Lee Hanae Ung

EDTECH 592

Reflective Paper

## 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.

*EdTech 534: Mobile App Design for Teaching and Learning,* [*Kampos Final Project*](https://docs.google.com/document/d/1C8iqEKjlA1CI2wysBtMBZjRBN1kEnoa3vxN6dcK8tqk/edit?usp=sharing)

Using App Inventor 2, a block-based coding program for creating Android apps, I designed an app, Kampos, to enhance student memorization. By coding my own app, I was able to use an open-ended tool to create a targeted learning tool.

*EdTech 541: Integrating Technology into the Classroom Curriculum,* [*EdTech 541 Site*](http://edtech2.boisestate.edu/leeung/courses/541/)

The EdTech 541 site, created by adapting a free HTML5 template in Dreamweaver CC, lists the various artifacts created during the course. A variety of Web 2.0 tools were used in the creation of these artifacts, including Google Slides, Google Docs, Google Sheets, Slideshare, VoiceThread, Prezi, YouTube. I have mastered use of these collection of tools, even getting my Google Educator Level 2 certificate The site itself also demonstrates my ability to create learning environments using HTML and CSS coding.

These artifacts demonstrate the range of skills that I have developed while creating materials for the EdTech program courses. The variety of tools and skills I have practiced contribute directly to my ability to create instructional materials and foster learning environments to meet a diverse set of learner needs.

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

*EdTech 541: Integrating technology into the Classroom Curriculum,* [*Instructional Software Presentation*](https://prezi.com/wyn0nqyi7fhh/instructional-software-basics-applications/?utm_campaign=share&utm_medium=copy)

This artifact demonstrates effective use of Prezi and Google to research, compile and present information regarding digital instructional tools that can be used to enhance student learning. Using Google Search, I selected several Web 2.0 resources that can be used to target a variety of learning styles and skills for a middle school math program. The tools included, “Drill and Kill” practice, instructional games, problem-solving software, simulations and tutorials. Each type of tool was presented with a rationale for its usage with students and two specific resources available online.

*EdTech 542: Technology Project-Based Learning,* [*Project Based Learning Unit*](http://ourgalaxies.weebly.com/)

This artifact, a project-based unit hosted on Weebly, integrates various digital tools, including Twitter, Padlet and a ReadWriteThink timeline, to support learning. The selected tools, combined with Project Based Learning strategies, enhance student-centered learning by providing organizational and process support. Each tool serves a specific purpose; for example, Padlet allows students to share and collaborate in the research and inquiry phase of Project-Based Learning. The Project Based Learning Unit artifact demonstrates my ability to choose and apply technological tools in a way that enhances my pedagogical practice.

Both artifacts demonstrate my ability to select appropriate technology tools for purposeful use in my teaching practice. I can successfully find and integrate tools that aligns with various, student-centered pedagogies.

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

*EdTech 501: Introduction to Educational Technology,* [*School Evaluation Survey and Report*](https://docs.google.com/a/u.boisestate.edu/document/d/1ZTuFoO6fdlQbA_uiXeSo5Pn3xi99S6OA3B8-ss_C8dA/edit?usp=sharing)

This artifact is a comprehensive analysis of my international school in terms of technology integration. This analysis addressed the state of technology in the following areas: Administrative, Curricular, Support, Connectivity, and Innovation. In each of the areas, anecdotal data was used to assess the level of technology integration in order to discover gaps and areas for improvement. The summary, especially, shows my ability to use assessment information to provide an evaluation of technology programs.

*EdTech 505: Evaluation for Education Technologists,* [*Evaluation Report*](https://docs.google.com/document/d/1UbR5mYuaJLJiYNJnIP_y0qeBcO34GMRjaBlKuj1Y5vs/edit?usp=sharing)

The culminating project of EdTech 505 involved evaluating a program at my current school. I decided to evaluate a pilot math program aimed at middle school students. This hybrid program involved the integration of IXL, a digital practice tool, and Eureka Math, a curriculum with a digital interface. My final evaluation report incorporated results from a student survey and anecdotal feedback from the instructor to make recommendations for future development and integration of the math program into the school curriculum. This artifact demonstrates my ability to complete an evaluation of technology integration using appropriate assessment and research strategies.

These evaluation projects demonstrate my ability to use effective assessment strategies in real life contexts. With this work, I have shown that I am able to collect feedback to determine the success of technology integration efforts.

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

*EdTech 505: Evaluation for Education Technologists,* [*RFP Response*](https://docs.google.com/document/d/1ONaijJOzJElSQhwKrj0cMDOChQA92qwxfGIw7OuBhqg/edit?usp=sharing)

This artifact is a proposal written in response to a hypothetical request from a company looking to evaluate one of its education programs. For the proposal response, I completed a needs analysis, evaluation plan, task schedule, personnel descriptions and budget based on the information given by Far West Laboratory (FWL) for Educational Research and Development. In order to complete this artifact, I demonstrated my ability to produce a practical plan for managing people, process, company infrastructures and budgets to meet a performance goal.

