00pm-8:05pm)

Yuliana and Disha continued to research each of the new devices they found yesterday that would be good to teach younger kids computational thinking. During the CS@WH meeting in the evening, they briefly discussed what was going on with the lending library.

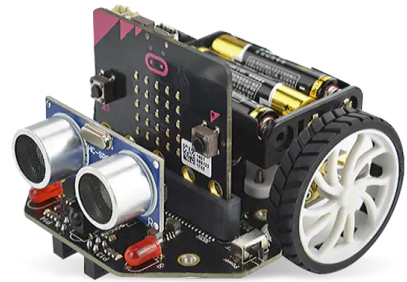
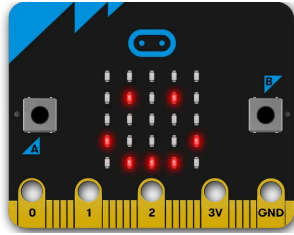
Friday - 9/17/21 - (9:12am - 9:54am; 8:00pm-9:00pm)

Yuliana and Disha began to start thinking about budget and what products and quantity of products they needed to get. They decided that they would do the Let's Go Code Playset for kindergarten - 1st graders, Micro:bit for 4th-6th graders and Maqueens for 7th and 8th graders. They are not sure whether they think Bee Bot would be good for 2nd and 3rd graders, or if there was something better like Ozobot or Finches.

Monday 9/20/21 - (9:12am-9:54am ; 7:00pm-8:00pm)

Today, Yuliana and Disha talked to Mr. Detrick about Bee Bots, and decided that even though it may seem toyish and easy to us, it is a good way to teach younger kids about computational thinking. Mr. Detrick ordered a set of the Let's Go Code Playset to try out and it will arrive later tomorrow. Yuliana and Disha want to have a budget plan ready by the end of the week and have a final idea of how they want to use the grant money.

Project Gallery:



RESOURCES:

Warren Hills Lending Library [website](#)

Kean's lending library [website](#).

Notion -- Specifically our [page](#).

Multiple Amazon pages/listings/reviews -- for the MicroBit, MicroBit MacQueen, Ozobot, Finch robots, Sphero, Makey Makey, mTiny, Let's Go Code! Playset, Cubelets, Beebots, and Dash and Dot products.

As a reference guide for what to

research: <https://www.exploringrobots.com/index.php/grade-levels/elementary-schools-grades-k-5.html>

YouTube Videos to look at the functionality of most products researched.

Detrick's proposal, CS standards, and grant information.