

# **The Pedagogy of Tomorrow.**

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Throughout my few years of teaching I had always been told that I was the “techie”. People would always come to me for help and I absolutely loved walking them through how to troubleshoot these issues. I quickly realized that I not only had a knack for technology, but really loved finding new and innovative ways to teach using technology. After one of my friends told me about the Masters of Arts in Educational Technology (MAET) program at Michigan State University, I knew that I had to pursue a degree in educational technology. Michigan State University’s MAET program is nationally ranked and award winning. This is one of the main things that drew me toward this program. I have always had a love for learning, but I wanted to make sure that my master’s degree was from one of the best programs out there. I wanted a program that would give me the edge and experience necessary to completely transform my knowledge of teaching and learning.

In the short time frame of a year and a few months, I have almost completed my coursework to earn my degree. This innovative program has offered me the opportunity to expand my pedagogical knowledge in ways that I never knew possible. Not only have I learned a great deal about instructional technology, I have also learned even more about how I can change my teaching to support student learning in a variety of different areas. Throughout my journey, teaching has actually become pedagogy; an art that is embellished with technology, design, understanding, and theory.

Pedagogy is an art that is embellished with technology. This aspect is one of the main focuses of the MAET program and was probably one of the most significant areas of development in my own teaching and learning. Although most of the classes throughout my masters degree have influenced my philosophy on technology in some ways, a few stood out as significant contributions to my pedagogical shift. During my year one summer cohort I took a class called CEP 810 ([Teaching for Understanding with Technology](#)). This class not only focused on educational theories but also taught the foundational knowledge of TPACK (Technological Pedagogical Content Knowledge). TPACK is the meeting or trilogy of three types of knowledge: pedagogical, content, and technological. When these three ideas work together they form the idea of TPACK. This theory really changed my way of thinking about how to incorporate technology into the classroom in the sense that we need to reverse our thinking: we first need to think about the learning, and secondly find tools (technology) that will get us to that learning. Another class that also influenced my technological knowledge was CEP 805 ([Learning Mathematics with Technology](#)). In this class we looked specifically at how to analyze and choose the best online tools that provide support for all students. We developed a rubric to think through when looking for these new tools for our students. The process of creating this rubric helped me to expand my vision of what technological tools can actually provide and make sure that the tools that I choose not only meet the learning objectives but also push students to think instrumentally rather than rationally (more on this later). Last year I took on the job of technology chair at my building. In addition to teaching, I am responsible for creating professional development workshops

and providing one on one help to the staff. The TPACK framework has also influenced this facet of my teaching as well. Many teachers have always complained that they aren't given enough support to actually implement the technology they learn about during these sessions and they usually leave feeling unmotivated and defeated. In conjunction with a class called CEP 817 ([Learning Technology by Design](#)), I worked to redesign the way we approach and teach professional development to change this negative connotation. The framework of TPACK shifted my focus from the technology to learning, and the Stanford design model pushed me to change my perspective to first empathize with the staff to create something that met their individual needs as teachers. I began to approach the use of technology from an entirely different angle because of these new theories. I felt more equipped to choose resources and technology based on the types of learning outcomes rather than just the "cool features". To be honest, I would have had absolutely no knowledge going into this position about instructional technology if it weren't for the MAET program. CEP 810 and CEP 817 gave me the knowledge of TPACK and design theory that pushed me to think backwards and focus on the needs of learners and learning objectives first and then search for technology to support that learning second.

Aspects of design are found in almost every facet of our lives, especially in pedagogy. I never realized how engrained the ideology of design was in the area of teaching until taking CEP 817 ([Learning Technology by Design](#)). This class taught me how to really engage in the process of design from start to finish when planning lessons and activities. One of the most intriguing parts of the Stanford Design Model is the concept of empathy. Empathy is the first step in design and pushes creators to take time to view the problem from their user's point of view. In our world this concept is apparent in many of the good examples of design; automated soap dispensers, collapsible baby gates, and even portable CD players. All of these items were originally created when a need arose and someone designed a product to address that need. In my own teaching design has many critical implications. From the classroom layout to lesson planning and activities, incorporating design into each of these areas allows me to always keep a focus on the specific needs of my students. Classroom design must incorporate the best practices of collaboration, community, and learning. Lesson design must focus on the end goal for students first, then be designed accordingly to meet these objectives. Activities within the classroom must be designed to utilize techniques that develop 21st century skills in students.

