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EDTECH 592
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STANDARD 1 - CONTENT KNOWLEDGE

Candidates demonstrate the knowledge necessary to create, use, assess, and manage theoretical and practical applications of educational technologies and processes.

1.1 Creating: Candidates demonstrate the ability to create instructional materials and learning environments using a variety of systems approaches.

In EdTech 541, I created an Interactive Presentation to teach 4th grade students about the symbols of Idaho, which is part of their 4th grade curriculum. The activity begins with a quiz of logos and symbols that most students encounter everyday. Then the "logos," or symbols, of Idaho are introduced. After some interactive instruction through the use of a compilation of web resources including videos, instructional games and quizzes, students are taught the symbols of Idaho. This project demonstrates my ability to create an instructional activity that maximizes the use of technology in education. I applied the skills I learned by creating this project and then teaching my students this same skill. In my current technology classes, my 6th grade students now create interactive presentations for our 2nd grade students. In this way, I am creating a rich learning environment for my students.

1.2 Using: Candidates demonstrate the ability to select and use technological resources and processes to support student learning and to enhance their pedagogy.

With the enormous amount of technology available to us, finding and selecting the right online resources requires skill and practice. I was able to enhance my use of this skill during the M.E.T program, but especially in EdTech 541. One specific project, Game-Based Learning, demonstrates my ability to identify high quality, useful resources. Using learning games fabricated by iCivics, I created a lesson plan to teach 4th grade students the differences of each branch of government, as well as the roles each branch plays. One of the games provided on the website simulates running a law firm and requires students to understand each article in the Bill of Rights. With this knowledge, students interact with clients and lawyers to determine if a clients rights are being violated. Game based learning supports knowledge transfer by solidifying the concepts they will have already learned in their history class. By immersing students in simulations of real-life scenarios, the use of technology is being optimized and learning is proven to occur at higher rates.

1.3 Assessing/Evaluating: Candidates demonstrate the ability to assess and evaluate the effective integration of appropriate technologies and instructional materials.

I completed a Program Evaluation of iPad implementation in our school for my EdTech 505 final project. Because the funding is often more limited in education than in the business sector, it is important to ensure programs are being implemented effectively in order to maximize spending. The evaluation process helped me understand how important it is to determine the effectiveness of a program, as well as develop skills to do so. Through the evaluation process, I discovered that a majority of teachers who use Google Classroom, a digital Learning Management System (LMS), find it easier to provide specific feedback to their students, track due dates and student progress, and share information with their students. Students have the opportunity to connect with teachers and with other students. I will continue to use the evaluation process to determine the value and impact of programs being used at our school.

In EdTech 541, I created a Relative Advantage Chart which identifies problems or learning obstacles that may occur in the classroom. Then, I found a technology tool that would address each of those learning obstacles. I also had the opportunity to explore the advantages and outcomes that would result from using a given technology tool. Completing this assignment helped me develop skills to assess different types of tools to determine the added value to my classroom. Because there are so many tools available, it's imperative to understand how to assess their effectiveness when choosing to implement technology my classroom.

1.4 Managing: Candidates demonstrate the ability to effectively manage people, processes, physical infrastructures, and financial resources to achieve predetermined goals.

Money, time and space are a rare commodity in the public education system. Many educators and administrators are maxed out on time, and districts fall short of having enough money to support all desired programs. Having the skills to manage each of these components is an asset in education. In EdTech 505, we were given the opportunity to develop management skills. As I completed a Program Evaluation, I was introduced to an imperative, yet often overlooked, aspect in education: evaluation. For my project, I chose to evaluate Google Classroom implementation in grades 4-6 at our elementary school. Most teachers were using Google Classroom as an LMS for the first time and there were varying levels of comfort and skill in regards to technology. The purpose of performing this evaluation was to determine how successfully Google Classroom was being implemented. Secondary objectives were to see if teachers and students were benefiting from its use. The results of the evaluation showed that Google Classroom is being used on a regular basis by most of the teachers, but to varying degrees. Teachers would benefit from formal training on how to use Google Classroom to its full potential.

Although this was a fictitious scenario, the Response to the RFP assignment introduced me to the process of evaluating the effectiveness of a program, specifically the cost and workload that would be required to evaluate the program. It also gave me an indication of what is required when managing a large project like this one including the people, processes and financial resources.