*EdTech 536: Digital Game Design,* [*SpaceTime Game and Lesson Plan*](https://docs.google.com/document/d/1tbpb2iNBxEGm3fW8YtjIGGlnZ17zIvVWmi7pD1ymoXc/edit?usp=sharing)

In EdTech 536, I applied instructional design skills to create a GameSalad based simulation for use in an inquiry based class. This process resembled the ADDIE model of design with Analysis and Design phases (Culatta, 2013, “ADDIE Model”), but the development, implementation and evaluation phases occurred in a way more closely following rapid prototyping. The rapid prototyping involved constantly evaluating and revising the developing game according to performance criteria (Culatta, 2013, “Rapid Prototyping”).

To create the SpaceTime game, I identified an area of my science unit that would benefit from a simulation within my ability to create. This analysis involved managing a number of factors, including curriculum standards, inquiry goals, student need, time and skills with GameSalad. I evaluated and revised the simulation according to changing factors, mainly my developing programming skills. In this artifact, I have documented my process of setting goals, creating storyboards and planning a complete, differentiated lesson plan.

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

*EdTech 501: Introduction to Educational Technology,* [*Code of Professional Ethics in Educational Technology*](https://docs.google.com/document/d/1rEEy-vjSNsoobOZN4QQme_h9gCyn0zu1Ku7w9iEJlmw/edit?usp=sharing)

As part of our introduction to Educational Technology as a field, we learned about the Code of Professional Ethics provided by the Association for Educational Communications and Technology (AECT). To thoroughly understand the meaning and application of ethics, we engaged in an exercise evaluating a hypothetical situation and providing analysis and personal reflection. This artifact demonstrates my understanding of ethics in terms of professionalism in the field and my ability to relate it to my working experience.

*EdTech 504: Theoretical Foundations of Educational Technology,* [*Synthesis Paper*](http://edtechleehanae.weebly.com/uploads/2/7/2/9/27290235/504stemtheoutflowung.pdf)

In EdTech 504, continued my investigation of communities of practice by applying it to a recognized issue in education, teacher attrition. In this paper, I touched on a number of topics, including the role of administrations in professional development. I explored the high rate of teacher force loss in the United States and its connections to poorly received, standardized professional development and weak presence of communities of practice. In the end, what I was investigating touches core, ethical issues of being an educator. It considers the responsibilities that educators have for the profession, specifically the processes of making “available to patrons and colleagues the benefit of that person's professional attainments” (AECT, 2007). Building stronger communities of practice engages teachers in a supportive, developing environment and could reduce teacher attrition. I asserted that encouraging the open-ended formation of online communities of practice could improve teacher satisfaction.

## 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.

*EdTech 501: Introduction to Educational Technology,* [*EdTech Definition Graphic*](https://prezi.com/ggrqg5hcqnn_/winds-of-change/#)

To create this artifact, I researched the pedagogies that drive student-centered technology integration. By tying the definition of educational technology to a pedagogical rationale, I clarified the process I should complete while incorporating technology into my practice--mainly that technology should be used to enhance student-centered learning processes.

*EdTech 534: Mobile App Design for Teaching and Learning,* [*Kampos Final Project*](https://docs.google.com/document/d/1C8iqEKjlA1CI2wysBtMBZjRBN1kEnoa3vxN6dcK8tqk/edit?usp=sharing)

The final project of EdTech 534 involved consolidating the skills gained while learning to code mobile apps with App Inventor 2 and creating an original app that would have a clearly defined learning and performance outcome. I created an app called Kampos as a memorization enhancing aid. It allows students to create up to 6 unique voice messages that are then saved to a flickable, moving cat icon on the screen. Students can replay, erase and re-record their verbal messages over and over. The purpose of this app was to create an engaging, age-appropriate memorization aid that activates visual, kinesthetic, and auditory centers.

The premise of the app is based in Behaviorism; by associating the audio message to an interactive cat character (a visual cue), a student can condition themselves to connect the two and increase the rate and reliability of their memorization. This rationale fueled the design of the app and demonstrates my ability to design an appropriate learning tool based on learning theory.

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

*EdTech 502: The Internet for Educators,* [*Composter Video Project WebQuest*](http://edtech2.boisestate.edu/leeung/webquest/start.html)

I created this webquest in order to promote active, collaborative learning using educational technology. Using an adapted, free HTML5 template, I set up a guided webquest activity to guide students through a project that would result in the creation of an educational video. The website guides student through the process of planning, shooting and editing the video for a defined audience using Google Docs and Youtube Editor as the primary creation tools. This webquest demonstrates my ability to design technology-integrated processes and tools to support collaborate, student-centered learning.

