

Module 1 – Environment

Math 9 – 12

### **Initial Summary**

I have two classes of algebra 2 consisting of juniors and seniors. Initially, students were engaged and quiet as they were most likely not comfortable with the class and classmates. As the first marking period went on, students became more comfortable with both me and their classmates which led to disengagement for students. A quick change of seats proved to help in a minor way, but there was clearly something more extensive that needed to be done.

### **New Learning**

My learning plan for this Classroom Management module included reading Lemov's Teach Like a Champion and Marzano and Brown's Handbook for the Art and Science of Teaching, specifically Module 14: Rules of Engagement: Questioning, Physical Movement, and Pacing, as well as talking to my mentor and colleagues during our professional learning communities to gather ideas to increase student engagement. Through conversations with my mentor, I was able to gather ideas to test in the classroom, including journaling, student test corrections, and giving students a voice. Through our professional learning communities, I was able to conclude that providing a consistent structure would help to get students engaged and also outlining my objectives for the day and agenda consistently on the board would provide consistency and structure for the students.

The impact my research had on myself as the teacher was that I was able to find new meaningful ways to better enhance my lessons and keep students engaged. I learned that journaling could prove to be useful for students in keeping them on task. The art of letting students question themselves and the work we are doing in class could help them to stay focused.

In Marzano and Brown's book Handbook for the Art and Science of Teaching, they write, "Questions can activate student engagement through two pathways: (1) encouraging the learner to investigate missing information and (2) providing mild pressure for the learner. Effective questioning ensures that the students understand what they are being asked and why" (Marzano & Brown, 169). This proved to be a strategy worthwhile to test in my classes.

I also learned that test corrections may be useful in helping students understand their mistakes and working on correcting those mistakes, so as to not make them at a later date. As far as what I could do, I learned that providing the agenda and objectives on the board in the same place every class may help students to stay on task and engaged in what they were doing. Also, I learned from Lemov's Teach Like a Champion that using different strategies, including cold call, do now, no opt out, and do it again could help improve student engagement. These four techniques include providing students a do now at the beginning of class to get them working on something while I have time to check homework, or something as simple as not letting a student answer with "I don't know". By doing this, I am making sure that they get help if needed and then I go back to them to see if they have learned anything.

### **Impact on Practice**

From my new learning, I have made several changes in my teaching practices. The first important change was new seats. Providing my students with new seats gave them a chance to not only get away from people that may have been distracting them, but also allowing them to get to know new classmates. I also created student journals to be used within a three week period for both of my Algebra 2 classes. These journals provided the student a chance to write down how they were feeling in the class, along with working on certain math problems and

understanding concepts to tie together my lessons. During their first journal, they were asked to rate themselves on a scale of 1 to 10 how engaged and focused they thought they were personally during the first marking period. They were asked to answer a question about what I could do differently to help them learn and also what their favorite day of the first marking period was so I could see what type of lesson they responded to best.

Some journal questions were straight forward. Specifically, for instance, one journal question asked them to solve a 3x3 system. These questions were meant to connect our lesson to our journals. Marzano and Brown write the following about retrieval questions, “Retrieval questions can help students (1) construct meaning about new knowledge, (2) revisit and store that knowledge, and (3) discover connections and patterns relating that new knowledge to previously learned content” (page 169). I was hoping to connect the ideas of 2 variable systems to 3x3 systems and to allow students to sum up our lesson in one problem. We would take the last five minutes of class to journal. This acted in some ways like an exit slip.

Along with new seats and journaling, I tried to keep a consistent agenda on the board with my objectives for the day. As much as possible, I tried to do the same thing every class to ensure that students were able to see what was to be covered throughout the class and understand what the objective was for the day. I made sure to write my agenda and objectives during announcements (the first five minutes of class) and also to provide their warm-up on the board to get students working right after announcements. The purpose of this minor change was to keep consistency for the students and also to utilize my 85 minutes as effectively as possible. Before, I would take my time in putting up the agenda and warm-up and it led to disengaged students

chatting during and after announcements. There was no real focus. This simple change helped students stay on track and focused on the task at hand.

