

Teacher Transformation

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When I applied to Michigan State University as a senior in high school, I had every intention of studying business. Upon my acceptance to MSU, I started my journey in business and was accepted to the business school. During my sophomore year I was hesitant about my career choice, and reflected upon my interests. Ultimately, I ended up applying to the College of Education because I realized I wanted to make a difference in the world as a teacher. After completing my internship, which is part of the fifth year teacher preparation program, I made my way into the real world of education. I ended up teaching in inner-city Chicago for three years, and quickly realized I wanted to learn more about education.

After relocating back to Michigan to teach in Grand Rapids I took time to research a master's program that best suited my interests. I decided to apply for the Master of Arts in Education Technology (MAET) at Michigan State because the program best suited my schedule, and because technology had always been an interest of mine. I had a unique experience as an MAET student since I participated in two summer hybrid sessions. The hybrid sessions allowed me to take three courses in six-weeks during the summer months. It consisted of two weeks of face-to-face learning, and four weeks of online learning. The two weeks of face-to-face work was intense, and fast paced. The days were packed full of learning, and collaborating. For two summers, I spent my summer "break" becoming a better teacher. The MAET program has changed my approach to teaching, and has opened my eyes to the possibilities of education technology. I have learned the importance of productive struggle, adapting innovative technologies into my current practices, and how to better understand what learners bring to the school setting through the Technology Pedagogy Content Knowledge framework (TPACK). These three concepts have been the most meaningful concepts of my teacher transformation, and have changed the way I approach my job every day.

Productive Struggle vs. Gradual Release

I have always practiced the gradual release model when teaching new content to my students. I introduce a target, model the learning, allow students to work together, and then allow students to work on the skill independently. Although gradual release is a valuable teaching practice, I drastically changed my view on the gradual release teaching method based on the coursework from *CEP 810: Teaching for Understanding with Technology*. I truly understand the importance and necessity of implementing productive struggle into my teacher practice transformation.

During my first summer of hybrid courses, one of the most impactful experiences was the daily, and dreaded, Quick-Fire. After day one, we knew there was a planned Quick-Fire, but we had no clue what the activity would entail. Before the start of every Quick-Fire, I felt the pressure and anxiety of trying a foreign digital platform to explore new tech-tools. The time constraints and expectations for every Quick-Fire were unique. During this time we were encouraged to work collaboratively, and avoid seeking help or clarification from our instructors.

When given a challenging task during a Quick-Fire, I was able to build my own critical thinking skills and develop grit to approach an unknown task. This was an eye-opening experience as an educator, to step inside the pressures I put on my own students. From this experience, when I want to introduce a new technology, I do it in a Quick-Fire format.

The ultimate epiphany of the Quick-Fires, was recognizing the need to provide a safe learning environment for my students to take risks. I realized the way I could improve my students mindset to approach unknown experiences, is to allow them to discover new experiences without explicit modeling and teaching. By providing a safe environment, which values failure, I learned to value the idea of “play,” or as I tell my students “tinkering.” An important part of using productive struggle as a teaching method allows student to make things, try it out, learn as they go, and accept failure as part of the process. I have changed my mentality when introducing new skills. Instead of showing my students how to do something, I have learned that students are more successful if they are able to embrace the challenge as part of the process of finding their own path to success. Ultimately, this makes the learning more impactful to the individual student based on their own personal experience.

Adapting Innovative Technology Experiences into the Classroom

The two weeks of face-to-face learning, was my favorite part of the hybrid sessions. I enjoy learning with others, and I appreciated the flexibility of the hybrid program. The most stressful assignment of the MAET program was planning and hosting a Maker Faire for *CEP 811: Adapting Innovative Technologies in Education*. Even though the Maker Faire was stressful, it was one of the most meaningful experiences I have participated in. During the coursework of CEP 811 we immersed ourselves in the world of “makers” by studying how to repurpose the world around us. From this course, I learned how to create purposeful and memorable learning experiences through the lens of a “maker,” which helped me learn how to adapt these ideas into my teaching.

When the Maker-Faire assignment was introduced, I was unaware of what a Maker Faire was. All of the learning around this concept was foreign to me. We spent the first few days of face-to-face time learning about the background of the “maker movement.” From this research, I learned that using technology did not necessarily mean a device with a screen. I realized that adapting innovative technology could be any means of creating something. I had an assumption about the term “technology,” that drastically changed and has impacted my perspective of education technology.

As a cohort we developed a marketing brand, advertised our event via social media, and coordinated logistics for the actual event using the Design Thinking Process. The whole group planning was very time consuming, given the fast paced timing of the event (less than a week). We had a lot of decisions to make, and had to pull together to recognize one another's strengths in a short amount of time. The whole group planning aspect of the Maker Faire taught me the importance of social media communication, the power of Design Thinking and that even a small group can pull off a big event.