*EdTech 504: Theoretical Foundations of Educational Technology,* [*Learning Theory Reflection*](https://docs.google.com/a/u.boisestate.edu/document/d/1RVfxzzjHvq5PWGBgjX_UgJNcpZZ9AU0JAqyjZDQYGJI/edit?usp=sharing)

This artifact was created as a reflection on communities of practice in relation to my teaching practice. It contains both my understanding of a collaborative learning theory and my thoughts on how to implement a community of practice within my middle school classes. In their original descriptions, communities of practice follow specific guidelines that are difficult to scaffold. In true communities of practice, membership is flexible, identity is based on shared experience, and duration only lasts as long as members find them interesting (Wenger, 1998). The direction of learning is not governed by an outside body.. For middle schoolers, who may require a degree of guidance, this lack of guidance can be difficult to practically implement, but I considered ways in which communities could be adapted for my teaching situation through student blogging. Blogging would encourage learners to share their learning and interact with their peers via comments. It would permit greater independence and responsibility, which would promote development of a community of blogging learners. This reflection demonstrates how I can adopt pedagogy to promote appropriate learning processes.

### **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.

*EdTech 501: Introduction to Educational Technology,* [*School Evaluation Survey and Report*](https://docs.google.com/a/u.boisestate.edu/document/d/1ZTuFoO6fdlQbA_uiXeSo5Pn3xi99S6OA3B8-ss_C8dA/edit?usp=sharing)

The process of producing this artifact involved using and analyzing evaluative procedures to assess the maturity of the technology program at my current school. I applied a maturity framework to various areas of a technology program used my observations to assess and evaluate the current state implementation, instruction and development. From the summaries in each actionable area, I made suggestions for further improvement of the program. This report documents the progression of my inquiry process and my ability to assess and evaluate technology programs in authentic contexts.

*EdTech 505: Evaluation for Educational Technologists,* [*Evaluation Report*](https://docs.google.com/document/d/1UbR5mYuaJLJiYNJnIP_y0qeBcO34GMRjaBlKuj1Y5vs/edit?usp=sharing)

This report documents the process I completed, during EdTech 505, to evaluate the efficacy of implementation of a pilot mathematics program at my workplace. By identifying appropriate evaluation questions to provide relevant information to decision-making bodies, I developed an evaluation plan that served its intended purpose effectively. It assessed how well the program had aligned with certain goals, like providing clear access to math concepts. Inside the report, one can see the plan, data collection, analysis and resulting recommendations. This evaluation report serves as evidence of my ability to use the inquiry process to evaluate the effectiveness of a technology-integrated programs. It also demonstrates my commitment to reflective practice, as I am also the principal designer and teacher of the pilot mathematics program.

### **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.

*EdTech 502: The Internet for Educators,* [*Microscopic Universe*](http://edtech2.boisestate.edu/leeung/502/virtualtour/virtualtour.html)

The Microscopic Universe Jigsaw Activity was created during EdTech 502 to demonstrate my ability to use HTML and CSS coding to create a digital tool for collaborative learning. The remise of the jigsaw activity is for learners to become familiar with a specific piece of knowledge that can be combined with others to create a large understanding. It is based on Constructivist pedagogy and drives learners towards collaborative learning. As it was created, the Jigsaw Activity can be adapted for individuals and small groups.

*EdTech 502: The Internet for Educators,* [*Composter Video Project Webquest*](http://edtech2.boisestate.edu/leeung/webquest/start.html)

This webquest is a Web 2.0 tool created to guide students through the process of creating an educational video targeted to the parents and students of the school. I created this project to use in my after school club, and my final artifact demonstrates my ability to create a complete learning activity, including evaluation and reflection, that supports student-centered learning. The structure of this activity allows for creative diversity using appropriate technological processes.

Both of these self-contained learning activities demonstrate my ability to utilize technological processes to create supportive, student-centered learning environments. They are designed flexibly to suit a diversity of learners and are clearly linked to Constructivist learning pedagogies.

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

*EdTech 501: Introduction to Educational Technology,* [*Digital Divide Presentation*](http://voicethread.com/myvoice/#thread/6097780/31296939/32789450)

While examining the Digital Divide at my international school, cultural context played a large part in why my findings about Japan’s use of technology in education did not align with my preconceptions as an outsider. As an American, I viewed Japan as a technologically advanced society due to advancements in robotics, personal electronics and entertainment. I found that education in Japan has little to no computer or Internet integration, and a surprising percentage of Japanese families do not have internet access or a computer available at home. Acknowledging this cultural difference as a factor in the Digital Divide here, I looked for ways to advance the technology learning of the educators at my school in a way that could transfer to students. This process of identifying cultural contexts to address the digital divide issue shows my ability to apply my knowledge of a population to improve technology-integrated implementation in my school.

