Authentic Date Integration

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Can Plants Really Grow in a Second Grade Classroom?

Data Source:

https://drive.google.com/file/d/1tj2hSHKaYATLEPJhYXfic5kwlkNLruLe/view?usp=sharing

My data comes from the experience that my students recently had planting seeds. I could have showed them pictures of seeds and of the parts in a plant's life cycle. We could have watched videos of people planting seeds online. But what better way to enhance their learning than to have them plant seeds and grow plants for themselves. This is an experience that many of my students would never get to have if we didn't do it in the classroom, and one that they will remember for many years to come.

This data will allow me to branch out and address new objectives in other Science standards. I will be able to compare our data, specifically where and how our plants are growing, to other plants around the world, that are growing in very different conditions than ours. I will also be able to incorporate hands-on measurement much earlier than I typically can in our Math curriculum.

This data changes my teaching and my students' learning by allowing students to have a personal connection to the importance of plants, and how something that we see daily has a tremendous impact on our lives. This will also allow them to learn more about plants than they even knew they wanted to know before this experience, by having them come up with questions and wonders that they have about all the many aspects of plants, and using technology to get answers to their questions. Hopefully it will change my learning by allowing me to learn many new things from my

students, as well showing them that even teachers can learn new things.

Using student data in the classroom is something that our school has been working on daily, since we got our latest administrator. We have been using formative assessments to collect data to drive our instruction for the past several years. We even have data meetings to help our grade level see what content and instruction we need to improve, but also to see what we have done a good job getting across to our students.

Using my student's personal data helps me to know my students better. I can see what they do and do not know. When I need to, I can show a student their data to encourage them and to hopefully give them motivation to improve their thinking. I can also show their parents their data, to show them how their child is doing, and help them pinpoint areas where they can help their child at home so they can grow in the classroom.

It wasn't until this course that I have really thought of images as "data". Since we have had such a focus on using student numbers as data, that is what I think of first as data. But after thinking about it, I use picture data in my classroom almost daily. There are so many times where we watch a video during breakfast or lunch, or we are reading about something in a text, that I go to Google or YouTube to find an image or video to show them what an animal looks like in real-life, why someone is so important that a cartoon teaches us about them, or to answer another question or wonder they have about something that we have watched or read about. For example, yesterday a student told me that the number of spots on a ladybug told you how old the ladybug was. I immediately, and kindly went to Google to look this up for the class, and to clear up this student's misconception. I love being able to show students any kind of image

or information that can help them unlearn things they thought they knew, or learn something they didn't know!

Using photos of my students' plant growth and their plant growth journals, where they are tracking the growth of their very own seeds/plants, is the most authentic way for my students to see if their predictions about what plants need to grow are correct, and to answer any questions they have about how plants grow.

Why did I choose to use this data source? For this assignment I chose to use data from what my class is currently learning in Science. We are just beginning our study of seeds, plants, and bees, which are part of our Alabama Science course of study, so I wanted to use data from my students, so it would help me be more intentional with them during our Science instructional time. I also chose to use my students' data so that it would mean more to them. They were excited to share their "data" with their teacher's teacher!

This data will allow me to easily integrate all the other STEM content areas. There are many standards across STEM content areas and pedagogy that we will be able to connect to this data/experience. We will be using this data to discover what plants need to grow, and later to bees and pollination, which are all parts of our Alabama and NGSS second grade Science standards. *(Alabama Science Course of Study: 5. Plan and carry out an investigation, to determine the growth needs of plants. 6. Design and construct models to simulate how animals disperse seeds or pollinate plants. NGSS: 2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow. 2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.)* We will be using technology to learn about seeds, different types of plants, bees, and pollination, and to create graphs of our observational data online. When we set up the area where our plants will grow, we

talked about the design of the set-up, and discussed why it is engineered the way it is. We will later design pollination models that will allow the students to use their engineering skills, as well. Measurement and creating bar graphs are two of our Math standards, so we can use this data, and the data that we will collect over the next few weeks, to incorporate measurement and graphing. We have already used our data to create art, by drawing pictures of what we have observed and how our plants are growing, and will continue to do so as our plants grow and as we begin to introduce bees and pollination into our classroom.