The goal of the Maker Faire was to experience what it was like to plan “maker activities” that engage learners, meet learning goals, and actually test them out with students. Intertwined

into the overall planning, our cohort was split into pairs/triads to plan an individual event for a Maker Faire booth. Each team's contribution needed to have a different learning objective, in order to spark the diverse interests of Maker Faire participants. We had a variety of events throughout the entire Maker Faire, and for my event I explored a learning experience that aligned with content that I teach. I wanted the event I hosted to align with content I teach, with hopes to better understand how I could adapt technologies (without screens) into my classroom. Through the Design Thinking process, my partner and I, developed a successful event which helped me grow as a learner and teacher. You can read more about the planning and specific event on my [GoNorthwithMsB](#) blog.

The Maker Faire experience with the MAET program allowed me to feel confident in trying out the maker mindset with my students and district. During the 2016-2017 school year my school district was brainstorming a way to implement the ideas of a "maker movement." My school district came up with the idea of hosting STEAM nights (STEAM: Science Technology Engineering Art and Math). The Interdisciplinary Technology team spent an extensive amount of time planning these events. As a member of the team, we were able to host four STEAM night events for the entire community. From the Maker-Faire experience via CEP 811, I was able to support staff, students, and families with the mindset of learning by doing. Something I would not have been as confident with, without this experience. Planning the MAET Maker Faire from the ground up, allowed me to gain confidence in myself as a maker in order to plan innovative learning experiences in my classroom/community. From this experience I was able to jump into the mix, and felt capable of approaching many of the activities.

TPACK: Grant Proposal

The use of Quick-Fires and the Maker Faire are two elements of learning I bring into my classroom everyday. Both of these experiences were from courses during my first summer hybrid sessions. Year one, was also when I learned how to understand the complexities of technology integration through the Technological Pedagogical Content Knowledge framework (or TPACK). The TPACK framework transformed my understanding of planning lessons based around student needs and their understanding. Year one was an initial investigation of the framework by writing a lesson plan. During year two *CEP 800: Learning in School in Other Settings*, I learned how to use the TPACK framework on a greater scale by writing a grant.

When thinking about using technology as an instructional learning tool, I have learned the necessity to understand the relationship between context, content, pedagogy, and technology. For CEP 800, one expectation of this course was the *DreamIT project: A Technology Based Grant Proposal for Transformative Learning*.

The focus of this project was to develop a grant proposal that presents how I would integrate new technologies in a transformational way to help increase my students' understanding in a content area. From the DreamIT project, I learned how to use the TPACK framework on a much deeper level. Rather than the end goal being a creative assessment or learning objective, the end goal was to integrate a whole new technology into my current teaching setting.

The planning of my DreamIT project was heavily tied to the TPACK framework. In order to decide what in fact I would write the grant for, I used the TPACK framework and Design Thinking process to come up with a problem I see within the classroom that could be transformed by a new technology. By using the Design Thinking process I realized that students

have a hard time building upon or changing their existing understanding within a topic. As a result, students are unable to apply this knowledge to other aspects of science, and make a deeper connection to the world around them. From this problem I decided to write my grant for a new technology written about the connections to context, content, pedagogy, technology, and TPACK all together.

In order to write a meaningful and useful grant, I needed to convince the audience to support my grant. I was able to tie in all aspects of TPACK to support the new tech-tool and convince my audience that it would benefit more than just science content. I also explained the versatility of the learning platform for both educators and students. The DreamIT project started during the face-to-face session, but was completed independently during the four weeks of online learning. I know that this grant proposal project heavily impacted my role as a teacher, because I have since been awarded the grant and will be able to try out the new technology with my students this year. I have received feedback from the foundation, who so generously supported my grant, and the feedback about my understanding of my students was very well praised. I know that the amount of time working through, and synthesizing each part of the TPACK framework is what created a strong and meaningful proposal.

Synthesis of Master's Program Teacher Transformation

Throughout all of my work in this master's program at Michigan State University, I have learned so much. I have met a fabulous group of educators to collaborate with, and have transformed as a teacher. However, the transformation has only just begun. I have strengthened my teaching practices by incorporating productive struggle into my everyday teaching, and allowed time for my students to "tinker" and create together. All of the work through the MAET program has been valuable to my role as a teacher. The advantages of every project is that they allowed me to take risks. Risks that would be difficult to take in my everyday life and in my classroom. These risks have helped transform my passion and energy toward teaching. They have also offered opportunities for further exploration and learning. These experiences have influenced who I am today, and what I do in my professional life in the future.