*EdTech 542: Technology Project-Based Learning,* [*Project Based Learning Unit*](http://ourgalaxies.weebly.com/)

This artifact is a complete, project-based learning unit hosted on a Weebly site. The site provides all of the scaffolded materials and resources necessary to create a powerful, engaging science unit for middle school students.

The Entry Event, used to jumpstart the inquiry process, involves students visiting a local science museum and comparing that museum to others around the world using iPads. The purpose of this Entry Event is to help students recognize the context of what they are discovering and their place as learners in a diverse, international community of learners. The introduction of other countries’ science exhibits emphasizes the importance of international scientific collaboration. This artifact demonstrates my ability to incorporate learning processes, enhanced by technology and media, that spotlight multiculturalism.

## 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.

*EdTech 502: The Internet for Educators,* [*Jigsaw Activity*](http://edtech2.boisestate.edu/leeung/502/jigsaw.html)

This artifact was an instructional design product created to enhance student-centered, collaborative learning. Jigsaw Activities split large projects into pieces that learners can work on independently and later share with the group. This process allows learners to build knowledge and is based in Constructivist pedagogy. Using HTML and CSS coding, I created a visual online guide to the Jigsaw activity that can be used in digital classrooms and with learners across geographic locations.

*EdTech 536: Digital Game Design,* [*SpaceTime Game and Lesson Plan*](https://docs.google.com/document/d/1tbpb2iNBxEGm3fW8YtjIGGlnZ17zIvVWmi7pD1ymoXc/edit?usp=sharing)

For the final EdTech 536 project, I designed a GameSalad-based simulation game to be incorporated into a science unit about space. The game allows students to independently explore a space simulation in order to gain a better understanding of space. The planning template for the game required us to provide an explanation for how our design was instructional and entertaining.

Though I was not successful in bringing my prototype game to the level of complexity I originally planned, the planning document shows my original game design and its connection to learning principles and current, student-centered best practices.

**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.

*EdTech 503: Instructional Design, Leading Discussion #3,* [*Collaborative Presentation*](https://voicethread.com/myvoice/#thread/6534877/)

Context analysis, a process I practiced in EdTech 503, enables the user to examine the learning environment in order to create the optimal conditions for learning. Used effectively, it can alert instructors to potential issues that would impede learning for their students. In our class discussions, we applied context analysis to case studies in order to authentically simulate usage of the processes and resources that would lead to professionally sound decision-making. My understanding of learning contexts directly contributes to my ability to provide an optimized learning environment for a variety of learners and environments.

*EdTech 541: Integrating Technology into the Classroom Curriculum,* [*Instructional Software Presentation*](https://prezi.com/wyn0nqyi7fhh/instructional-software-basics-applications/?utm_campaign=share&utm_medium=copy)

While creating technology resources for EdTech 541, I focused on middle school mathematics as my content area. With that in mind, this Prezi presentation was created in order to introduce different types of instructional software. For each type of software, I provided a description, a relative advantage, and specific tools; these summaries could provide any middle school educator with enough information to integrate technology effectively in their classrooms. The aim of this exercise was to provide educators with resources that will help them enhance their practice in congruence with student-centered learning principles. The juxtaposition of the relative advantage descriptions and specific tools demonstrates my decision-making processes when choosing appropriate technology-based learning tools.

**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.

*EdTech 503: Instructional Design,* [*Final Instructional Design (ID) Report*](https://docs.google.com/document/d/1XPAhdWnIqT0AGo1HhrkPAFdi0GG9cFpMF8XQq7M8KSk/edit?usp=sharing)

The Google+ Community-based professional development forum that I created as my final instructional design project for EdTech 503 focused on teacher training and community of practice. In order to target the aspects of my final design directly at gaps in the existing program, I surveyed the staff at my international school about current technology usage, comfort level and professional development goals of the teaching population. The survey, created in Google Forms and collated in Google Sheets, served as my primary assessment method. I also included anecdotal observations as a secondary data source. The resulting instructional product was created based on the feedback from the survey teachers. This artifact demonstrates my ability to use formal and informal assessment strategies to improve the learning environment.

*EdTech 541: Introduction to Educational Technology,* [*Relative Advantage Chart*](https://docs.google.com/document/d/1uwsKxGNPH0lTZDnLt2BMlEbBHzVZndsy01koHI3NB-A/edit?usp=sharing)

This artifact is an example of an assessment I completed to determine the relative advantages of different digital tools on science learning. To complete the chart, I determined the problem that the technology would address, the relative advantage of using the identified technologies and the expected student performance outcomes. Then, I looked over product reviews, tested the software and visualized where the product could fit into middle school math instruction. The resulting presentation demonstrates my ability to collect and use data to improve instructional practice.