Finally, I tried to implement many of Lemov's techniques in my classroom from No Opt Out to Cold Call. These techniques allowed me to place responsibility on my students to understand what we were doing and almost forced them to stay engaged because they had to help answer the question. They also were allowed to ask questions if they were unsure and as a class, we would work to answer the question. I would then come back to that same student later to answer a similar type of question. For example, if one student that I called on did not know the next step in solving the 3x3 system, I allowed them to call on someone who knew, and they explained their answer. I then went back to the original student who I had asked and asked them to explain the other student's answer to me. This ensured that they were paying attention and not just opting out of the question by saying they did not know. It placed a responsibility on the individual student to understand what the next step was to solving the problem.

### **Impact on Students**

Although some of my changes were minor to the classroom, they definitely made a big impact. New seats alone diminished a lot of issues with student engagement. It created an environment where students needed to work together, but perhaps with someone they did not know before. I think the biggest difference I saw in student engagement was because of the journals.

When asking students to rate themselves on a scale of 1 to 10 of how focused and engaged they were, I was quite surprised in the honesty of some of my students' responses. One

student responded, “I would give myself a 6 because there were days where I wasn’t as focused as I could be and other days where I tried really hard. I think by putting more effort into my class work, I can work my way to a ten.” Another student wrote, “I am giving myself a 4 because I don’t understand anything and don’t really try. I could improve by starting to complete more of my homework and then working on my participation.” It was interesting to see how students graded themselves, some harsher than others, but it was encouraging to see that students understood they needed to fix something to become more engaged and focused and to take on the shared responsibility of learning. It was a way to reflect and place the responsibility on the student to recognize they needed to adjust in the next quarter, or stay the same.

Even in the overall completion of journals, I saw a difference within three weeks. Towards the beginning, I don’t think the students understood the impact these journals could have on them and then towards the end, they were realizing it was connecting everything together and making more sense. I saw a significant change in answers from the first journal to the last journal. Not only with the length of answers, but the depth of answers. Students were putting in more effort to complete their journals and since they knew what was coming at the end of each class, they were inclined to be more engaged to understand the topic at hand. It was interesting to see the development that took place throughout a three week period. Some students became more engaged in a minor way, while others took big steps towards staying focused and learning responsibility of their own learning.

I saw a minor change in student engagement when trying to keep consistency with my agenda. It did help with my own transitions, but I think it left the students feeling the same in regards to their own engagement and focus. They were more on task during the first five minutes

after the announcements in both classes, but it took some getting used to. Although it was a minor change, it was a positive change in the right direction for students. I think I could build off of this in the future and continue to pursue consistency for my students to help them stay engaged and focused. It allowed them to see our objectives and to start off the class in an organized manner.

Finally, the implementation of some of Lemov's techniques helped students to stay on their toes during class. When taking notes, it would not just be me writing notes on the board. I would try to get my students involved and asking questions. No Opt Out and Cold Call were both useful techniques to hold students accountable for their engagement in class. It allowed me to challenge students and answer questions or get help when they needed it. Not knowing who would be called on next helped my students to stay focused because they knew at any one point in time during the lesson, they could be called on.

## **Conclusion**

So what have I learned? I have learned that student engagement can be affected by many factors, and after this entire module, there are still plenty of things I could work on. I have found that journaling was a good way to get students engaged and it also helped to give them a voice. It allowed me to see how they were progressing through our unit and what I could do differently to help them better understand the material. Placing emphasis on student engagement will lead to increased shared responsibility of learning because it will create independent learners and help students realize for what they need to be accountable.

I have also learned that providing students with consistency in objectives, agenda, and focus has helped my students stay much more focused and engaged. It also provided them with structure and most students expressed they would rather have structure. Using a handful of Lemov's techniques have helped me sharpen my practice and allowed students to be accountable for their learning.

There are many things I can do to continue improving student engagement and shared responsibility. The first of which is to try test corrections to see if that will help students understand the material more thoroughly and also to hold them more accountable for the learning of such topics. So often, I would just move onto the next topic and never really gave my students the chance to correct their mistakes as well as I should have. This would be an approach I may try next quarter to help students correct their mistakes. I could also keep giving students a voice in the classroom, including quarterly feedback on my teaching and how I can help them learn or improve.

Overall, I have learned many things and still have more to try in my classroom. It will be interesting to see the long term effect of my strategies that I have implemented into my classroom. If I am to continue my journaling, how would it impact my students over a longer period of time? How will consistency in beginning with the end and allowing students to know where we are going in class improve student engagement in the long run? There is always room for improvement, and I will continue to learn new strategies to implement into my classroom throughout my years of teaching.