

“Expanding the Toolbox: Technologies, Models, and Creative Tools for Effectively Teaching Adult Learners”

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The most common reaction I get when I share that I am pursuing a MA in educational technology is “Educational technology? What’s that?” Though the Association for Educational Communications and Technology defines educational technology as “the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources,” my response is typically reduced to “I’m learning about how to use different technologies to maximize students’ learning.” That satisfies most people, but others want to know what kind of technology. “Oh, like white boards and iPads?” they might ask. That’s when I usually try to take the conversation to a theoretical level and explain how it’s not just about the latest and greatest technology, but choosing which methods are going to maximize what the students learn. I like to remind people that a pencil and paper can be thought of as a type of technology. Used together pencil and paper allow for a systematic way of communicating and recording ideas, after all.

As my MAET program is nearing its end, it turns out that what I am most proud of is having become adept at utilizing a wide range of technologies (See Figure 1). I have recorded, edited, and published videos and webcasts online using screencasting software like Jing, QuickTime, and Camtasia Studio. I’ve produced podcasts introducing original content and creative commons audio. I’ve designed multiple websites from scratch using WordPress and Google Sites. I’ve created games and gamified experiences using prototypes made out of cardboard, paper, and other recycled materials. I’ve designed lesson plans and training manuals in Google Docs as well as training presentations using Prezi and PowerPoint. Finally, I’ve written several graduate research papers in APA format using Word and Google Docs.

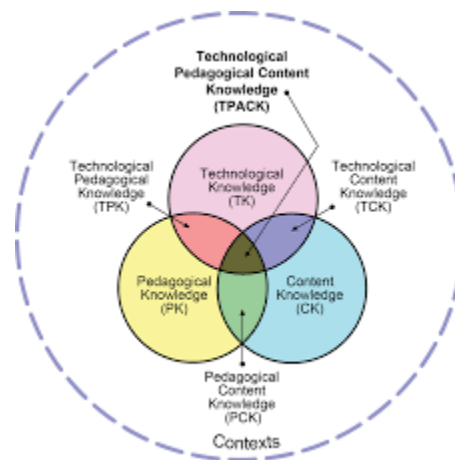
Figure 1. Technologies Mastered in the MAET Program



Before joining the program, I hadn't ventured out much beyond the MS Office Suite, so it is exciting to have honed new and expanded skills. I feel as though I have readied myself with a toolbox full of useful tools that I can utilize to educate the audiences I wish to engage and that is empowering. I plan to employ these technologies in my work as a social entrepreneur and may use these in future roles within a corporate environment.

Another major takeaway from the MAET program has been the models that I have learned and put into practice that will continue to guide my practice as a teacher and designer. The two most important and influential-to-my-work models I have been introduced to in this program are the TPACK Model and the Stanford d.School's design thinking methodology. The TPACK Model, made popular by my Michigan State University's very own Dr. Matthew Koehler and Dr. Punya Mishra is a useful guide for teachers on how to use what we know (actual content expertise, knowledge of educational theories and strategies, and the role of technology) to effectively teach and engage students (See Figure 2).

Figure 2. The TPACK Model



In my Learning in School and Other Settings (CEP 800) course, I utilized the TPACK model to design a lesson plan to teach a group of finance professionals some screencasting software that would help them to keep better office and training manuals. These training manuals were later used to document step-by-step instructions on how to perform particular job duties, which were extremely useful during employee's holiday and sabbatical coverages and during job transitions.

There are countless other ways to apply the TPACK model to teaching and learning opportunities both inside and outside of the classroom. I have found it particularly useful to remember these three knowledge forces at play (content, technological, and pedagogical), when evaluating the potential effectiveness of training and education proposed by my fellow colleagues in both corporate and start-up settings. For example, when assessing the potential effectiveness of a course or training, I now make a concerted effort to understand the

instructor's background, to experiment with different pedagogies, and to consider the effectiveness of a wide array of technologies in order to maximize learning outcomes.

