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EDTECH 592
Reflection Paper

<div align="center">The Transformative Teacher</div>

Introduction

I've learned this valuable lesson during my time in the MET program: although some challenges may be present when integrating educational technology into teaching, the benefits easily outweigh the disadvantages. In one of the very first classes I took in the EdTech program, we were assigned a chapter in our textbook by an author named Roblyer. He described this idea very succinctly when he said, "We need more teachers who understand the role technology plays in society and in education, who are prepared to take advantage of its power, and who recognize its limitations. In an increasingly technological society, we need more teachers who are technology savvy and child centered" (2016, pg. 12). I have come to realize that because the world our children are growing up in is increasingly changing, we, as educators, need to keep up with technology so we can empower our students with the right technology skills, knowledge, and tools.

Simply purchasing devices or proclaiming that technology will now be used in schools will not result in higher test scores or greater student engagement and participation. When used deliberately, however, technology can have a great impact on education. Using technology to prepare students for the future is imperative because students are growing up in a world that requires them to be digitally, informationally, collaboratively, and visually literate. They need to know where to find accurate

information, how to retrieve and interpret it, and how to effectively share that information (Roblyer, 2016). As a current technology teacher, I feel it is my responsibility to transform my teaching to meet the needs of current students. Now, as a graduate candidate of the MET program, I feel better equipped to be this kind of teacher for my students.

Lesson One: Reflections on Learning (430 words)

A surprising thing happened while participating in the M.E.T program. I expected to learn about cutting edge technology tools, emerging instructional theories, and valuable ways to implement technology into my classroom, which I did. But to my surprise, I also learned valuable lessons that weren't technology related. By assuming the role of student, I gained insight into what it takes to be an effective teacher who creates a positive learning environment for students. Being a student has reminded me that teacher qualities such as patience and approachability are appreciated, clearly stated intended learning outcomes improve student achievement, students respond well to encouragement, and peer feedback is valuable.

In a study conducted in 2001, 2nd-year medical students were asked what qualities an ideal educator possesses. Communication was the highest ranking characteristic, while "personal qualities, such as being approachable, helpful and friendly, were more highly regarded than technical issues such as being punctual and having organized lectures" (Mclean, 2001, pg. 237). These results show that the teacher-learner relationship is highly valued by students. As a student at BSU, I entered

the program wanting to succeed. I read the syllabi, kept up to date on instructor announcements, and visited the Q&A site frequently. However, there were times when my human moments prevented me from performing at my best. At times, I didn't understand what was really expected of me, found myself in the middle of a busy week, lacked motivation, or occasionally, I got sick. It was during these moments that I really appreciated teachers who were able to maintain high standards and, at the same time, offer flexibility. As a teacher, I set high expectations for my students. I anticipate that they will perform well and usually they do. For those times when they fall short, however, I now listen to understand and then offer grace if the situation merits it.

Clearly stated intended learning outcomes (ILOs) improve student achievement. I experienced this first-hand as a student in the MET program. Each of my instructors provided a detailed syllabus at the beginning of the course complete with points, dates, expectations for each assignment, and a table aligning every assignment to an AECT indicator. My experience as an online student coincides with the results of a study on how integrated ILOs have a positive effect on students. The data shows that, "all learning paths were statistically significantly higher with structured ILOs" (Tangworakitthaworn, 2015, p. 393). Because I am an elementary teacher, I provide my ILOs in simple "I can" statements, such as, "I can upload a jpg file to the Google Classroom." Just as I performed well as a student when ILOs were presented at the beginning of each semester and assignment, my students benefit from reading the ILOs before the lesson so they have a clear vision of the direction we're headed. At the end

of each lesson, students reread the learning target in order to solidify the concept they learned or, if necessary, to determine they still have more to learn.

Students respond well to encouragement. As a student at BSU, I

Lesson Two: The Art & Science of Teaching

During my time as a student at Boise State University, I have gained insight into the art and science of teaching, specifically how it can be greatly enhanced with the mindful implementation of technology. The way students learn is being redefined. This is, in large part, due to the increase of technology use in our society. Over the last 30 years, "technology has reorganized how we live, how we communicate, and how we learn" (Siemens, 2004, p. 1). As students' needs change, our instructional style must also adapt. I teach at a charter school where instruction is still heavily founded in the behaviorist approach. If you walk into a classroom at my school you will see students seated in rows in the attentive listening position (hands on top of desks, voices off, and eyes on the instructor.) You might also see the students reciting their class poem, a Shirley or math jingle, or another bit of information from memory, in unison. All of the instruction that occurs is rote. It comes from the instructor imparting knowledge to the student and the students responding with memorized answers.

