Foundational Principles Building Professional Experiences

Ashlie M. O'Connor

Michigan State University

"The only time you relax is when you have technology in your hands," exclaimed my mother. That single statement explains my background, my life, and my future. The single statement from my mom made me realize what I wanted to do for the rest of my professional career: embedding technology into professional practice in education.

Looking at the way I live my life, I can conclude two things: I am driven and I am a learner. I always knew I liked to learn how technology works and how to make my life more manageable with it. So when I became a new mom and worked full time, I realized I could use technology to further engage students, make learning available anytime, and work more from home rather than being confined to the four walls of my classroom. After reflecting on my career, I felt compelled not to keep the benefits of using technology in education to myself. I wanted to help other educators see how technology can transform teaching practice and student learning, but I was missing one key component: understanding the research and theory behind integrating technology into education. I knew there were benefits, but when asked blatantly to describe what the benefits and research behind integrating technology into the classroom, I was unable to fully develop an explanation and discuss ways to help teachers, administrators, and school districts to meet the 21st century learners' needs. Finally I also knew that I could not do this by focusing solely on my classroom; I needed to look at things from a broader perspective.

I began researching educational technology programs and found that Michigan State University offered a nationally ranked program. The Educational Technology program at Michigan State University has four main themes. First, learning by design (engaging and

interacting with learned knowledge). Secondly, multiple levels of conceptual integration (face to face, online or a hybrid of both). Third, innovative use of technology (creativity, repurposing, effective and practical use). Lastly, scholarship for improvement (continuous evaluation and improvement within the program). I felt an importance and connection to all four of these themes on both a personal and professional level. I immediately applied, was accepted, and became a humble yet proud student in the Masters of Educational Technology Program.

While beginning my journey in the MAET program, I simultaneously volunteered to be an instructional technology coach within my district to begin the process of understanding how to work technology into the hands of fellow educators in their classrooms. I wanted to gain experience while taking classes to learn and practice all at once. Throughout this process, I began to develop three main professional goals: working with and coaching learners, understanding research and theory, and designing effective professional development to integrate technology into classrooms to support student learning and engagement.

Working with and coaching learners is a foundational cornerstone in my profession as an instructional coach. Instructional coaching involves working with many different roles in education. Working with teachers at a classroom level, administrators at a building/district level, and students at a subject level requires multiple approaches to teaching others. " Instructional coaches are typically responsible for co-planning, modeling instruction, co-teaching, observing teachers, offering constructive feedback, and promoting collaboration and reflection among teams of teachers by facilitating professional learning communities" (Denton & Hasbrouck, 2009). While the job description is extensive, all components involve working with educational

stakeholders within the profession. Understanding how people react to working with another

educator is essential in making this position a success. In the past few years, educational leaders

have worked tirelessly to retract the old way of thinking that classrooms are silos and do not

interact with other classrooms. Education is shifting toward promoting collaboration and

creativity and cross-disciplinary teaching. As an instructional coach, if I approach learners the

wrong way, my presence may neither be welcomed nor effective. CEP 800: Learning in School

and Other Settings helped me understand how people learn. We discussed and analyzed driving

questions behind the act of learning. Some of the questions were: How do we learn?, How do we

transfer this learning to other contexts?, How do we forget?, What drives us to learn?, What does

it mean for teaching? A resource that supported the investigation and discussion of these driving

questions was the book, *Why Don't Students Like School* by Daniel Willingham. The book

focuses on the student thought and how students and teachers learn. Willingham breaks the

explanation down into nine different parts of thinking, educational practices and learners. One

particular chapter that changed my method of approaching peers was Chapter 6: *What's the*

Secret to Getting Students to Think Like Real Scientists, Mathematicians, and Historians? In

which Willingham discussed the differences between novice and experts and how to support

novices in becoming expert. By reading the book and utilizing it in CEP 800 I have gained a

better understanding of learning. Another class that helped support working with learners is CEP