1.5 Ethics: Candidates demonstrate the contemporary professional ethics of the field as defined and developed by the Association for Educational Communications and Technology.

Teaching students the ethics of internet use is a large part of my job as a technology teacher, and a responsibility we shouldn't take lightly with our students. By creating the Netiquette project, I have a resource to use with my students to teach them about all aspects of proper use of the internet. Many kids today have access to the internet and it is often unsupervised. Kids know how to use technology, but do they know how to use it appropriately? A healthy Digital Citizenship curriculum should include discussions about digital footprint, being kind when interacting online, avoiding cyber bullying, standing up for someone who is being bullied, protecting themselves by keeping private information private, creating strong passwords, and being honest with themselves and others. Healthy digital citizens will create a healthy online community.

Another demonstration of mastery of standard 1.5 is my Assistive Technologies project created in EdTech 541. Everyone should be given an equal opportunity to participate in education. The list of technology tools referenced on this page can aid students with cognitive disabilities, sensory difficulties, physical impairments, at-risk tendencies, as well as those who are gifted and talented. Creating an environment where each student has the best chance to succeed as a learner is an excellent teaching practice. It is also a federal requirement.

STANDARD 2 - CONTENT PEDAGOGY

Candidates develop as reflective practitioners able to demonstrate effective implementation of educational technologies and processes based on contemporary content and pedagogy.

2.1 Creating: Candidates apply content pedagogy to create appropriate applications of processes and technologies to improve learning and performance outcomes.

The Interactive Spreadsheet lesson is one example of my ability to improve learning for my students. I used the principles we learned in EdTech 541 to involve the students in learning by interacting with media rather than just being exposed to information, and that is how people learn best. By creating a lesson that is interactive in nature, I am giving the students an opportunity to enhance their understanding and retention of the concepts. The lesson is also collaborative, so students are developing skills to work together. They may also realize that when they combine efforts, they can create a finished product with more depth than they could create on their own.

The Jigsaw Activity is a compilation of outstanding websites that teach 4th grade students important facts about the Oregon Trail. The information encompasses four categories: hardships, the trail, landmarks and the covered wagon. Because this activity requires students to work in groups, student performance will be enhanced as students collaborate to include the best knowledge and information they can agree on. By teaching students to work well with

others we are not only improving outcomes, we are preparing students to perform at a level that will make them competitive with their collegiate peers.

2.2 Using: Candidates implement appropriate educational technologies and processes based on appropriate content pedagogy.

I learned about project based learning (PBL) during my studies in EdTech 542. I produced a project called "Where in the World" designed to teach 4th-6th grade students a plethora of skills including: how to use a visual organizer, math calculations, how to use formatting and formula functions in a spreadsheet, internet search skills, estimation skills, proper writing conventions, use of Google tools (Docs, Sheets, and Forms). Incorporating PBL in the classroom prepares students for life. The traditional method of teaching, direct instruction, is not always effective because students aren't involved and engaged at a deeper level. The benefits of this type of instruction allow students to ask questions, make a connection between what they are learning with what they already know, and to place what is already common knowledge to students at the front of their minds. These same skills are used by adults in real life everyday. Project Based Learning incorporates the natural tendencies children have to ask questions and share with others how they relate the new knowledge with previous knowledge.

Another example of appropriate content pedagogy is a project I created in EdTech 502 a Virtual Field Trip. This was created for 2nd grade students. As students visit different internet sites they learn facts about the oceans.These facts consist of ocean names, where they are located, and the different animals and creatures that live the oceans. The Great Barrier Reef is also a topic of study for this 2nd grade unit, so I created links to information about this area as well. I considered the developmental level of students while creating this activity for them.

2.3 Assessing/Evaluating: Candidates demonstrate an inquiry process that assesses the adequacy of learning and evaluates the instruction and implementation of educational technologies and processes grounded in reflective practice.

