

Synthesis Essay

I entered the Master's of Arts in Education (MAED) program in hopes of learning more about how students make connections in mathematics as well as understanding how to effectively utilize technology in my own classroom.

Going into teaching I knew that I loved students that are at the middle level, specifically grades 6-9. Students at this age are quirky and goofy. They are still impressionable but are able to communicate with an adult and have a little fun! Something else that goes along with this middle age is the variety of learners that I cross paths with on a daily basis. I knew that relationally I was able to meet my students where they were at and help them to feel welcome, confident, and safe in my room. When entering this program I wanted to dig deeper into a student's brain as they are developing and learning in mathematics. My hope when entering this program was to learn more about how a student's brain develops, different factors that either enhance or discourage student learning and growth. I knew that this type of study takes discipline and focus and by entering into this program I was going to encounter professors that would encourage me and lead me in the right direction.

With technology, it's clear that we are in a world that relies more and more on technology every day. Since this shift is different from when I was a student, in middle school and high school, I knew that this was a part of my teaching that I needed to strengthen. Since I began teaching, technology has been available at every school I have taught in, except one. While I did use technology and implemented it sporadically throughout a school year, I was not consistently implementing technological tools that could enhance and foster my student's growth in mathematics. With this in mind, I knew that entering into my Master's courses technology was something that I wanted to focus on learning more about and honing in on better practices to utilize in my own classroom. Fortunately Michigan State University has provided me with just that.

Going through each of the courses in my program, I have been able to improve in my own technological understanding and implementation. I have learned how to successfully search for technological tools that are age/grade level appropriate and implement them into my classroom with purpose. I feel more confident when I approach technology and feel well equipped to search for new technology to integrate in my curriculum. Michigan State University has far exceeded my expectations in this program and I am grateful for this experience!

Relationship & Technology

Relationship & Feedback

In TE 831 I had a professor that took the time to meet with each student in the class over zoom and have a 30-minute conversation 1-1. He did this simply to get to know his students before the course started to find out each of our goals. If there is anything you should know about me it's that when it comes to teaching I firmly believe in relationship building. I believe that most of the everyday conflict, behavior issues, etc. can be kept at bay by building relationships. My professor, Doug Hartman, did just this. By taking the time to speak with me and let me share my experiences with technology as well as by hearing his intention for the course gave me the motivation to complete the work for his course every week with great commitment beyond it being a necessity. Another important piece was he gave meaningful feedback on each assignment that was directly related to my work, giving me constructive criticism and encouragement. With his leadership and intentionality to build a relationship with myself as a person, educator, and student I flourished in this course. This approach only reaffirmed what I already believed to be true in my own classroom and encouraged me to continue in my efforts to build and maintain a relationship with students in my own classroom.

Technological Learning

While relationship was a big part of this course I also learned much about different technology that I could use in the classroom. I was able to take an ample amount of time to explore and create different technological lessons to implement

in my own classroom. I have never been technologically savvy and when I would implement technology in the past it was at a surface level rather than an impactful implementation into the classroom. After taking this course I was able to learn how to successfully implement different technologies with purpose and intention. I learned how to explore technology on my own and how to utilize it to accommodate to my classroom and my students. Therefore beyond just learning how to use technology I was given tools as to how to find new technology and successfully review and implement the technology in my own classroom. Another part of this course that was impactful to my technological perspective of technology how technology relates to teaching overall using the TPACK model. This Model was so influential because it tied all parts of teaching together to figure out where, as an educator, you stand as technology relates to your overall belief and implementation. This model helped me to see exactly what my struggle was and how to address it. It reassured me that my pedagogical knowledge and content knowledge were strong but my technological knowledge is where I was lacking, which is why my technology-based lessons seemed so inauthentic and as thought, they only scratched the surface of how technology could be used in my classroom. By discussing this model with my colleagues and professor I was able to understand the area in which I lacked and how to improve upon my understanding. By improving this area of my teaching I have been much more confident and successful of my implementation of technology.

Collaboration Amongst Colleagues

Communication & Feedback

TE 861C, Action Research K-12 Science Math Classroom, was another course where I found a lot of growth within myself as well. This course was incredibly challenging and it required a large amount of work and research. I myself do not get excited about research and I can find the information daunting at times but what made this course so impactful for me was that I was working with other Mathematics educators. By working with other educators, from all over the United States, talking about a subject that I am very passionate about only got me more excited to meet with my group each week. We were able to talk about what was happening in our own courses and what effects we are noticing in each of our classrooms. We were able to bounce ideas off one another and refine each other's thinking. Being able to collaborate with other mathematics educators allowed me to understand the struggles that they are each facing and how that compares to what I see in my own classroom. This also allows me to get new ideas to implement in my own classroom to help enhance my own teaching. We were able to respectfully challenge one another on our practices and raise questions on different topics and thought processes. Working with other educators beyond my own district was enlightening to see the similarities and differences in the challenges we face each day. This course was great for peer-to-peer communication. It allowed me to utilize other educators to enhance my own understanding of mathematics, teaching, and classroom practices. This course allowed me to refine my research and create a system to implement in my own classroom to benefit my students and improve their understanding of mathematical standards.

Integrating Subject Areas

Literacy & Math

TE 846, Accommodating Differences in Literacy Learners, overall was essential to my growth as an overall educator. Going into this course I saw the term literacy and it made me cringe a little bit. I am far from a literacy expert and the thought of integrating literacy into a mathematical lesson was intimidating. What I learned was the value in recognizing struggling literacy learners and how they are affected in my mathematics classroom. Not only being able to recognize those students that are struggling but how to effectively address their struggles and improve upon them to see growth in their mathematical abilities as well.

As I was deciding on which student to choose as my focus for the semester was fortunate enough to have a parent of a student who directly asked if there was anything that I could do to help enhance her mathematical understanding because they were noticing a disconnect when she was reading the directions for mathematical problems and actually solving the

problem. It was clear that this young lady would benefit from my study and quickly we started on this implementation of literacy strategies on top of the mathematical practices she was already learning in my classroom.

From the first assessment, she took to the final assessment not only did her grade improve but her ability to assess mathematical problems and solve them. Her growth over a semester was evident and unmistakable.

Seeing the growth that she made in just one semester was enough to change that "cringing feeling" into a feeling of necessity and confidence. By seeing the evident change within just one student I could see the impact that this could have for MANY students. Without this course I would not have seen the impact of literacy in mathematics first hand. I would have still been intimidated by literacy and focus solely on the math. By practicing literacy skills within my mathematics classroom I am now able to help students understand the mathematical questions being asked and helping them to solve these problems.

Conclusion

Now at the end of my master's education, I can safely say that each of these expectations for this program has been met! I have been fortunate enough to take courses that have challenged me and impacted the way I think, teach, and implement information. Each of the courses that came across my path were filled with information that either built upon my own understanding or opened my eyes to something completely new and different. Each professor and classmate left an impact on the practices in my own classroom. I am grateful for the experience that obtaining this degree has taken me on. It has only positively impacted my overall approach to education and the implementation of my curriculum. This journey to obtaining my master's has truly been beneficial in my personal and professional growth. I am grateful for the experience and the knowledge that I have obtained. Moving forward from this program I will now be equipped with the tools to effectively implement technology and critically analyze new information in education and the effectiveness it may have for my students.