

A Masterful Journey: Five Years of Change

By: Marcie Hughes

Over the past five years I have had the privilege of advancing my education and working towards receiving my masters degree. This is such an amazing opportunity for me and I realize that not everyone has this opportunity, so I am truly grateful to be in a position in my life where I can accomplish this. I obtained my Bachelor of Arts in Secondary Education Degree from Eastern Michigan University, with a major in Mathematics and a minor in History. After I received my teaching certificate I taught math at the middle school and high school level. I have six years of teaching experience and have taught Algebra, Advanced Algebra, Pre-Algebra, and Geometry. As a teacher I have always pushed forward and tried new methods to engage my students and encourage them to be motivated learners. As technology continues to advance, I have found that students become most excited to learn when I allow them to use new technology tools in the classroom. Learning to incorporate technology into the classroom quickly became a passion of mine and in turn I decided to seek out more knowledge about the best practices for incorporating technology into the classroom. I looked to Michigan State University's Master of Arts in Education (MAED) program to help me grow my classroom technology skills. The MAED program has taught me more than I ever expected and has allowed me to gain a new perspective on teaching in more fields than just mathematics and technology. The program introduced ways for me to incorporate literacy instruction across curriculums and gave me a newly found ability to solve complicated problems through design. Throughout the MAED program at Michigan State University, I can honestly say I have changed in numerous ways. This program has changed the way I view teaching with technology, allowed me to gain knowledge in teaching literacy, and has showed me how to solve any problem I come across in life.

Throughout my masters program, I learned that technology could be used interactively among students and teachers. The first technology course I took in the MAED program was TE 831, Teaching School Subject Matter with Technology. In TE 831, I was introduced to the world of wikispaces. My instructor, Jeff Bale, used wikispaces to create an interactive online forum for

our class to communicate through. It soon became clear that although I was taking an online course, class discussions and collaboration were still going to be a vital part to my online education. After I discovered the ease of using wikispaces, I created one for my own students to use to communicate with each other and me. My students already used their own technology devices at home when they are working on math homework, so I decided I would create a space where my students could openly come together to collaborate on difficult homework problems they came across where I could even jump in and help out at times. A main complaint I have always had with students who cannot finish their homework is that they do not have anyone at home who can help them. By creating a math-help forum for my classes I hope to give students a place to go to get homework help when they are stuck. Wikispaces then became a fun way for me to track student participation in different classes.

This masters program has also helped me evolve from being nervous and embarrassed to create online videos, to actually enjoying it. As a teacher in this age of technology, it is becoming expected that you will have to use video chat, create educational videos, or be taped in the classroom at some point. My TE 831 course helped me tremendously when it came to creating my first educational video. I don't necessarily like to videotape myself and broadcast it to the masses, but TE 831 showed me that there are many ways to create an educational video where you do not have to put your face on the camera. I ended up creating a video teaching "How to Solve Rational Equations" by compiling a group of step-by-step photos and music while narrating how to solve each equation with a voice over. This course helped me take that first step in conquering my fear of being taped while I taught. Another course that pushed me one step further in this area was my final course CEP 817, Capstone Seminar. Throughout this course I had to create videos to communicate with my classmates every week. I had to create videos to showcase my learning and progress throughout the course and I also had to create videos in reply to my classmates. My fear for the camera quickly took a backseat as I became accustomed to creating at least 3 videos a week throughout the course. I am very thankful that these were requirements throughout my masters program because becoming familiar with video chat and creating tutorial videos is an important skill a teacher in this day and age needs. These technology courses helped me conquer fears, grow, and develop into a more sophisticated and mature teacher. These courses took me out of my comfort zone, enhanced my communication skills, and developed my ability to teach online.

As a math teacher in a world of common core, standardized tests, and pacing guides, it can be hard to try to incorporate cross-curriculum lessons. A

requirement in my MAED program was taking TE 846, Accommodating Different Literacy Learners. At first when I realized this course was mandatory for the program I was a bit irritated. I wondered why, being a math teacher, I had to take this course. Of course, this class ended up being an eye opening experience reshaping my educational philosophies. Throughout the course I studied how literacy is at the core of every subject matter, and when students struggle with literacy all other subjects follow. In the course we learned a number of best practices for working on literacy in all classrooms. I then had the opportunity to work with a high school student and focus on literacy skills in the algebra classroom. I did a case study on a student with a history of literacy struggles. I taught an Algebra 1 unit on polynomials and focused on all of the new vocabulary throughout the unit. I used some of the best practices that we discussed in this course to teach the vocabulary and continuously reviewed vocabulary definitions each time we came across these special words throughout the unit. The differences between the pre and post assessments were extraordinary. This student had gone from virtually no understanding of these vocabulary terms to have a full understanding of them. By understanding the literacy well in this polynomial unit, this student was able to better communicate about the math problems and understand the content in the polynomial unit. It is easy to get so wrapped up in teaching subject content that we can forget that there cannot be real learning of concepts if students do not have the basic understanding of the words being used to teach those concepts. Incorporating literacy learning into my mathematics classrooms is now a must to ensure all students are learning in an equal setting.

My masters program has spanned the last 5 years of my life and within this large timeframe there have been a lot of changes in my life. One of these changes has actually been my career. I started this program in 2013, which happens to be the same year that I had my first child. I also had started a little side business in 2012. That little side business blossomed into a full-time photography business and in the fall of 2014 I realized I could no longer do both teaching and photography while raising a family and working on my masters. I had to choose, so I decided to pursue my photography business. One of my favorite classes in the MAED program actually allowed me to work on improving my photography business. In CEP 817, Learning Technologies through Design, I learned several valuable skills including how to work through solving any problem I come across. The main project for CEP 817 was choosing a problem I encountered in my daily life; work related or otherwise, and work to fix that problem. The course took me through a series of activities that taught me how to get to the core of my problem and several ways to come up with valuable solutions. The problem I was coming across in

my photography business at the time was how to customize every client's session to my best ability. Through the activities in this class I came up with questionnaires for all different types of sessions that I can automatically send out to clients when they first inquire about my services. These questionnaires have already saved me hours of time writing emails back and forth with clients while also providing me with consistent information about each client to help me customize their sessions. What I really loved about this course was the "five whys" activity, which helped me learn how to get to the root of a problem and discover what causes that problem to begin with. I can now look at any problem I come across in life and solve it in a highly effective way.

Throughout my five year journey in the MAED graduate program my life has changed in several ways. I have gone from being a full time teacher to now being a full time photographer. I have gone from having zero children to now having two. My graduate program has enhanced who I am as a person and developed my ability to teach a course using a tremendous amount of technology skills. I am now able to create and develop more lesson plans and activities that can engage students by incorporating technology. This program has helped me realize the importance of teaching literacy across all curriculums. The fact that not all students are on the same playing field with their literacy skills allows for students to then be at a potential disadvantage before I even begin to teach the content for the day. Through this program I have realized the importance of making sure I can do all that is in my ability to even the playing field in my classes by making sure important vocabulary is understood by all students before I get into the math content. I have also grown in my ability to solve real world problems in my daily life through this masters program. I have learned several activities, like the "five whys," that can help me get to the root of a problem and develop solutions that can fix a problem and turn the solution into an asset. My journey through the Master of Arts in Education program at Michigan State University has been one of much change and development and it encourages me to keep learning and striving to reach for more every day of my life.