



Teaching Kids Code and the Importance



Sharon Oh

College Park Scholars – Science & Global Change Program
Computer Science
sharonoh@umd.edu

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Introduction

Last Summer, I was able to teach kids code remotely from home. Through Coding with Kids, I was able to teach kids from the ages of 6-12 code.

Functions

Functions will run a block of code when a certain event occurs

```

var count1button = document.getElementById("button1");
var count1 = 0;
count1button.onclick = function(){
  count1 += 1;
  count1button.innerHTML = "Clicked: " + count1;
}

```

Creates a variable to be able to get information about the button

Variable that will keep track of how many times the button will be clicked

Method will run everytime this button is clicked

An example of the slide I would use to teach kids code. This slide is utilizing the JavaScript language in order to teach how to create a variable and increase it every time it is clicked.

Site Information:

Coding with Kids

Sarah Houck

The site mission is to ensure quality education for all students of all ages.

Issues Confronting Site:

- How would I create a fun, engaging learning environment through zoom?
- How do I effectively teach kids code?

Discussion:

Teaching kids code is a new branch of learning and teaching that has been introduced in the last ten years. However, it can be either hard to achieve or easy to master for many kids. I think this is a good idea to immerse kids especially when they have creative that can help them thrive within the coding industry. Especially teaching kids fundamentals skills such as communication and problem solving.

I have learned that using features that Zoom offers such as annotation, whiteboard, and allowing them to have frequent breaks presents the best results regarding the student's attention and how well they absorb the information. As well as using examples that they would be able to relate to or find entertaining.

Activities:

We used environments such as CodeKingdoms, Codesters, and Codepen to code Java, HTML/CSS/JavaScript, and Python. We worked on many different projects such as building and customizing our own webpages, creating modifications to Minecraft, and building little games in python. We would discuss coding concepts such as variables, if statements, methods, and arrays.

We always had a schedule: warm-up (mainly a recap from yesterday), small practice code, main lesson about a concept, then applying it to a project.

```

public void onJoin() {
  for( int i = 0 ; i < 1000 ; i = i + 1 ) {
    addItemToInventory( new ItemStack( Material.HONEYCOMB ) );
  }
}

```

An example of code we would write as an exercise or warmup for Minecraft Modding classes. In this case, the language is Java and we are using CodeKingdoms to modify Minecraft.

Impact:

I learned that teaching kids requires a lot of patience and going through the little steps. I also realized that maybe teaching is not a future long-term career path for me.

However, teaching kids code is rewarding because when they can code independently or apply what they have learned in previous classes to their own custom projects. It shows development which is rewarding as their teacher.

Kids learning code can be beneficial as they gain problem solving skills when they are debugging their code. Also, when they are debugging and unable to utilize the share screen function, I believe that this scenario helps them understand the code further and helps them build their communication skills in order to describe the problem to me.

Future Work:

I want to volunteer in college teaching kids code, or work with tutoring students for lower-level CS courses. However, I would not want to pursue this field as a fulltime job. This job has been an asset when applying to internships and gaining knowledge about a real job.

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