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CEP 807
July 19, 2019

Continued Improvement and Authentic Application

While in my undergrad, I would have frequent conversations with a professor about my career endeavors for the future. I would often ask questions about his career path and the choices he made to best prepare himself for his current job. I was impressed with his explanation of continued improvement and how that helped propel him to various career opportunities. His mentorship and guidance challenged me not only as a student in the classroom, but as an active member of a learning community. These conversations sparked a passion for continued improvement in myself and the ambition to experience as many different roles in education as possible. He encouraged me to think beyond what a dream teaching position would be and to accept challenges that would force me to learn new skills and reach my full potential. As a mentor he has helped fuel this “fire” of continued improvement while going through the Master of Arts in Educational Technology ([MAET](#)) program at Michigan State University where I have continued developing as a learner and as an educator. The MAET program has helped me develop new skills that I have brought out in my classroom, collaboration with students and colleagues, and in my future goals.



I first applied for the Master of Arts in Educational Technology (MAET) program at Michigan State University because I have a passion for understanding technology and its future implications in education. After taking the first few courses in the MAET program I began to understand how educational technology is not simply deciding what new technology to incorporate into a classroom, but it is knowing how that technology impacts and enhances learning through the content, teacher knowledge, and pedagogy ([Mishra & Koehler, 2006](#)). This understanding required that I examine what I am teaching and how technology is used in the presentation of the content and the student exploration through that content. In the MAET course [Adapting Innovative Technology in Education](#) I learned how technology can be repurposed to fit a desired job rather than selecting specific technology because of the job. When I was taking this course I was teaching kindergarten. My kindergarten class had access to

a classroom set of iPads, where every student had their own iPad that they could use throughout the day. I would often have the students use their iPads to listen to books or to engage in math apps where students could practice their addition and subtraction facts. This course helped me realize that I could remix or repurpose the technology to fit a vast array of jobs, rather than a select few that I was accustomed too. Instead of having my kindergarten students just listen to books on their iPads I had them create their own books and then record them on their iPads to share with each other and their families.

In the Adapting Innovative Technology in Education course I also explored how the maker movement is being utilized at various skill levels in different learning communities. I am fortunate enough to teach in a school where we engage students in Project Based Learning (PBL) to help them uncover their understanding. The maker movement has close connections to PBL with lessons being more student-centered and driven. I developed an [infographic](#) that describes three different maker spaces and how educators can create their own maker space in their classroom. Learning about maker spaces and the maker movement helped me develop project based learning units that are more student-centered and establish a learning environment where students are learning and teaching each other. Learning about maker spaces and repurposing technology has better prepared me to create authentic learning experiences for my students by connecting with community members and helping them solve real-world problems.

As I have moved through the MAET program I have taken courses that would prepare me for different career opportunities. In my [future goals essay](#) I describe my ambitions to one day teach at the college level and earn a PhD in Educational Technology. One of the courses that I believe have best prepared me to reach this goal is Approaches to Educational Research. While earning my undergraduate degree I had the opportunity to partner with a professor to conduct research about the attitudes of preservice teachers' use of technology in the classroom. Being able to learn how to conduct a research study while in my undergrad prepared me for the rigors of the Approaches to Educational Research course at Michigan State. In this course I had to conduct a meta-analysis of several research studies on goal-orientation theory and how teachers are using it in their classrooms to motivate students. I also learned how to collect and analyze data by creating surveys and coding the results of the survey. When collecting the data from the surveys I used formulas that would indicate if there were any correlations or causations in the data. Taking this course enabled me to better understand how educational research is done and how research drives education policy and pedagogical change. I was able to use the information I learned in the Approaches to Educational Research course to help my students create surveys for a Social Studies PBL where they wanted to learn about the community values and how that might relate to a new monument in the town. The students were excited to learn how survey results can be coded and how to determine if there were any correlations or causations in the data.

Another course in the MAET program that I believe has best prepared me for my future goals is Technology and Leadership. Teachers are writing grants to get technology in their classrooms. Districts are getting bonds passed in order to update the technology that is being used in their

schools. Whole school buildings or grade level groups agree to pilot new technology in their classrooms because they are being provided the opportunity. I believe that leadership at all levels of education needs to take a more critical role in deciding when and how technology is implemented in classrooms. In the Technology and Leadership course I learned about how implementing technology can be extremely difficult if there is not a shared vision between all the stakeholders. Too often, decisions of change are made without getting the perspective of the stakeholders involved and it can lead to miscommunication and stress. Leadership needs to create a shared vision for any change to happen smoothly and effectively. I have learned how to create a Vision Vector, developed by Dr. Nick Sheltroun, to transition a vision into reality. I have learned that any change without a vision will lead to confusion by using Dr. Marry Lippitt's [matrix of change elements](#).