815: Technology and Leadership. This class emphasized management of technology in

education. As leaders in technology, the class examined current ethical issues arising in

education that needed to be discussed and how to raise awareness of this issue. One project that

was significantly impactful was developing and hosting a webinar on digital citizenship in

schools. Our webinar focused on the integration of three different types of digital citizenship

lessons that need to occur within schools to help transition students from technology users

technology citizens. In a 45 minute webinar we discussed student privacy, athletic and

professional recruitment, and professional use of devices and technology in the workplace. This

project helped my approach to learners by analyzing relationships between learning and

technology. It also touched on ethical and social implications of technology not only in schools

but also in a professional setting.

　　　　Understanding research and theory is another integral part of my position and

instructional technology and data coach. In Simon Sinek's video (2009)., *Start with why -- How

Great Leaders Inspire Action* he discusses why the company Apple has so much success. He

explains it is because they know why they do what they do. He goes on to explain a diagram he

calls "The Golden Circle," which has three circles all within each other. The outer circle focuses

on "what," the second circle focuses "how," and finally the third most inner circle focuses on the

"why." He then explains that many successful companies understand what they do and how they

do things but very few companies understand why they do things. He argues that if you

understand the why, which is embedded into the center of your business, you will be more

successful. With education transforming due to use of technology integration, it is essential to

understand the why when I work with students, teachers, and administration. Three educational

theories embedded within the Masters of Educational Technology program helped formulate my

foundational philosophy of educational technology integration into classrooms. The first theory

was the SAMR model by Dr. Reuben Puentedura. The SAMR acronym stands for Substitution,

Augmentation, Modification, and Redefinition. This model explains different levels of

technology integration that a teacher can use in classrooms. Along with the SAMR Model, the TPACK theory is also an integral part in educational technology practice. TPACK stands for Technology, Pedagogy, and Content Knowledge. This theory states if teachers need to try and incorporate all three component into a lesson to achieve maximum learning. If one aspect is missing, the learning opportunity is not 100% prevalent. The last foundational principle was Universal Design of Learning. This idea describes how to reduce barriers to learning by re-designing knowledge representation, knowledge expression, and student engagement. The goal of Universal Design of Learning is to destroy barriers and make learning available to everyone. CEP 811 challenged us to use a maker tool to develop a lesson that reduces barriers of learning for a student group. I designed a lesson using a Makey Makey and a chromebook to increase communication and letter recognition for students.

Part of understanding the why is collecting, analyzing and interpreting data that will help drive educational decisions. CEP 812: Applying Edutech to Practice assisted with my understanding and practical application of collecting data to use as a base to lead professional development, discuss device training initiatives, and analyze technology use in our district. Along with having to create a survey that gathered data about technology use meaningful to our district, CEP 812 required the class to report out the data both formally through written composition and an easy to read and decipher infographic. The results were taken to my school administrators and the findings were used to help make informed changes in our training and use of technology. This was as essential part of my learning experience in becoming and instructional technology and data coach for multiple districts because it helped me develop research and theory in order to promote change. I have taken what I have learned in CEP 812

and made it a part of my job on a daily basis. Not only is research important but the ability to

understand how people understand is another important aspect of working with data and

instructional theories. CEP 822: Approaches to Educational Research helped develop alternative

ways to gather research and data. One assignment that challenged traditional research was a

group project that asked the class to research a topic that people feel confident they understand

but there might be misconception within their understanding.   Our group created a website

explaining our research methods, findings, and analysis.   This product supported research and

theory by guiding us through the research process and developing our understanding and

practice of alternative research methods.