In order to complete my Instructional Design project in EdTech 503, it was necessary to conduct a Needs Assessment Survey. This survey, made up of 15-20 questions, was administered to potential learners to determine what they already know and what they need to know, specifically in relation to the skills that the teacher intends to teach. Questions to help pinpoint the unique characteristics of learners were also included in the survey. Because the lesson was designed to teach the basics of Google Classroom, questions regarding students attitude toward and experience with technology were added, and students were also questioned about frequency of computer use. Reviewing the results of this assessment before beginning to teach allows the teacher to direct learning in a way most effective and efficient for students. The teacher would also be able to group students for mini lessons to teach concepts that were unfamiliar or avoid topics that all students had already mastered. Assessment is a valuable practice that can be used both before and after instruction to improve pedagogy.

For the School Evaluation project in EdTech 501, I evaluated the health of technology implementation at Skyline School using the Maturity Model and it's five benchmarks: administrative filter, curricular filter, support filter, connectivity filter and innovation filter. While conducting this evaluation I learned to view technology implementation in greater depth and from different angles. Having to consider each of the filters taught me to think about the many details required to create a healthy technology centered school, including: infrastructure, hardware, software, training, policies, and financing. All of these are required to keep a school running smoothly and safely in regards to technology use. I now have a greater skillset to assess the efficacy of technology use in detail rather than expressing a general opinion.

2.4 Managing: Candidates manage appropriate technological processes and resources to provide supportive learning communities, create flexible and diverse learning environments, and develop and demonstrate appropriate content pedagogy.

The Instructional Design Project, completed in EdTech 503, was used to teach 5th grade students how to join Google Classroom (GC), complete a digital citizenship lesson and turn the finished products from that lesson into the GC. Learning Management Systems (LMSs) are a common format for teachers to host their classroom online. The use of an LMS provides an efficient way for teachers to post, collect and grade assignments and for students to communicate, track and turn in assignments. The effective use of a tool like Google Classroom supports student learning and diversifies the learning environment.

As part of the ID Project, I performed the Needs Assessment Survey which consists of 20 questions. This survey was given to students to determine their view of self, computer skills, personal learning habits, preferences, and their knowledge about Google Classroom. The process of assessing students before instructing them is an important step in providing supportive learning communities. As students needs are identified before instruction begins, instructors are able to be flexible and diversify instruction. The results of the survey were also used to create supportive environments for students. Students attitude toward technology, their prior knowledge of the concepts they will learn, and their desire to learn are important data points to be considered by an effective instructor.

2.5 Ethics: Candidates design and select media, technology, and processes that emphasize the diversity of our society as a multicultural community.

The digital inequality assignment alerted me to the fact that not every student has an equal opportunity for digital learning. After conducting research on the topic of digital inequality, I created this Digital Divide presentation. Learning about the existence and severity of the digital divide and digital inequality at my school was an educational experience for me. I learned that there is need for improvement. In the Digital Divide presentation, I identify the strengths and weaknesses that exist in the school where I teach. I also included suggestions for improvement. Understanding the discrepancies that exist among my students helps me be conscientious about providing equal opportunities for all students.

The Robotics Webquest demonstrates a diversity issue that we are not currently dealing with, but that may have both positive and negative effects on how we live our lives in the future. Although robots have been in existence for years, the recent creation of human-like robots is at the forefront of developing technology. This WebQuest was designed to get students thinking about the prominence and integration of robots into our society and to engage students in higher order thinking. By presenting students with a potential real-life situation, they will be encouraged to create, analyze, and evaluate how robots could affect our society. Technology has an ever-increasing presence, and people have access to more information than ever before in history. The movement toward robots performing human jobs is one worth anticipating and investigating as it may one day impact our culture.

STANDARD 3 - LEARNING ENVIRONMENTS

Candidates facilitate learning by creating, using, evaluating, and managing effective learning environments.

3.1 Creating: Candidates create instructional design products based on learning principles and research-based best practices.

I created a Mobile Learning lesson plan in EdTech 502 and it is focused on the third grade science curriculum: the life cycle and anatomy of a plant. The lesson consists of three phases. Phase 1 directs students to informational websites and videos using QR Codes. In phase 2, students use iPads to capture images of each part of the plant. During phase 3 students compile a presentation using their images of plants. Lasting learning occurs when students learn in authentic environments and native settings. In this activity, students get the opportunity to apply concepts in the real world. First, they are shown pictures of videos of the parts of a plant. Then when students are given the opportunity to apply their learning by identifying and capturing images of live plants, their learning is extended and solidified.

