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Teaching & Learning III

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Round Reflection #2, Spring 2016

Having not attended a science round this year, I took my opportunity to do so when visiting South High Community School one early Thursday morning in February. I went to observe Adam Nye's ninth grade biology class. Adam was working on a polymerase chain reaction (PCR) lab with his students, where they spent a few days scraping cheek cells from their mouths and amplifying DNA in a contained environment. Adam was helping students understand the process of gel electrophoresis, all the while teaching terms like Punnett square, heterogeneous/homogenous, and dominant/recessive. Since I had little knowledge in the field, I was particularly pleased to sit in and learn a few things about the PCR process.

Adam began the forty-five minute class with a starter that called for students to reflect on the previous days' lab work. Students needed to summarize what they had been doing. My table of three students had trouble at first summarizing—first relying on reading verbatim the lab sheet—but they pulled it together once they got their minds thinking about the terms. Next, Adam provided a mini-lesson on the lab results; for instance, were students' results heterogeneous or homogeneous? Then, they went over the lab data as a class. Finally, Adam provided students with an authentic example to end class, where they had the chance to try out their taster gene, TAS2R38. Students were very much engaged throughout the lesson, especially when they got to take their lab work and taste it firsthand. They all seemed to take to the idea of “eating the chemicals.”

Students seemed hesitant or unsure at first about summarizing what they had been doing in the lab over the past few days. That said, after some warming up, students got back on track. I noticed that my group of students seemed talkative and able to address the questions given to them. I later learned that my table came from the South High STARS Academy, and that these students were doing well enough in their classes to attend the lab all week in Adam's room. In fact, the STARS students knew the material very well. This group, as well as most others in class, were using the discourse of the discipline all class. I heard a lot of students saying "heterozygous, non-taster gene," "recessive traits," and "CAC and FNU." Behavior was also good most of the class, with the exception of a couple students talking throughout the lesson. During post-round, Adam let me know that these students have anxiety issues when guests visit the room and often become chattier because of it.

Overall, it was nice to finally attend a round so far outside my discipline. I enjoyed seeing Adam teach, since he is a pleasant, engaging teacher while typically a very serious person outside the classroom. The room was a welcoming space with a lot of opportunities for students to speak, alert Adam to confusions, and use available resources. One observation I made at the beginning of class that I had a question about was when material was modeled on the board. For clarity, could the diagram have been created with software, instead of hand-drawn? I saw and heard some confusion from students who were unsure of how to interpret the data at first. Many seemed to figure it out, but I wonder whether having a cleaner, clearer chart could have prevented a bit of the confusion. I am not sure if this would even make sense, since I am not in the field! Maybe it needed to be hand-drawn.