New Beginnings and Butterflies

As an educator, I believe there is something about that time of year when Summer comes to a close and Fall is upon us. "Back-to-School" time is a time filled with new beginnings, a renewed sense of energy, a spark of creativity, and still, after 16 years of teaching, butterflies in my belly on that first day with a new group of students. In what other profession do you get the opportunity to start anew every September? I just love this time of year; getting back to my classroom before school starts to set up the room and prepare to implement all of the great ideas I have read about, heard about, and pondered over the summer.

Since starting the Masters of Arts in Educational Technology (MAET) Program at Michigan State University (MSU) in the Summer of 2011, I have enjoyed "Back-to-School" time even more! Each summer I have gathered with an amazing group of individuals; we have shared ideas, frustrations, successes, and have come to be a part of one another's Personal Learning Network (PLN) reaching out through Facebook groups and Twitter when we need inspiration or help troubleshooting issues. I have returned to school each Fall with a renewed passion for education, a deeper understanding of how students learn and the ways in which technology, pedagogy and content can come together to create an amazing learning experience for my students and myself.

The MAET program is offered completely online, overseas or as a hybrid (on-campus/ online) plan. I opted for the hybrid program. In my first summer cohort group I took three courses that laid the foundation for the rest of the program. Through these three courses, taught by Jodi Spicer and Allison Keller, CEP 810 - Teaching for Understanding with Technology, CEP 811 - Adapting Innovative Technologies in Education, and CEP 812 - Applying Educational Technology to Issues of Practice, I learned the importance of building and maintaining a professional learning network (PLN) that can be consulted regularly to learn from and share ideas with. Another focus of these courses was TPACK (Technological, Pedagogical and Content Knowledge); thinking about how the technology will support the teaching strategies and make the content more accessible to students. It is also good to look at our teaching strategies and to consider how our approaches to our students will make the content we are trying to teach them more accessible and understandable. During my first summer in the MAET program, I began blogging regularly. It was through this blog that I really found my voice and realized the power and potential that blogging can have. This inspired me to begin blogging with my Science students who enjoy having an authentic audience and receiving feedback from their peers and other visitors to their blogs. The one item I am most proud of from my first summer with MAET was the start of my classroom website through my Wicked Problem Project. I chose to tackle the issue of textbooks that are outdated, lack detail and do not engage our students by developing a website to serve as a resource to supplement and, in some cases, even replace the textbook. My classroom website started that summer, but has continued to grow and develop since then into something even more powerful than I initially realized was possible.

As a Science teacher, I was drawn to CEP 806 - Learning Science with Technology, to explore ways that technology could help to create powerful and worthwhile science experiences for students. I had been using technology in my science classroom for some time, but with my new knowledge and experience gained that summer, I was excited to see what more I could learn. I found this course to be the most engaging of all of my MAET courses. It was in this course that I truly got to play the role of both teacher and student. CEP 806, taught by David Wong, Ph.D., had three main inquiry projects; the first of these was to assess how students find information using the internet, the second compared the potential benefits and challenges of learning science with internet simulations and the third project had me comparing science learning online versus learning science in a face-to-face environment. In the first inquiry project, I surveyed my students and conducted group research on the ways the students would find more information about the water cycle using the internet. It was surprising to note that many students had never noticed the number of search results returned in their initial Google search. Many students learned through the activity that not all websites and web results are good and reliable sources. In the second inquiry project, my students learned about bottle rockets through multiple methods, including text explanations, online simulations and hands-on building and launching of bottle rockets. Students were asked to describe their experiences with each method and to describe how well they felt they understood the subject. A podcast describing this project and it's results can be found in my professional portfolio showcase. In the third, and final, project of this course, I was able to take on the role of student to compare science learning online to that of a face-to-face environment. Two experiments were conducted with a partner. In the first, we worked together face-to-face to build a device to keep an egg from breaking when dropped from height and in the second we worked together online, via Skype, to launch Peanut M&M's with a catapult made out of pencils, rubber bands and a spoon. By completing these experiments, in this way, I was able to better understand the complications that can be involved with online learning. This does not by any means suggest that online learning cannot or should not be done, but by participating in activities such as these and taking online courses, I feel I have a better appreciation for what it takes to both teach and learn in online environments. Each of the projects in CEP 806 helped me to gain greater insight into how my students learn and the role that technology can play in the deeper understanding of scientific concepts when the technology is applied appropriately.