In EDTECH 597 I created a Maker Portfolio to showcase the coding projects I created using a block coding site called Scratch. I decided to apply these principles to the coding elective I teach and create a maker environment. I built on what our school's philosophy has in common with one of three key aspects of a creating a successful maker philosophy: the maker mindset. (Martin, 2015, p. 31). The attributes of being growth-oriented and failure positive resonate with me and the growth mindset we cultivate at our school. At Compass, you can hear teachers saying things like, "If you don't get it today, you'll get it tomorrow. If you don't get it tomorrow, you'll get it next week." Because this philosophy is already supported by our administration, it was a great segue into the maker mindset in my classroom. The students encounter failure frequently in a positive environment as they build robots, design Makey-Makey projects, and learn coding concepts.

3.2 Using: Candidates make professionally sound decisions in selecting appropriate processes and resources to provide optimal conditions for learning based on principles, theories, and effective practices.

In EdTech 504 I was given the opportunity to critique peer-reviewed articles discussing the use of traditional learning theories in our digital world. Then, I wrote an Annotated Bibliography summarizing and critiquing each article and its application to learning today. During my review of these publications, I discovered that Educational Technology is an emerging field that has been based largely upon traditional educational theories. Recently, some within the field of Educational Technology are writing about the effect it is having on the redefinition of learning. Because technology is changing the way kids learn, we should consider placing less emphasis on past theories about education and apply the more recently developed and emerging theories. I now feel that traditional learning theories, while useful, are not applicable to the 21st century learner. If we continue to teach our students using methods that were effective in a different era, we will be doing them a disservice.

3.3 Assessing/Evaluating: Candidates use multiple assessment strategies to collect data for informing decisions to improve instructional practice, learner outcomes, and the learning environment.

The Final Evaluation Report demonstrates my use of assessment strategies. The whole report was one grand assessment. This was an opportunity for me to take an in-depth look at a system we have implemented in our school, the use of Google Classroom as our upper elementary LMS. This lengthy process taught me to review and investigate all aspects of a program. Once the evaluation is complete, recommendations are made. In the case of this evaluation, I recommended that the school continue to use Google Classroom, but that it would be beneficial to teachers if better infrastructure is provided (some places on campus had spotty to no wifi) and more effective staff training. If administrative teams sincerely want to improve their programs, they can use the results and recommendations. Possessing the skill to assess the success of a program is valuable.

3.4 Managing: Candidates establish mechanisms for maintaining the technology infrastructure to improve learning and performance.

The School Evaluation completed in EdTech 501 shows my ability to analyze the infrastructure of a schoolwide system based on the Maturity Model. Learning to use this specific model taught me what to look for when considering how well we are implementing technology at our school. Utilizing this mechanism, I was taught to consider details I had previously overlooked and to ask questions I previously hadn't asked. Questions such as:

- How much time is spent in formal training for our teachers?
- What is the stakeholder involvement in the development of our technology initiatives and decisions?
- Is formal technical assistance provided through staff release time or hired help?
- What types of technology do we use in our communication systems?

I learned to use the administrative, curricular, support, connectivity and innovation filters as I assessed and identified the areas of strength and weakness. This evaluation is key in the continuance of the system as a whole.

3.5 Ethics: Candidates foster a learning environment in which ethics guide practice that promotes health, safety, best practice, and respect for copyright, Fair Use, and appropriate open access to resources.

Plagiarism is one of the most prevalent problems among kids and teens, especially in the digital world. In a digital setting, it is extremely easy for someone to copy and paste text and images so it is important for schools to teach students the ethics of the digital world. In EdTech 502, I created the Copyright Scavenger Hunt to help students understand what copyright is, how it can be used to their advantage to help protect their original creations, and how they can avoid breaking copyright laws. The scavenger hunt takes students to different websites that contain important information regarding copyright, fair use laws, public domain and attribution. Students use the provided web resources to complete the worksheet provided and demonstrate their understanding of these concepts. An answer key is also provided for students to check their understanding.

3.6 Diversity of Learners: Candidates foster a learning community that empowers learners with diverse backgrounds, characteristics, and abilities.