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

*EdTech 503: Instructional Design,* [*Final Instructional Design (ID) Report*](https://docs.google.com/document/d/1XPAhdWnIqT0AGo1HhrkPAFdi0GG9cFpMF8XQq7M8KSk/edit?usp=sharing)

EdTech 503 centered around creating an instructional product using instructional design processes. In creating my final instructional product, I completed a design cycle that involved research, needs analysis, data analysis, prototyping and reflection. This artifact involved identifying a need and creating an instructional tool or program to address that need. For my instructional design project, I analyzed and tackled the issue of teacher professional development and lack of a community of practice at my current international school. In response to this need, which I identified through the use of Google Forms and Sheets, I designed a workshop format for professional development based in a Google+ Community where teachers could share resources and give feedback. This mechanism aimed to increase teacher collaboration, knowledge and comfort with technology-based skills and resources.

**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.

*EdTech 501: Introduction to Educational Technology,* [*Appropriate Use Policy Research and Reflection*](https://edtechlee.wordpress.com/2015/01/27/aups-should-put-students-at-the-drawing-table/)

This artifact is intended to provide an introduction to Acceptable Use Policies (AUPs), including how to support the development of student-centered AUPs. AUPs are sets of guidelines that address various aspects of safe technology use. They can cover issues such as digital citizenship, cyberbullying, security and search engine skills. In this artifact, I reflect on the rising popularity of student-generated, empowering AUPs and how I can foster a positive digital learning environment at my own school. To support my findings that guided, student-created AUPs can provide a valuable base framework for a safe learning environment; I provide links to example of “good” and “bad” AUPs. This artifact demonstrates my knowledge and appreciation of the tools and strategies that contribute to a safe learning environment for my students.

*EdTech 502: The Internet for Educators,* [*Public Domain+ Scavenger Hunt*](http://edtech2.boisestate.edu/leeung/502/scavenger.html)

This Scavenger Hunt sends learners on a guided journey to discover the ins and outs of the public domain. The multi-step exercise provides users with guiding questions and corresponding resources; the answers are provided at the end of the activity for assessment. In order to complete this assignment, I investigated public domain resources to determine what basic information I wanted to convey to my audience, beginner graphic designers. This artifact demonstrates my knowledge of public domain and copyright in terms of a defined learners’ context.

*EdTech 541: Integrating Technology into the Classroom Curriculum,* [*Internet Safety for Teens (2015)*](https://edtechlee.wordpress.com/2015/03/07/internet-safety-for-teens-2015-edition/)

In this artifact, I analyzed and interpret surveys examining teen internet use. The central focus of the research was to provide parents with guidance for talking about Internet safety with their children. I cited findings from the Pew Research Center that teens were significantly more likely to talk to their parents over their teachers; this formation led to me changing the audience of my internet safety advice from teens to their parents. I provide the parents with suggestions for how to open and guide conversation with their teenagers regarding different aspects of Internet safety. This guide demonstrates how I help create a safe, online environment for my students by educating their guardians.

**3.6 Diversity of Learners:** Candidates foster a learning community that empowers learners with diverse backgrounds, characteristics, and abilities. (p. 10)

*EdTech 541: Integrating Technology into the Classroom Curriculum,* [*Assistive Technology Presentation*](https://docs.google.com/presentation/d/14jSc3YwcYrgzBqOCWjtfFokjWm8I33D4mbAW6nW3RB0/embed?start=true&loop=true&delayms=5000&slide=id.g7723ba434_0_0)

My research and subsequent presentation on Assistive Technology for EdTech 541 aimed to provide suggestions for support and integration tools for at-risk learners and learners living with disabilities. A large part of technology integration involves ensuring that learners receive equitable access to learning opportunities. As an educator it is my responsibility to identify learner needs, create solutions and evaluate the success of my programs as a continuous practice. This artifact demonstrates my commitment and rationale in delivering the latest, most appropriate technology tools to my learners.

*EdTech 541: Integrating Technology into the Classroom,* [*Multimedia in Education*](https://www.youtube.com/watch?time_continue=63&v=SrdbZYnjriY)

This YouTube-based artifact was created in EdTech 541 as a reflection on the relative advantages of using multimedia in the classroom. I used this assignment to create an artifact that served both as a reflection and as an instructional video. I demonstrated how multimedia can be used to connect learners to information from different parts of the world by creating an English language introduction to traditional Japanese Tea Ceremony. To summarize the relevant points in this artifact, multimedia platforms like YouTube can provide learners with broadened access to learning materials from virtually anywhere in the world. A globalized learning platform means a more diverse pool of learning materials, which benefits all learners.