Once again, in the Summer of 2012, I returned to the beautiful campus of Michigan State University to be a part of the Year 2 Summer Cohort. The courses that made up this part of the MAET Program focused a great deal on creative thinking and purposeful repurposing of tools and ideas. Instructors Punya Mishra, Ph.D., Laura Terry and David Goodrich led us to delve further into the idea of TPACK and how to tie technology, pedagogy and content together in a meaningful way. Through the book, Why Don't Student's Like School, by Daniel T. Willingham, I truly examined how and why my students feel and act they way they do in the classroom and began to gain a better insight into how I might shift my instruction to better meet their needs as learners. In our group project, Understanding Understanding, my group looked at misconceptions and/or alternate conceptions people have related to how rainbows form. This was a fun

project that allowed us to learn not only about how people's perceived understanding of content can get in the way of true understanding, but also allowed us to work on video and audio editing through the creation of a final video piece for the assignment. Finally, in my DreamIT proposal, I looked at redesigning my Earth Science course by bringing together project-based learning and the flipped-classroom model of instruction. Through these experiences I truly began to transform my teaching in the 2012 - 2013 school year. My classroom website has continued to grow and become not just a resource, but an extension of my classroom. Student blogging has also become a larger part of our classroom routine, not just writing to be seen by myself and peers in our school, but writing for and responding to peers across the country through connections made with other teachers and their students through the Comments4Kids blog. My communication with students and their parents has also been enriched through the use of a classroom Twitter account and the text-based message system, Remind101. My use of learning targets, or "I can" statements, has also begun to provide clearer expectations for student learning, leading to less frustration and assessment anxiety from students, parents and myself.

Another course that truly enhanced my thinking regarding showcasing work, both my own and that of my students, is CEP 813 - Electronic Portfolios taught by Patrick Dickson, Ph.D. In this course we discussed what it means to show one's "best work". It amazed me how many different opinions there can be on this question, both from my fellow classmates and from my own students. We are so accustomed to the grade or score we get on an assignment determining it's value or worth. In this course we discussed whether it was the grade earned or the sense of pride or accomplishment one feels about a piece that is more important in determining "best work". Through this course, I was not only able to spend time further developing my professional portfolio, but was also able to guide my own students in the creation of their first-ever electronic portfolios. I truly loved the format of this course. Dr. Dickson created an environment in which I felt safe and comfortable sharing my work with my online classmates that I had never met in person. The "houses" and "buddy" system allowed for a smaller group of peers to share with and provide feedback for. I found this system to be so beneficial for me that I incorporated it into my own classroom with much success. I have made it a priority this year to have my students start the year by creating an electronic portfolio to collect their "best work". I also hope to encourage my school district, through my position on the district's K-12 Technology Committee, to showcase more examples of our students "best work" on our school website.

As my MAET journey comes to an end, I look back on the journey fondly. I will continue to rely on the many connections I have made through my PLN for inspiration, support, and an understanding of technology integration through our shared MAET experiences. I will continue to consider TPACK when deciding what tools to use or how to integrate technology into a lesson. I know that while this journey comes to a close, the lessons I have learned will not end, but will be applied in my classroom and shared with others in my building, my district and beyond. I plan to continue to present at conferences, like MACUL, to share with other educators how I am using technology in my classroom. While my MAET journey has not been a long one, it has been one full of growth, both

professionally and personally. I know that I am a better educator today than I was when I started the program just two summers ago. Endings can be hard, but with this ending comes another new beginning, made even more exciting by all that I have learned and am excited to share with my students and colleagues. The start of another school year is just a few short weeks away. I will be back in my classroom putting up bulletin boards, setting up my blog settings for this year's students, and preparing for that first day of school when there will undoubtedly be another visit from those butterflies in my belly.