Vision	Skills	Incentives	Resources	Action Plan	=	CHANGE
Vision	Skills	Incentives	Resources	Missing	=	TREADMILL
Vision	Skills	Incentives	Missing	Action Plan	=	FRUSTRATION
Vision	Skills	Missing	Resources	Action Plan	=	RESISTANCE
Vision	Missing	Incentives	Resources	Action Plan	=	ANXIETY
Missing	Skills	Incentives	Resources	Action Plan	=	CONFUSION

Adapted from Knoster, T., 1991 in TASH Conference, Washington D.C., from Enterprise Group, LTD

The Technology and Leadership course built upon the importance of distinguishing between creating a missional vision and instrumental vision. An instrumental vision is creating a vision that is focused on a specific tool or the idea around that tool. A missional vision is creating a vision for the goal or strategy and allowing room for any tool or idea to fit into that goal or strategy. A missional vision aligns itself well to using Dr. Matthew Kohler and Dr. Punya Mishra's Technological Pedagogical and Content Knowledge (TPACK) framework when determining what technology can fit into a particular educational setting. By taking the Technology and Leadership course I am better equipped to help my colleagues create a shared missional vision for the technology we implement into our teaching. I also feel more confident in my abilities to assist my district in having conversations about the future of technology integration. My goal is to work alongside the technology team in our district and teachers at various levels to help them create authentic learning experiences for students that are not necessarily technology-centric, but technology-enabled.

When I began taking courses in the MAET program at Michigan State I was excited to learn how technology has been changing education and what were going to be the new trends in technology integration. Technology is increasingly becoming a bigger influence in everyone's personal and professional lives and that is why I wanted to learn how technology can better engage students and enhance the curriculum that I am teaching. By taking the courses Technology and Leadership, Approaches to Educational Research, and Adapting Innovative Technology in Education I have increased my knowledge of different technologies and pedagogical practices for implementing technology at different grade levels. I have learned new frameworks such as Technological Pedagogical and Content Knowledge (TPACK) (Mishra & Koehler, 2006) and the Substitution, Augmentation, Modification, Redefinition (SMAR) Model (Puentedura, 2006) to help me think about how technology can be integrated in a number of learning environments. Learning about these frameworks in the first courses that I took in the MAET program prepared me to better integrate technology at the kindergarten and first grade level. These frameworks helped shift my thinking of having the students use technology in a passive way, such as watching videos or listening to books, to a more active way where they were creating their own books and sharing their ideas with their classmates and family. This shift in thinking also prepared me for teaching middle school students when they had to decide how they were going to plead their case for a new permanent installation in our community. The students needed to create a 3D representation of their permanent installation for the Mayor, and by using the TPACK framework and SMAR Model I was able to assist my students in using different technologies to convey their ideas. Some of the students used [SketchUp](#) to produce a digital 3D model of their installation, while others used iMovie, Google Slides, or [Piktochart](#) to go along with their physical 3D models of their installations.

The MAET program has not just made me a better educator, but it has increased my passion for remaining a lifelong learner. It has deepened my understanding of technology's impact on education and how creating a missional vision for technology integration is far more effective than creating an instrumental vision. I want to continue evolving my leadership qualities through the information I have learned from the Technology and Leadership course so that I am able to better assist my colleagues and the rest of my district make decisions that are aligned to our shared missional vision when integrating technology in the classroom. The MAET program has prepared me to conduct my own field research as well as analyze research that has already been conducted to identify the best practices for teaching different subjects at varying grade levels. I have conducted a meta-analysis about goal orientation theory as well as conducted field research to determine the best literacy practices to use in helping a student increase their skills in comprehending nonfiction text. As a whole, the knowledge I have gained from all the MAET courses has prepared me to integrate technology in more effective way. The three courses that I focused on in this essay have profoundly changed the way that I think about technology integration and how I view my strengths in leading others to think about technology integration with a missional vision mindset instead of a instrumental vision.

[Synthesis Essay PDF](#)

References

Lippitt, M. (1987). The Managing Complex Change Model. Copyright, 1987, by Dr. Mary Lippitt, Founder and President of Enterprise Management, Ltd.

Mishra, P., & Koehler, M. (2006). [Technological Pedagogical Content Knowledge: A framework for teacher knowledge](#). *The Teachers College Record*, 108(6), 1017-1054.

Puentedura, R. (2006). Transformation, technology, and education [Blog post]. Retrieved from <http://hippasus.com/resources/tte/>.