In EdTech 541, I created the Assistive Technology document, which provides a description of ways to include all students in learning, especially those with disabilities. There is also link to each of the tools. Assistive technology can be used to enhance learning with a variety of special needs students. Students who possess basic or no reading abilities can benefit from text to speech and dictation aids which gives them an easier option to experience digital text, whether on a website, in a document or in an eTextbook. Dictation software makes it possible for an emerging writer to compose written assignments. Ability switches are designed for people with physical disabilities, offering them an alternative means to interact with the computer. Switch Control uses a commonly referred to system called “Scanning” to allow access to on screen menus, keyboards and the Dock. One way to include students with hearing loss is by using subtitles. Many sites have this option available and it simply needs to be enabled. I learned that there are an extensive amount of resources available to provide a learning community that empowers learners with diverse abilities.

STANDARD 4 - PROFESSIONAL KNOWLEDGE AND SKILLS

Candidates design, develop, implement, and evaluate technology-rich learning environments within a supportive community of practice.

4.1 Collaborative Practice: Candidates collaborate with their peers and subject matter experts to analyze learners, develop and design instruction, and evaluate its impact on learners.

My work with a classmate to complete our Synthesis Paper for EdTech 504 indicates mastery of indicator 4.1: Collaborative Practice. We wrote this paper to demonstrate our understanding of learning theories. Understanding how students learn more effectively qualifies

me to make sound decisions in the classroom regarding instruction and curriculum design. A knowledge of how students learn is critical. Through the study of different learning theories, some antiquated and some new, it is apparent that traditional learning theories do not fit the new type of learner that is emerging in today's digital world. Through our research, we determined that we need to teach our students new skills, including how to synthesize information, make connections and find patterns with the information acquired through the use of new technologies.

Collaboration is necessary in educational technology. Trying to keep up with the ever-changing landscape of technology on your own is overwhelming. Forming a network of qualified colleagues and experts is essential. I had the opportunity to collaborate with a Subject Matter Expert (SME) while creating my Instructional Design project teaching students how to use Google Classroom. I included sections on how to join the Classroom, how to create an assignment in the Google Drive, and how to turn an assignment into the Google Classroom. The suggestions of my SME made my project more detailed as I added a time frame to each instructional piece and examples of working Google Classrooms. This is one example of the value collaboration adds to my work.

4.2 Leadership: Candidates lead their peers in designing and implementing technology-supported learning.

In EdTech 501, I learned about a tool that has allowed me to stay connected with the ever-changing world of technology, a task that can be overwhelming. I was so impressed that I created an RSS tutorial to teach my colleagues how to use RSS aggregators so they could add it to their toolbox of 21st century learning. RSS makes it so that updates are automatically sent to the user, instead of visiting all of their favorite sites or blogs and checking for new information. In this tutorial I focused specifically on the Feedly aggregator. The tutorial includes instructions for where Feedly can be found, how to set up a new account, how to subscribe to feeds and sort them by topic.

The Final Evaluation Report I composed in EdTech 505 discusses the evaluation results of the use of Google Classroom as the primary LMS at a charter school. Fourth-sixth grade students and their teachers are using are using Google Classroom. At the time the evaluation was performed, the program had been underway for 3 months. The purpose of the report is to show whether the objectives of the use of Google Classroom were met. The evaluation was also performed to provide data to determine the current effectiveness of the program, the direction of the program and to guide decisions about its implementation in the future. When the report was complete, I shared these valuable results with the administrative team, as well as the teachers who participated in the survey. The results of the evaluation show that the objectives are being met overall, but that improvements within the program could be made. This information is valuable and could be shared in depth at a PLC or staff training meeting to enhance Google Classroom use and performance.

4.3 Reflection on Practice: Candidates analyze and interpret data and artifacts and reflect on the effectiveness of the design, development and implementation of technology-supported instruction and learning to enhance their professional growth.

At the end of EdTech 504, we were asked to write a Reflective Journal and record the major lessons we had learned in the course. I learned three important lessons. First, traditional learning theory has its place in educational technology. Second, our digital world is changing the way we teach and learn, creating a need for modern learning theories. Third, some modern theories have been created and are being explored by educators and other professionals. I experienced professional growth as a result of that course. I gained the skills to improve my ability to guide learning in my classroom. Through the research I conducted for projects in this class, I learned to identify valid sources of literature and synthesize large amounts of information. I also possess stronger inquiry skills.