I have always felt a little uncertain about this instructional style. I was continually weighing the options in my mind, trying to decide whether I agreed or disagreed. On one hand, the students' standardized test scores at our school are among the highest in the region. These data points lead me to believe that the way we are educating our

students is effective. On the other hand, I wonder how much the students are actually learning. How much are they retaining? How well are we preparing them for the 21st century workforce and way of being? Are we teaching them to solve problems, to create solutions, to identify credible sources of information and to collaborate? If we continue to focus solely on the tenets of the behaviorist theory, I don't believe we are teaching them all of these crucial skills. I think a combination of the behaviorist and constructivist theories would be a more powerful approach and they both have their place in the classroom.

The constructivist theory states that we create meaning from experience and that a learner's construction of understanding depends on their interaction with new knowledge. During my study of constructivism, I found a textbook that teaches social studies through a constructivist approach, and this was explained by Sunal and Haas (2002), "The textbook is designed to help teachers facilitate students' development into problem-solvers and decision-makers who take an active role as citizens of their world" (p. 1). This is exactly what I want to teach my students in my technology classroom. I already place a heavy emphasis on problem solving because working with technology requires those skills. Now I am implementing more problem solving into my lessons from a content perspective instead of just when dealing with the hardware and software. I create more project-based learning assignments for my students. The structure of my class is starting to shift from the direct instruction method (I do, we do, you do) to allowing students the opportunity of hands-on, exploratory learning.

Lesson Three: The Design and Evaluation of Instruction

Designing instruction has been laced throughout the entire curriculum of the EdTech program, but the heaviest emphasis for me was encountered during EdTech 541 and 503. In 541, we created many different types of lessons including: mobile learning, interactive spreadsheets, docs and presentations; internet enriched, instructional software, game-based learning, social media and cross-content lessons. Not only was I introduced to new technology, I learned to be more creative with my instructional design. I found that many of the lessons and concepts I created or learned about as a result of that class could be implemented with my students immediately.

I learned general design principles in EdTech 503 which provided a more theoretical approach to designing instruction. Looking at the big picture of instructional design that was required for the final ID project helped me see my role as an educator from a different angle. In the past, my norm when preparing a lesson was to determine the skill I wanted students to learn (Intended Learning Outcome), write out a step-by-step process for completing the task and use that to determine what tools I needed to have students complete the project. Then I would write the ILO on the board. I never formally included learners' needs in my lesson planning.

When completing the Instructional Design project, however, there were multiple steps to complete before I even started planning how I would teach the students what I intended them to learn. When creating this project, we were first asked to complete a needs assessment survey and compile the data, then the learners, learning context and performance context had to be analyzed. Next, I provided rationale for the project,

explaining what needs it would meet. Then, the objectives were identified in great detail followed by an explanation of what type of assessment would be used for each objective. Finally, after all of that groundwork had been laid, I could start writing the instructor guide. Now I realize that a process this in-depth can't be completed for every lesson I create, but I can certainly keep in mind the principles used to design this unit and implement it with my larger instructional units, or on a small scale as I plan daily lessons.

The importance of evaluation was emphasized near the end of the ID project. Effective evaluation should start at the beginning of the project and continue even after the project is complete. A successful instructional designer will be open to and aware of how to use the evaluative process to improve design. One way to do this is through the learner reaction. During this part of the evaluation, learners participated in an attitude questionnaire to "measure their reaction and satisfaction with the learning experience." It is important to evaluate learners because if they have a positive reaction to the instruction and the learning experience, learning will be greatly enhanced (Larson and Lockee, 2014).

EdTech 505 provided even more insight into evaluation. I developed as an educator even though we were asked to completely remove ourselves from this role while we conducted the evaluation. But once again, seeing the big picture and considering variables outside of my usual scope as a teacher helped me define my role.

Lesson Four: Networking and Collaboration

Networking is an important concept in any industry, but with the constant professional and social changes, as well as the rapid development of technology, teachers are required to continuously develop skills and keep their knowledge up to date. Wenger, Trayner, and De Laat's explain learning networks this way, "Learning networks are perceived as online and offline spaces in which participants connect ideas, share problems and insights in a constructive way, and connect with familiar concepts, using new knowledge that is collaboratively constructed through dialogues and social interactions" (2011). I like this definition because it helps me understand what learning networks can look like, why they are important, and how they should operate.

Living in a society that is so heavily based in technology, it's obvious that networking is different than it was 20 years ago. Instead of requiring face to face interaction, networking has taken a digital form as well. This diversity of learning networks was described by Beemt, Ketelaar, Diepstraten, and Laat's when they said, "Because of technological and societal developments, networks can become flexible, borderless and innovative" (2018). I have developed both types of networking circles. I have a very small network of people whom I know personally and interact with face to face. I teach at a school that employs two technology teachers, myself, and another teacher for the lower elementary grades. My cohort and I work closely together as we exchange lesson plans and ideas. There is also another technology teacher at the middle/high school in our district. He is available to answer questions, but we don't collaborate on a regular basis. Those two individuals comprise my technology teaching network.