## 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.

*EdTech 503: Instructional Design,* [*Final Instructional Design (ID) Report*](https://docs.google.com/document/d/1XPAhdWnIqT0AGo1HhrkPAFdi0GG9cFpMF8XQq7M8KSk/edit?usp=sharing)

The goal of my final Instructional Design product was improving technology-centered community of practice at my school; I created a Google+ Community to act as a center for sharing technology-based resources. The learners, in this case, were the teachers at my school. After surveying the staff and considering the predominant use of Google Apps for Education for Learning for instruction and faculty matters, I determined that a Google-based approach would be the most appropriate. In collaboration with the staff, I implemented the “DESK PD Zone” and currently in the process of reorganizing and revising the design based on staff feedback.

*EdTech 503: Instructional Design, Leading Discussion #3,* [*Collaborative Presentation*](https://voicethread.com/myvoice/#thread/6534877/)

Context analysis, a process I practiced in EdTech 503, enables the user to examine the learning environment in order to create the optimal conditions for learning. In this activity, I collaborated asynchronously to create this narrated presentation. In our group’s discussions, we analyzed readings, designed the Voicethread narration and slide-based presentation and led a whole class discussion regarding our findings. This activity demonstrates me collaborative capabilities.

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

*EdTech 503: Instructional Design,* [*Final Instructional Design (ID) Report*](https://docs.google.com/document/d/1XPAhdWnIqT0AGo1HhrkPAFdi0GG9cFpMF8XQq7M8KSk/edit?usp=sharing)

For my instructional design product, I created a proposal for a Google-based forum to promote a community of practice focused on development of my school’s technology programming. In this Google+ community, the teachers would be free to share resources, request help and make suggestions. This community aimed to enhance the collaborative curriculum planning already ongoing in the teaching staff. This artifact demonstrates my role as a technology leader within my school. I created a tool to enhance communication and collaboration with my peers, and I will use that tool to share my design and implementation strategies.

*EdTech 542: Technology Project-Based Learning,* [*Project Based Learning Unit*](http://ourgalaxies.weebly.com/)

This artifact is a complete, project-based learning unit hosted on a Weebly site. The site provides all of the scaffolded materials and resources necessary to create a powerful, engaging science unit for middle school students. The Our Galaxies, Ourselves unit created for EdTech 542 formed the base model for my units in my current practice. After I began using Weebly at work, my school coordinator asked me to share my strategies at a faculty meeting; since then, I have become the resident technology-supported project-based learning expert. This is an authentic example of how my work in EdTech affected my teaching practice and allowed me to act as a technology leader within my school community.

**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.

*EdTech 541: Integrating Technology into the Classroom Curriculum,* [*Walled Gardens Reflection*](https://edtechlee.wordpress.com/2015/03/14/breaking-down-the-walled-gardens/)

This artifact includes my analysis and reflection on social media in classroom practice. “Walled gardens” is the term commonly used to describe protected, online learning environments. Social media can broaden learners’ access to resources, experts and authentic learning contexts; however, the risks of incorporating such tools deters many educators. As a teacher at a school that has increasingly incorporated social media into student learning, reflecting on the use of social media in the classroom is vital.

In EdTech 541, I considered common criticisms of social media by educators and provided counterpoints in the form of example programs from Singapore and my own school. My final stance on whether walled gardens should be broken down in schools exists somewhere between walled gardens and open access. I provide an example of how my school allows open access of the Internet but manages student dialogue and collaboration in protected Google+ Communities. This reflection demonstrates my ability to analyze and reflect on the effectiveness of technology supported instruction in a way that helps me advance my professional growth.

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

*EdTech 505: Evaluation for Educational Technologists,* [*Gap Analysis*](https://prezi.com/ndgvrwromg2p/gap-analysis/?utm_campaign=share&utm_medium=copy#)

A year ago, I was tasked to develop a middle school math program at my current school. This development task coincided with the EdTech 505 course, so I focused the evaluation strategies I learned in class on developing mathematics program. One of the artifacts, a gap analysis, asked us to analyze and develop an evaluation plan. I decided to use the gap analysis model to assess the existing mathematics program and plan an approach to evaluating the program I was implementing. This exercise enabled me to map out my planned actions for the program based on observation and data collected in a needs analysis. This artifact demonstrates my ability to design assessment and evaluation plans that align with learning goals and instructional programs.

*EdTech 505: Evaluation for Educational Technologists,* [*Evaluation Report*](https://docs.google.com/document/d/1UbR5mYuaJLJiYNJnIP_y0qeBcO34GMRjaBlKuj1Y5vs/edit?usp=sharing)

The evaluation report I completed analyzed and provided feedback on a pilot mathematics program recently implemented at my school. To complete the evaluation, I followed an outline that I created to identify and address key areas of interest for the evaluation audience. These objectives acted as the framework I used when designing and implementing the evaluation data collection methods. The resulting report shows my ability to plan an evaluation with clear methodology, data, interpretation and feedback.