The Stanford d. School's design thinking methodology is another model that provides a framework and helps designers to follow a consistent process and deliver results. The Stanford d. School's model describes five phases of the design thinking processes and the iteration that must go on in order to arrive at a viable final product or service offering (See Figure 3).

Figure 3: The Stanford d. School's Design Thinking Methodology



Image by the Stanford d.school

In my Learning Technology through Design (CEP 817) course, we have been systematically working on each phase over the course of the semester producing labs and solving problems specific to a topic area of our choosing. Though I have been doing work with first generation college students for some time, I learned some surprising facts as I was completing the empathetic research for this course. While creating a character profile, I discovered that my target client is more likely to be female and more likely to be Latina. I was also able to confirm a lot of what I have witnessed to be true so far in my work with actual clients. The fact that location and financing are prime concerns, for example, was expected. The Stanford design model is one of the most popular models in the design industry and I can understand why. Following the process has delivered a lot of surprising and valuable results.

Similar to the TPACK model, the Stanford d. School's Design Thinking Methodology has also enabled me to critically assess the work of others. I am able to ask more educated and targeted design questions. For example, I now unabashedly ask product and project designers about the number of iterations their design has been through to arrive at its current state. My now

expansive knowledge in this area allows me to better assess the quality of any given project or product design.

Finally, the MAET program has taught me a number of key cognitive tools that can spark creativity in learning environments. Prior to joining the program, I would not have considered myself a particularly creative type. However, my work in the Creativity in Teaching and Learning (CEP 818) course, in particular helped me to debunk that notion. Over the course of several months, I explored the cognitive tools of perceiving, patterning, abstracting, embodied thinking, modeling, playing, and synthesizing in great detail. I recall a breakthrough in the modeling module of this course. One of the biggest challenges I face helping college-bound students navigate their finances is getting them to register what a critical role student loans can play in their financial situation long-term. Most students I have worked with are more focused on the day-to-day expenses like books and their cell phone bill, and do not consider student loans a big deal. It's only once the average college student graduates with nearly \$40,000 in student loan debt, the grace period ends, and they have to start paying back an average of \$351 a month for ten long years, that reality sets in. I was able to create a model to help my students understand the impact of one of the first and most important financial choices they will make *before* they make it by designing a student loan model using pennies and some basic manila folders.

I am grateful that through the engaging, creative work I have done in the program, I have learned to trust the creative process and have gained confidence in a solid platform of creative abilities that I can build upon over time. As teachers and business and community leaders, I feel strongly that we have a basic obligation to improve the lives of those we serve. Engaging our students, clients, and community members with exercises that develop their creativity and require their unique inputs is critical to fulfilling that basic obligation.

As I reflect on what I've learned over the course of my graduate work in educational technology, I see now how professors and others in the MSU community have taught me using the very principles I have learned to teach in this program. This very reflective essay, for example, is an exercise in synthesizing. Each member of the faculty and staff within the MSU community is ultimately a teacher's teacher, and I applaud these individuals for practicing what they preach and finding more and better ways to do so on a continual basis.

As a non-traditional teacher among many traditional teachers in the MAET program, I am happy to share that the MAET program has suited me well. From Day 1, I have been able to customize my learning, apply theories, and explore areas that I am passionate about, including social entrepreneurship, financial literacy, family and community-building, and innovative technology that can improve our lives. Never once did I feel like my non-traditional background was unwelcome. On the contrary, I felt that my unique inputs were highly valued and sought after in every single course in the program by students and professors alike.

Throughout the MAET program, I have been consistently impressed with the high quality of teaching as well as the passion and empathy my teachers have had for us students. On a number of occasions I have had teachers go the length to connect me with other like-minded students they have come across well after I have completed their course simply because they took the time to really “get me” and the other student and form the connection. It is gestures such as these that make me extremely confident that I made the best choice possible when choosing Michigan State University and the MA in educational technology program. I imagine the opportunities to connect with others both within and outside the MSU community will continue to grow thanks to the authentic relationships I have formed with other students, faculty and staff over my years in this program. I am extremely thankful for this valuable experience and eager to impart what I have learned to the communities in which I live and work.