In EdTech 542 I created a project based learning activity that was intended for use with older elementary students. I incorporated this Student Self and Peer Assessment. Realizing the importance of reflection in my own practice, I teach my students these skills since they will use them throughout their lives. The process of reflection encourages students to consider how their actions affect the performance as the group as a whole. If problems arise within groups, students will receive support from me as their teacher as they practice learning to collaborate with their peers in a safe environment.

4.4 Assessing/Evaluating: Candidates design and implement assessment and evaluation plans that align with learning goals and instructional activities.

For the Response to RFP (Request for Proposal) project, I was asked to create an artificial company and submit a response to a mock request. The owners wanted information about the effectiveness of their program, "*Determining Instructional Purposes*." They needed to know whether and to what extent they should expend resources marketing their educational program. Although this was an exercise with made up components, it was valuable for me to go through the process of evaluating a program and consider all aspects involved, not just instructional like I'm used to. Considering the qualifications of people involved, timelines, job duties, and financing gave me a better idea of the broader scope of such programs. Although the goals of our educational programs are always instructional, other the process of evaluating also needs to be considered.

4.5 Ethics: Candidates demonstrate ethical behavior within the applicable cultural context during all aspects of their work and with respect for the diversity of learners in each setting.

The Digital Divide presentation I created defines the terms digital divide and digital inequality. I also take a closer look at the digital inequality that exists at the school where I teach. Based on survey results, I discovered that the inequality that exists is based on three factors: teacher ability or perceived ability, confidence among students, and limited web 2.0

student produced material. My suggestions to overcome digital inequality at our school are: to provide consistent training for teachers, implement self-directed learning, and have students become digital producers by creating digital portfolios, coding apps, and creating websites. Completing this assignment puts me in a position to suggest and implement ways to provide equal opportunities for a variety of learners.

I developed this Netiquette webpage to teach students how to be leaders in digital citizenship. In addition to defining netiquette as having good manners when interacting with others online, I outline principles to help students make wise choices when using the internet. In addition to helping kids be kind, the concepts contained on this webpage are designed to help them be safe and aware of the digital trail they leave behind themselves wherever they go. Another objective is to encourage students to help create online learning communities where others feel safe. When students understand the ethical and cultural components of online communities, they are better able to act respectfully within those settings.

STANDARD 5 - RESEARCH

Candidates explore, evaluate, synthesize, and apply methods of inquiry to enhance learning and improve performance.

5.1 Theoretical Foundations: Candidates demonstrate foundational knowledge of the contribution of research to the past and current theory of educational communications and technology.

My Synthesis Paper demonstrates my understanding of the learning theories upon which teaching and learning are founded. Educational Technology is an emerging field that was initially based upon traditional learning theories. Recently, however, many within the field of educational technology are studying the effect technology has on the redefinition of learning. Due to the nature of technology and the great impact it has had on education, teachers are being summoned to re-examine past theories about learning. In some cases, scholars are calling for the use of traditional theories to change, or for new theories to be developed. This paper required a great deal of study and research and my views on learning theories evolved through this research process. My colleague and I explored the definition of connectivism and revealed why the development of this concept is pertinent to education today.

The Annotated Bibliography I wrote in EdTech 501 was my first major exposure to the idea that technology use, both in and out of schools, is changing the way we teach and learn. I read article after peer-reviewed article stating that the authors believe instead of fitting technology into traditional learning theories, or finding technology that supports a specific traditional learning theory, educators should consider the new theories and roles of education that are being created because of technology. Technology is redefining learning, therefore, we need to create or redefine educational theories of technology. There was also a heavy emphasis on administrators, technology coordinators and teachers to educate themselves and

create new ways to use technology in order for technology implementation to be effective in schools. This class was the catalyst for change in how I use technology to teach.