Design is also incorporated in the development of online learning management systems. During CEP 820 ([Teaching Students Online](#)), I was assigned a project to develop an online unit of instruction using the LMS (learning management system) Schoology. During this class I was able to learn about how to properly design curriculum in a blended or online environment. The timing of taking this class was fantastic because my school district was currently in the process of implementing Schoology district-wide. Throughout CEP 820 I was able to begin creating my own online course that I could implement within my classroom. I have been running a flipped classroom for a few years now and this course allowed me to combine all of my content that had previously been in separate locations into a one-stop-shop for my students. Once again the theme of design came up here because this helped fix a problem that many of my students had. Previously all teachers were using different types of technologies to post materials online and students had to

constantly navigate to different areas to find what they needed. Schoology allowed them to have all of their content in one area with one set of credentials. Since this course I have continued to make improvements on my Schoology site while trying to keep the 5 modes of design in mind.

Understanding is a critical component of pedagogy and one in which my own understanding of understanding has changed dramatically throughout this program. Previously I had the idea that if a student scored well on a test, they must have understood the material. After taking many courses in the program, however, this thought quickly changed. A mastery of content and skill does not specifically imply understanding. Specifically in CEP 805 I read an article about instrumental vs. relational understanding by Skemp (1977). This article discussed the ways in which students understand and learn mathematics. Many students believe they "understand" a topic but when faced with a slightly different problem they use the same pattern as before without taking into account any adaptations based on the context. Students who understand instrumentally simply are memorizing a pattern and sticking to a set of rules to get to the final answer. They are unable to analyze, synthesize, and evaluate due to this low level of understanding. Their knowledge consists of lower level thinking skills that lead them down a single path. As Skemp states in his article, "all they want is some kind of rule for getting the answer. As soon as this is reached, they latch on to it and ignore the rest." (P.4 Skemp 1977). Relational understanding involves the use of higher level thinking skills in which students can make the transfer of base level knowledge to an unfamiliar context. When presented with a situation that doesn't follow "the rules", they can adapt and conceptualize the problem in order to get to the answer. I have seen this situation so many times as a teacher and I do not want to perpetuate this thinking. I want students to leave my class knowing how to adapt the information they've learned to new situations that don't just "follow the same pattern". As a teacher it will be one of my main goals to foster this type of understanding in my students through the activities, projects, and information I present. I have started to modify the curriculum so that the answer is not the focus of every problem. Incorporating more real-world problems for students to practice on a daily basis will encourage higher level thinking and the ability to transfer knowledge to new contexts with practice.

Theory is a concept that is deeply rooted throughout the history of pedagogy. We continually change the face of education when we find new theories for better learning and outcomes. Theory has just recently begun to change my thoughts and ideas about pedagogy and I have finally realized its place within education. Throughout my MAET career, I have been immersed in learning about constructivist, behaviorist, cognitivist, and many other theories. CEP 800 ([Learning in School and other Settings](#)) was the first class where we began to discuss exactly how theory connects and applies to us as teachers. Theory is not about finding the "right" way to teach, nor is it about finding a cure all for education. Theory is about experimenting with different avenues of teaching and learning to find the sweet spot of which one works for you. As educators we can combine several aspects of these theories together to create a pedagogical approach that works for our specific situation. We cannot possibly find the one true way to teach because our students are so diverse - each are created with specific preferences of learning, backgrounds, and prior knowledge. From CEP 800 I was able to blend the thoughts of each of these theories to begin developing my flipped-mastery-gamification approach that I will implement this year. Another class that changed my

perspective on online learning theory was CEP 820 ([Teaching Students Online](#)). Going into this class I had no idea how to develop an online learning platform that would encourage collaboration, communication, and exploration. Being involved in many online classes myself, I knew going into this class what was wrong with online learning, but I didn't ever have the right answer for how to go about changing this. This course taught me to use the backwards design approach when developing online learning so that I could ensure that my objectives were taught and carried out correctly through the materials I provided to my students. I also learned how to create discussions and get students involved even through distance learning. Throughout my program I learned that theory is not the answer, but it is one of the steps that get us closer to our ultimate pedagogical approach.

All in all, the MAET program at MSU guided me through the creating, changing, and polishing of my own pedagogical approach. I am extremely blessed to have had this experience and I truly feel that my teaching will be revolutionized because of this program. Each and every one of my courses pushed to think outside of the box, challenge my own misconceptions, and dive deeper into my thoughts about teaching and learning. I know throughout my teaching that I will continue to change, polish, and create new meaning of my own through my experiences in education. The MAET program at MSU was just one of the big stepping stones along the path to the pedagogy of tomorrow.