Designing effective professional development that teachers implement and apply to their

classroom practice is a component of my job that may seem so small but if done right could be

extremely impactful on student learning and engagement. Delivery and creation of professional

development has changed dramatically over the last ten years. According to Christi L Pace,"The

emergence of online learning venues such as web seminars, thus, combined with greater access

to the Internet, has created previously unimagined possibilities for teacher professional

development" (2015). As demands of the teaching profession increase, online professional

development offers ideas to break down the barrier of common hurdles in professional

development programs such as time, distance, and schedule. Three classes have made an

immediate impact on how I will create and design both virtual and in person professional

development opportunities In CEP 816: Technology, Teaching and Learning Across the

Curriculum, I was introduced to the idea that teaching with technology can improve learning,

however, the way that technology is used in teaching affects how much is learned. Throughout

this course I investigated how cognitive load affects understanding and strategies to use while interacting with digital media. The final project challenged participants to develop an online project that students could use a resource to learn from. I created a flipped classroom website that introduced, explained, and supported flipped classroom implementation. According to Van Merrienboer and Sweller (2010), "The reduction of cognitive load prevents overload and frees up processing resources that can be devoted to genuine learning.". Taking this research into consideration and also applying design principles to both aesthetics and information design, the transfer of information would be easier for the participant. CEP 820: Teaching Students Online focused on ways you can bring online learning to your students. In my case this described fellow teachers and educators engaging in online professional development. Throughout the course the class researched online learning rubrics, read articles discussing the impact of online learning and teaching, and developed our own online learning module. This course impacted my thinking how create the best online professional learning experience for teachers. By challenging myself to develop an online professional development course for educators through an online learning management system, I was able to focus my attention on details and best practices of online learning. CEP 813: Electronic Assessment for teaching was the perfect complement to CEP 820 because it emphasized how assessment needs to be intertwined throughout the learning process. I researched and analyzed multiple forms of assessment in the class. The assessment of learning describes the design and use of summative assessments in class, an assessment that allow for students to analyze their own learning, and assessments that are used for feedback and can support students learning while working on their task.

Working alongside others, utilizing research and theory and designing meaningful professional development are all key components to establishing my position as an intricate piece in the student learning process. As education is transforming into a digital space for learners with less boundaries and more opportunities, my understanding of the transformation would not be possible without Michigan State University's Masters of Educational Technology program. Based on the content of the courses, I have worked towards accomplishing my three main professional goals. The program given me tools and confidence to continue learning and helped me realize that always being in beta affords me the chance embrace and work with change.

References

Denton, C. A., & Hasbrouck, J. (2009). A description of instructional coaching and its relationship to consultation. Journal of Educational Psychological Consultation, 19(2), 150-175. Retrieved from Castleman, Sloane Albright. "Teaching Experience and Teacher Attitudes Towards Instructional Coaching: Implications for Instructional Coaching Initiatives." Order No. 3638874 Walden University, 2014. Ann Arbor: *ProQuest.* Web. 6 Mar. 2016.

Koehler, M. J., & Mishra, P. (2009). What is Technological Pedagogical Content Knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, *9*, 60–70. http://doi.org/10.1016/j.compedu.2010.07.009

 Mishra, P., Dr., Henriksen, D., Dr., & Terry, L. (2013). The Educational Technology Program at Michigan State University. *TechTrends TECHTRENDS TECH TRENDS, 57*(3), 17-19. Retrieved March 6, 2016.

Pace, Christi L., "Re-imagining Professional Development: A Study of Teacher Educators' Integration of a Web Seminar Series as a Component of University-based Teacher Education." Dissertation, Georgia State University, 2015. http://scholarworks.gsu.edu/mse_diss/13

Puentedura, R. R. (2009). As we may teach: Educational technology, from theory into practice. Retrieved from http://www.hippasus.com/rrpweblog/archives/000025.html

Sinek, S. (2009, September 28). Start with why -- how great leaders inspire action | Simon Sinek | TEDxPugetSound. Retrieved March 13, 2016, from https://www.youtube.com/watch?v=u4ZoJKF_VuA

Van Merriënboer, J. J. G., & Sweller, J. (2010), Cognitive load theory in health professional education: Design principles and strategies.
Medical Education,44 (1), 85–93. doi:10.1111/j.1365-2923.2009.03498