**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.

*EdTech 501: Introduction to Educational Technology,* [*Digital Divide Presentation*](http://voicethread.com/myvoice/#thread/6097780/31296939/32789450)

To investigate the issue of digital divide at my school, I examined the quality and quantity of Internet access in Japan and at my international school. I looked into academic research about computer usage and standardized testing performance in Japanese classrooms. To complete this investigation in a balanced manner, I referred to research and maintained objectivity when reporting cultural trends. This VoiceThread presentation demonstrates my ability to analyze foreign cultures and a diversity of learners ethically and respectfully.

*EdTech 502: The Internet for Educators,* [*Web Accessibility Hot Links*](http://edtech2.boisestate.edu/leeung/502/accessibility.html)

This artifact demonstrates my knowledge and use of accessibility resources in an Internet context. By creating this page both as a resource for those looking to learn about web accessibility and an example of an accessible page for people living with visual impairments, I demonstrated my ability to apply research and design principles to create resources for digital learners living with visual impairments and for people seeking to incorporate universal design into their practice.

## 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.

*EdTech 504: Theoretical Foundations of Educational Technology,* [*Annotated Bibliography*](http://edtechleehanae.weebly.com/annotatedbib-504.html)

EdTech 504 allowed me to explore literature on different pedagogy-based teaching practices to build my understanding of how educational theory influences current teaching practice. For this artifact, the focus of my research centered around fostering communities of practice. I wanted to learn about factors that contribute to creating and maintaining healthy teacher communities at schools. What I found was that Web 2.0 tools were being increasingly integrated into teaching communities to enhance professional collaboration. By creating this artifact, I was able to better understand the history of research that contributed to the formation of the concept of communities or practice, as well as research trends regarding technology integration into current teaching communities.

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

*EdTech 503: Instructional Design,* [*Final Instructional Design (ID) Report*](https://docs.google.com/document/d/1XPAhdWnIqT0AGo1HhrkPAFdi0GG9cFpMF8XQq7M8KSk/edit?usp=sharing)

The process of designing a learning product involves identifying a need, collecting relevant data, and using that information to guide the planning of a solution. I completed a design cycle for EdTech 503; it resulted in a Google+ Community-based forum for teachers to share, request and review technology resources. I utilized relevant research tools, including needs assessment, task analysis, an objectives matrix table and ARCS Model of Motivation in order to create a product that would effectively enrich learning and sharing of technology tools. For this product, I applied research methodologies to create an enriching, learner-centered instructional product.

*EdTech 505: Evaluation for Educational Technologists,* [*Gap Analysis*](https://prezi.com/ndgvrwromg2p/gap-analysis/?utm_campaign=share&utm_medium=copy#)

Gap analysis, a process used in evaluations, involves performing a needs analysis on the current situation, considering new approaches, and determining goals for the future; in addition to completing these steps for this presentation, I also provided information about the program I was in the process of evaluating. In that description, I provided relevant information about the program’s philosophy, needs analysis, program planning, implementation, formative evaluation and summative evaluation. This Prezi demonstrates my ability to apply and incorporate gap analysis into my evaluation processes. It also shows how I have used research methodologies, like need analysis, during the creation of educational programs.

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

*EdTech 501: Introduction to Educational Technology,* [*School Evaluation Survey and Report*](https://docs.google.com/a/u.boisestate.edu/document/d/1ZTuFoO6fdlQbA_uiXeSo5Pn3xi99S6OA3B8-ss_C8dA/edit?usp=sharing)

The purpose of the School Evaluation and Survey was to perform a detailed analysis of the technology program at my current school. That analysis was completed using a maturity framework, which guided the inquiry questions I used to inform my assessment. I used a staff survey, individual interviews and anecdotal observations to inform my final evaluation of the various areas of the technology program. This artifact demonstrates my ability to use formal inquiry strategies, to evaluate processes and performance.

*EdTech 505: Evaluation for Educational Technologists,* [*Evaluation Report*](https://docs.google.com/document/d/1UbR5mYuaJLJiYNJnIP_y0qeBcO34GMRjaBlKuj1Y5vs/edit?usp=sharing)

The final evaluation report created for EdTech 505 was the culmination of a semester-long evaluative process. The evaluation followed the formal inquiry pattern by, first, identifying the evaluation questions, performance objectives, and evaluation plan. next the appropriate evaluation model was selected and the methods for investigation were chosen. In this case, I used a student survey and anecdotal observations as my primary data sources. Finally, I interpreted and analyzed the data to form a set of recommendations aligned with the original evaluation objectives. The resulting report demonstrates my ability to utilize the inquiry process to evaluate a learning program.