5.2 Method: Candidates apply research methodologies to solve problems and enhance practice.

This paper, Theories of EdTech, was written while I was still going through the EdTech program. In it, I write that I would like to implement new learning theories based on my research and newly acquired knowledge about current learning theories. Since the conclusion of EdTech 504, I have made changes to my teaching based on current learning theories. For example, I have started teaching a Coding/Robotics elective to 6th grade students. This class has a maker feel to it with all kinds of hands on activities as they discover learning. Students use Makeblock robots and a program similar to Scratch to discover how to build and code the robot to perform tasks. The students also use MakeyMakey's to discover concepts such as circuits, conductivity, problem solving and alternate inputs. This elective course is designed to adhere to the tenets of the constructivist theory which states that we create meaning from experience and that a learner's construction of understanding depends on their interactions with new knowledge. (167)

5.3 Assessing/Evaluating: Candidates apply formal inquiry strategies in assessing and evaluating processes and resources for learning and performance.

The Final Evaluation Report conducted in EdTech 505 was very organized and procedural. The purpose of this report was to show whether the Google Classroom program met the proposed objectives. The evaluation was also performed to provide data to determine the current effectiveness of the program, the direction of the program and to guide decisions about its implementation in the future. I developed the skills to work with administrators to establish objectives, measure effectiveness based on those objectives and create a report that outlines the effectiveness (or ineffectiveness) of a program. Evaluations are needed in schools for various reasons including accountability for grant funds, budgeting, and continued allocation of district or state funds. During this process I learned how to establish measurable objectives, identify program components, data collection methods and data sources, and communicate the evaluation results in a succinct, understandable format.

In EdTech 504, I chose to write my Learning Theories Paper about the constructivist theory. Constructivism can be described as "meaningful learning in which a learner actively builds a mental model of the system she is to learn...and it is often used to mean discovery learning." (Chi, 2009, pg. 102). Within the framework of the constructivist theory, students participate in hands-on, self-directed learning experiences. Jensen points out that, "the transformative process of learning occurs between what the learner knew and what they now know" (1998). The result of creating this type of learning environment allows the student to construct new meaning based on their own background, knowledge and experience.

5.4 Ethics: Candidates conduct research and practice using accepted professional and institutional guidelines and procedures.

Creating an Annotated Bibliography helped me develop research skills within professional guidelines. I learned about the importance of identifying valid, research-based sources upon which my own research would be based as we were instructed to use only peer-reviewed sources in our research. We were taught theory shouldn't be readily or easily accepted until these theories and ideas were evaluated from an objective point of view, always open to weaknesses and strengths and ready to defend or defy based on those judgements. In addition, we were encouraged to seek information that was supported in more than one source, study or article as we referenced one article and its findings with another similar study. Looking so closely at sources and ideas is what creates an effective researcher. (125)

LIST OF ARTIFACTS

EDTECH 501 - Introduction to Ed Tech: Schroeder, Fall 2013

1. Digital Divide (2.5, 4.5)
2. RSS Tutorial (4.2)
3. Annotated Bibliography (3.2, 5.1)
4. School Evaluation (2.3, 3.4)

EDTECH 502 - Internet for Educators: Lowenthal, Spring 2014

5. Netiquette (1.5, 3.5, 4.5)
6. Jigsaw Activity (2.1)
7. Virtual Field Trip (2.2)
8. Mobile Learning (3.1)
9. Copyright Scavenger Hunt (3.5)
10. Robotics Webquest (2.5)

EDTECH 503 - Instructional Design: Fall 2016

11. Needs Assessment (2.3, 2.4)
12. ID Project (2.4, 4.1)

EDTECH 504 - Theoretical Foundations of Ed Tech: Ching, Summer 2017

13. Synthesis Paper (4.1, 5.1)
14. Theories of Educational Technology (5.2)
15. Learning Theories Paper (5.3)

EDTECH 505 - Evaluation: Thompson, Fall 2017

16. Final Evaluation Report (3.3, 4.2, 5.3)
17. Response to RFP (1.4, 4.4)

EDTECH 541 -Integrating Technology into the Classroom Curriculum: Gerstein, Spring 2017

18. Interactive Presentation (1.1)
19. Game-Based Learning (1.2)
20. Relative ADvantage Chart (1.3)
21. Assistive Technologies (1.5, 3.6)
22. Interactive Spreadsheet (2.1)
23. Reflective Journal (4.3)

EDTECH 542 - Project Based Learning: Summer 2014

24. Where in the World (1.1, 2.2)
25. Student Peer and Self Assessment (4.3)

EDTECH 597 - Maker Tech-STEAM: Hsu, Summer 2016

26. Maker Portfolio (3.1)

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