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REFLECT

This summer was definitely a summer that I will remember for years to come. I came into this experience with a lot of anxiety surrounding the unknown of being in a new town, exploring a new college campus, being surrounded by unfamiliar faces, and learning about new ways to approach teaching that I had never heard of before. Each of these unknowns challenged my thinking and encouraged me to have an open mind each day. Right from the start, we spent some time observing ants. This helped me to learn that many activities can be altered slightly in order to be adapted to meet a different grade band of students. It also helped me to learn that each of the standards our students are expected to meet are scaffolded and build off of each other. This means that you need to ensure your students have mastered the foundational skills before moving onto more complex topics. A second strategy that I learned about this summer is the ORID Framework. ORID stands for Objective, Reflective, Interpretive, and Decisional. The ORID Framework assists students in processing information that they have read, and it allows them to work through questions that have different levels of depth. This is definitely a tool that I want to use in my future classroom as it will enable all of my students to participate in our classroom discussions. We completed multiple ORIDs this summer and we practiced using this tool so that we will feel prepared to use it in the future.

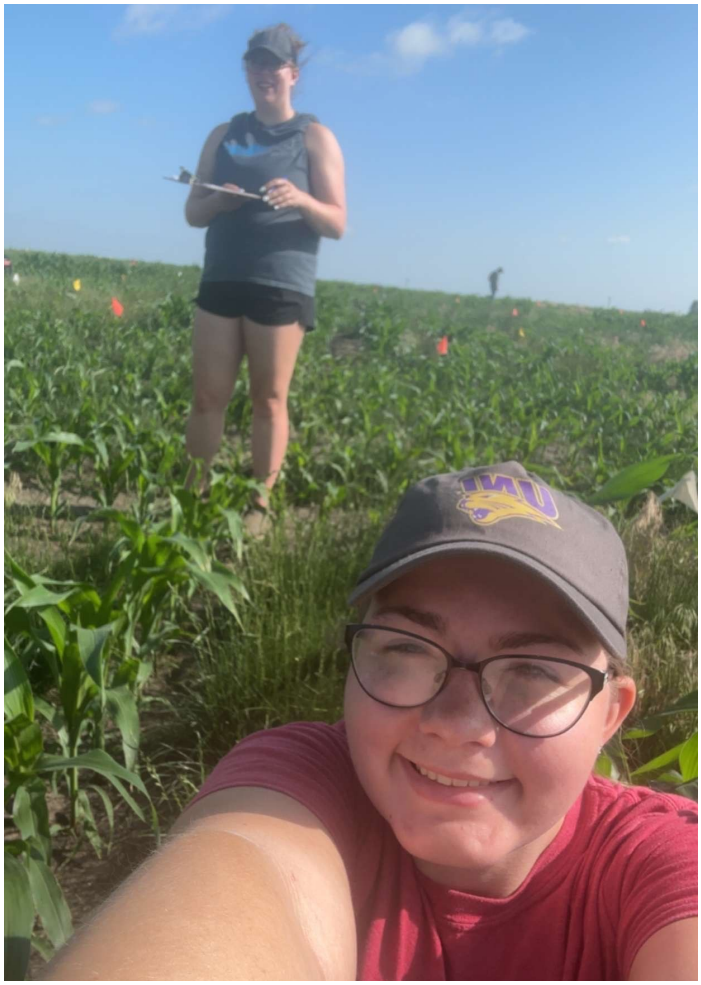
Over the course of this summer, we had many guest speakers come in and talk to us about various topics. One speaker was Will Richardson. He shared with us how everything comes from the Earth and we need to recenter education around this idea. He also discussed how we need students to be “future serious”, and as teachers, our job is to ensure that students are learning and not just attending school. If students are actually learning then they will be curious about concepts and want to learn more. This conversation left me with many thoughts that I continued to ponder over the next few weeks. Will brought up many great points that I will take into my future career such as how our job as teachers isn’t to change the world for everyone, instead, it is to change the world for one student. That change may end up having a ripple effect greater than we could have ever imagined. Soon after Will came and visited us, another visitor named Carlos Rojas came. Carlos told us about his project titled the “You Project” which has the goal of helping you get down to the root of who you are. Carlos provided us with the You Project boxes, and we were able to work through them as a group. The box enabled me to think about how I can create a sense of agency in myself and in others. The biggest piece of information that I took away from his presentation is that we have to change the system so people are able to get help right when they need it, instead of waiting for them to drown first. Inside a classroom, this means that we need to help all students who are struggling, not just those who are struggling significantly. Carlos left us with the idea that kids don’t need heroes, they