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

*EdTech 501: Introduction to Educational Technology,* [*Code of Professional Ethics in Educational Technology*](https://docs.google.com/document/d/1rEEy-vjSNsoobOZN4QQme_h9gCyn0zu1Ku7w9iEJlmw/edit?usp=sharing)

As part of our introduction to Educational Technology as a field, we learned about the Code of Professional Ethics provided by the Association for Educational Communications and Technology (AECT). To thoroughly understand the meaning and application of ethics, we engaged in an exercise evaluating a hypothetical situation and providing analysis and personal reflection. This artifact demonstrates my comprehension of the accepted

*EdTech 504: Theoretical Foundations of Educational Technology,* [*Synthesis Paper*](http://edtechleehanae.weebly.com/uploads/2/7/2/9/27290235/504stemtheoutflowung.pdf)

In EdTech 504, I conducted extended research on Communities of Practice (COP) in teaching communities. In the final paper for the course, we were asked to connect a learning theory to technology integration. Each year, approximately 6% of the teaching force leaves the field and 7% transfers schools, which leaves U.S. schools looking to fill about 240,000 open positions per school year (Roth & Swail, 2000). I explored the high rate of teacher force loss in the United States and its connections to weak COP presence; my proposed technology-integrated solution involved creating a digital community of practice to connect teachers in local and global contexts. Research into the current teacher loss issue and communities of practice involved reviewing peer-reviewed articles and reports. The final paper follows the APA format; all sources were cited in accordance with APA citation guidelines. This artifact demonstrates my ability to conduct research using accepted institutional guidelines and procedures.

### EDTECH 501 Introduction to Educational Technology: Schroeder, Fall 2014

* EdTech Definition Graphic (2.1)
* Digital Divide Presentation (2.5, 4.5)
* Code of Professional Ethics in Educational Technology (1.5, 5.4)
* Appropriate Use Policy Research and Reflection (3.5)
* School Evaluation Survey and Report (1.3, 2.3, 5.3)

### EDTECH 502 Internet for Educators: Scoresby, Fall 2014

* Web Accessibility Hot Links (4.5)
* Public Domain+ Scavenger Hunt (3.5)
* Microscopic Universe Jigsaw Activity (2.4, 3.1)
* Composter Video Project WebQuest (2.2, 2.4)

### EDTECH 503 Instructional Design: McGrath, Spring 2015

* Leading Discussion Collaborative Presentation (3.2, 4.1)
* Instructional Design Software Presentation (3.4)
* Final Instructional Design (ID) Report (3.3, 3.4, 4.1, 4.2, 5.2)

### EDTECH 504 Theoretical Foundations of Educational Technology: Yang, Summer 2015

* Learning Theory Reflection (2.2)
* Annotated Bibliography (5.1)
* Synthesis Paper (1.5, 5.4)

### EDTECH 505 Evaluation for Educational Technologists: Thompson, Spring 2016

* RFP Response (1.4)
* Gap Analysis (4.4, 5.2)
* Evaluation Report (1.3, 2.3, 4.4, 5.3)

### EDTECH 511 Interactive Courseware Development: Parlin, Fall 2016



### EDTECH 534 Mobile App Design for Teaching and Learning: Hsu, Summer 2015

* Kampos Final Project (1.1, 2.1)

### EDTECH 536 Digital Game Design: Baek, Fall 2015

SpaceTime Game and Lesson Plan (1.4, 3.1)

### EDTECH 541 Integrating Technology into the Classroom Curriculum: Gerstein, Spring 2015

* EdTech 541 Site (1.1)
* Relative Advantage Chart (3.3)
* Internet Safety for Teens (3.5)
* Walled Gardens Reflection (4.3)
* Assistive Technology Presentation (3.6)
* Multimedia in Education (3.6)
* Instructional Software Presentation (1.2, 3.2)

### EDTECH 542 Technology Supported Project Based Learning: Baek, Summer 2016

* Project Based Learning Unit (1.2, 2.5, 4.2)

**References:**

AECT. (2007). Code of Professional Ethics. Retrieved November 3, 2016, from http://aect.site-ym.com/members/group\_content\_view.asp?group=91131&id=309963

Culatta, R. (2013). ADDIE Model. *Instructional Design*. Retrieved October 19, 2016, from http://www.instructionaldesign.org/models/addie.html

Culatta, R. (2013). Rapid Prototyping. *Instructional Design.* Retrieved October 15, 2016, from http://www.instructionaldesign.org/models/rapid\_prototyping.html

Roth, D., & Swail, W. S. (2000). Certification and Teacher Preparation in the United States. Washington, D.C.: Educational Policy Institute

Wenger, E. (1998). Communities of practice: Learning as a social system. *Systems Thinker,* *9*(5), 2-3.