Fortunately, there are other opportunities for me to build a digital network where I can interact with people outside of my school. Some of them share similar experiences, interests and skills as I do, and some of them are in an unrelated career field. As I studied at Boise State University, I connected with both students and instructors who I reached out to then and would feel comfortable doing so in the future. For example, a dialogue started between a peer and I during an MET class several years ago. She had been teaching middle school technology classes for some time and had a wide base of lesson plans she was willing to share with me. During EDTECH 504 a classmate and I co-authored our synthesis paper. It was valuable to have someone to brainstorm with, receive suggestions from, and offer advice to. In another class I worked in a small group to complete a presentation and lead a class discussion. Experiences like these are common during my time in the MET program because it was designed in a way to encourage collaboration and feedback among peers.

Networking isn't vital among teachers only, students should have the opportunity to interact with others as well. Learning networks are at the heart of learning for students and their value should not be underestimated (Harding and Engelbrecht, 2015). Although learning networks among students pop up spontaneously, I have tried to create opportunities for students to network with their peers in a structured format.Through the use of a blogging site called Edublog, students write and publish their own blog posts. Because posts are visible to all the 6th grade students at the school, they can read and comment on each other's work. I give them a framework for their responses where they offer encouragement as well as suggestions for

improvement. I also use Google Classroom (GC) with my students. They can create and post assignments to the CG stream. Students have engaged in discussion on the GC stream as well.

Lesson Five: The Research-Practice Connection

One of the most obvious connections to my education and research is the content of the EDTECH 504 course, specifically the assignment to write a synthesis paper on a learning theory of our choice. A colleague and I chose to write about the theory of connectivism. In addition to exploring three foundational learning theories, we sought to determine whether our digital world merits the use of new learning theories, such as connectivism. According to Siemens, over the last 30 years "technology has reorganized how we live, how we communicate, and how we learn" (2004, p. 1). As a result of the research we conducted, I feel we do need educational reform and it can start in my classroom. I now view my students as 21st-century learners who I have the opportunity to influence through the use of collaborative learning theories and digital tools.

It makes sense to use some of these newly created theories in our digital world. According to the connectivist approach, learning occurs when a student connects to a learning community and participates in the process of sharing and gleaning knowledge through various networks (Kop & Hill, 2008, pg. 2). It is now easier than ever to allow students opportunities to connect with other students. I have included more discovery, collaboration, and networking in my classes. My instruction has changed to include the

use of a greater diversity of Web 2.0 tools, including blogging sites, Google Classroom as the primary learning management system for all of my classes, educational Youtube videos, my own original, content-specific websites, student-created websites, self-created tutorial videos, interactive presentations, and collaborative docs, sheets, forms, and slides.

Another school of thought worth implementing in the classroom is the growth mindset, "the belief that intelligence is not fixed and can be developed" (Claro, Paunesku and Dweck, 2016). Students' view of their abilities and intelligence influences their motivation and achievement (Haimowitz and Dweck, 2017). In six studies conducted by Mueller and Dweck, "praise for intelligence had more negative consequences for students' achievement motivation than praise for effort" (1998). Results of these studies show that the fixed mindset may be inadvertently encouraged when parents and teachers praise students for their success (1998). Growth mindset is something my school is in the process of cultivating among teachers and students. In addition to reading a book on growth mindset, staff members encourage students to compare their performance with their previous performance instead of another student's scores. We try to use language that focuses on the process, such as, "If you don't understand this math concept today, you'll get it tomorrow." I even have my students participate in Khan Academy's growth mindset unit each year, reminding them that intelligence is not set, but can be developed.

Closing Thoughts

When I compare myself from the teacher I was eight years ago to the teacher I am now, the difference is astounding. I also notice a BIG difference in the curriculum I was using then and what I've been able to build up to now. I was floundering, to be honest. I would survive day to day. I purchased a "curriculum" that arrived in a binder and served as my foundation for lessons I threw together daily, and sometimes hourly. Slowly, I began to build the curriculum. I created an overview of the major concepts I wanted to teach in a year and then broke it down into semesters. I found bloggers I liked and learned a few tricks now and then as I followed their posts. Occasionally I would email a teacher who had posted a lesson online and they'd graciously share their lesson plan with me. Then, I was introduced to the MET program at Boise State. When I enrolled in classes, my learning and teaching exploded. If I had been traveling at a snail's pace before, I was suddenly sprinting in my progress as a technology teacher. I was delighted to take concepts I was learning in my BSU classes and immediately implement them in my own classroom.

The skills I've learned and the insight I've gained in the MET program have redefined who I am as an instructor. I have developed into a teacher who helps students learn through discovery, sit in the struggle, apply problem-solving skills in their learning and collaborate on projects. I feel like I can step back and look at the whole picture, both where we've come from and where we are going as a society, and understand how my students fit into that big picture. I have a well rounded understanding of the skills I need to teach the students who live in a digital world so they will be prepared to thrive.

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