REFLECT (Continued)

need someone who believes that they can be a hero, and I think this is a very powerful statement that I am going to cling to as I enter the teaching world. The final speaker that we heard from was Mark Windschitl. Mark is a Science Education professor at the University of Washington, and he came to discuss climate change with us. He first explained how it is our job as teachers to ensure that we are teaching our students about climate change because if we don't teach them, no one else will. Additionally, he validated our thoughts in regards to climate change being a touchy subject, but he encouraged us to take the leap and dive deep with our students as this is what will provide the students with the greatest opportunity for learning. While Mark was there, we worked through the Climate Fresk activity which pushed us to stretch our brains and think through how all aspects of climate change are intertwined with each other. Finally, before he left, he gave us practical ideas about how we can take action with our students in regards to climate change. The ideas included advocating for change, creating public displays of climate art, reducing food waste in the school's cafeteria, and starting a recycling campaign at the school. Each of these practical ideas will help me to jump in and take action against climate change as a young teacher.

FIGURE SOMETHING OUT

The professional development opportunities that I just discussed were only part of my summer. The other chunk of my summer was spent in a research lab learning how to complete actual research. I was placed in the Fei Lab this summer and collaborated closely with the Moore Lab. Each day I would carpool to campus with two other REU's, Jacie and Alex, and we would head to the Agronomy building where we would meet our team. Once we were all gathered, we headed out to the field where we would help 3 different grad students take measurements on their experiments. Over the course of the summer we became knowledgeable in each of the experiments and were able to learn a ton about what goes into completing research. Most days in the field were enjoyable, but there were some barriers that I had to overcome. Examples of these barriers include hot summer days, having no motivation to get work done, feeling like the work was never ending, and mental/physical exhaustion. These barriers definitely made it difficult to get up every day and go to the field, but through the help of others I was able to push through. The people that specifically helped me along the way were Jacie, Alex, and my mentors (Patrick and Cameron). They helped me to keep going when it was hot and they made me feel not so alone in my experiences. We shared tons of laughs in the field and ensured that we were doing our best to create a positive work environment. They also reminded me to take care of my physical and mental health as that was more important than any data we could collect. This meant taking breaks when needed, drinking lots of water, and eating breakfast each morning.



MAKE CONNECTIONS

Throughout this summer, I learned that it is super important to tell your students the why behind different assignments. At the beginning of the summer, I didn't understand why we needed to take some of the measurements we were taking in the field. This led to the barriers that I previously discussed getting harder to get past. Once I knew the why, it suddenly became a lot easier to take the necessary measurements because I understood that there was a purpose to my work. As a future teacher, I am going to ensure that my students know the why behind their assignments as this will encourage them to complete the assignments to the best of their abilities. It will also help them to know that there is value in completing the assignments, and it isn't just busy work. A second thing that I learned this summer and I will take into my classroom is that research and data takes a lot of repetition. If my research group is trying to prove that a certain cover crop is better than others, they need many sets of data that prove this thesis, not just one piece. In the classroom it is the same thing. If I am trying to prove that my students have mastered a standard, then I need many sets of data that prove this, not just one. I am going to need to assess my student's abilities multiple different times to ensure that they have truly learned the necessary skills to have mastered the standard.

PREPARE FOR WHAT'S NEXT

As this summer comes to a close and I begin to think forward to once I enter the classroom, I think that the most feasible way for me to share the information that I learned this summer with my students would be through a Zoom call with my mentor. This will allow my students to interact with him and learn more about his life from the convenience of our classroom. This would be fairly easy to arrange, and I could integrate it into multiple different subjects such as English and Math. English could be connected through students writing questions and answering questions from the call or writing a one paragraph reflection on what they learned. Math could be integrated through having students look at some of the data that was collected and then drawing their own conclusions. The students could also use the data to find values such as the mean, median, and mode of the sets. This activity would be highly engaging for students, and it would peak their curiosity. Creating a sense of curiosity in my students is my whole goal because when students are curious, they are learning, not just memorizing information.