

Reflection Paper

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Introduction

In 2014, I accepted a job offer to work at a German international school in Kobe, Japan as an assistant teacher. My confidence in my skills as an educator was at a low, and I didn't feel ready to be in charge of my own classroom. I had been out of the student-centered classroom for too long while I was teaching English in the countryside. Now, two years later, I am one of the founding teachers of an innovative, middle school program, the school's ICT Coordinator and a math and science curriculum designer.

These incredible, last two years have been a whirlwind anchored by the Boise State EdTech Program. When I was creating proposals, negotiating with the School Board, reporting to the administration and completing program evaluations, EdTech supported me practically and pedagogically. I became an ICT innovator at my school by virtue of the skills I picked up from the program.

When I started at my current school, I realized that I would have a great deal of free time. I wanted to use that time to improve myself as an educator. I had been taking Codecademy courses to teach myself HTML and CSS, and I wanted to continue to learn about digital tools in education. Coming from a progressive, student-centered teaching environment, I value project-based learning and sought out a graduate program that would allow me to be authentically creative and self-directed in my classwork.

My school features prominently in my EdTech Portfolio, proving how authentic and beneficial the program has been for me. As I reflect on my past two years of learning, I can see where certain truths I identified and internalized during the program will be ones that I carry with me into my teaching career.

Lesson One: Educators should lead and learn by example

While completing the EdTech program, I had the opportunity to experience a variety of teaching styles in an online learning context. Though the program actively promotes student-centered learning through its courses, the level of organization, scaffolding and other learning supports differed greatly from instructor to instructor. As a learner in multiple project-based classes, like EdTech 534, 534, and 542, I found courses that provided clear performance objectives, easy access to resources and consistent feedback from the instructors were the best indicators of potential deep learning. The variety and complexity of digital tools was not a consistent indicator for the quality of learning in the class, though I did enjoy learning to code with various tools like App Inventor 2, Unity and GameSalad.

Having to act as a self-directed learner with a diverse set of instructor styles taught me the importance of the teacher as role model in appropriate, supported project-based learning. If I stay organized in my teaching, my students can better learn to organize and self manage their learning. If I use my attitudes, skills and strategies to solve issues and actively improve my teaching, my students will feel more comfortable engaging with and overcoming their areas of weakness.

Modelling productive learner attitudes and traits for my students is now a large part of my ongoing, professional development. I have seen my middle school students respond to my modelled teaching, with all of its missteps and revisions, positively because it allows them to acknowledge and productively work on their developmental goals. Towards that end, I have used strategies and tools from EdTech to improve my self-reflection and bolster the reflective activities that I use with my students.

Lesson Two: Evaluation is central to all design and all teaching

Before, EdTech, most of my evaluation came in the form of teacher reflection and student self-evaluations. Now as I am headed for graduation, I will be walking away from the EdTech program with a deep, practical understanding of evaluation in both a general and education-specific sense. The role of evaluation, specifically ongoing reflective practice, has become a cornerstone of my practice.

Instructional design models, like the ADDIE model, help users visualize appropriate steps in the process of designing learning units. In EdTech 503, the instructional design models that I connected the most with involved ongoing reflective practice. In the EdTech courses, I engaged with the design cycle regularly, following the processes learned in EdTech 503.

Spiral-type rapid prototyping, which involves designing the skeleton of a unit and constantly revising it from user feedback (Culatta, 2013), is a practice that I have been implementing consistently in my current practice. Much like a spiral curriculum is based on Constructivism, a rapid prototype unit relies on the teacher reflecting and revising units as learners are going through them. Though it requires a lot of improvisational teaching practice, backed up by research and scaffolding, I have found that my units are significantly more relevant, authentic and Constructivist for my students. They can truly direct their learning because my planning is designed to be responsive to their performance and feedback.

The more I have incorporated reflective practice, the more differentiated and truly student-centered my units have become. I feel like I am developing a style of Constructivist teaching that is truly learner responsive, and the community at my school has responded positively to the results of that style of teaching.

Lesson Three: Pedagogy should guide technology integration

In order to develop curriculum and innovate effectively, it is better to have as many tools in one's toolbox as possible. The most influential teachers I have worked with are lifelong learners, and they anchor their knowledge within research-driven pedagogy and practice. When looking for a graduate program, I actively sought out a program that valued this approach to education.

The EdTech program promotes "imaginative learning environments" as one of its department's missions (Boise State University, 2016); during my time as a graduate student, I learned to see the possibilities in designing curricula, tools and resources to promote many types of learning. As a learner, I experienced collaborative learning, inquiry-based learning, project-based learning and other student-centered learning styles supported by technology. As an educator, I could see that appropriately applied technology corresponded purposefully with learning objectives and aligned with relevant pedagogy.

One of my big takeaways from the EdTech Program was the use of technology to create authentic student-centered learning. The lessons in my technology integration classes exposed me to new resources and technology tools; the process-focused classes, like those that emphasized evaluation, allowed me to streamline my research and assessment methods. My role as a teacher has completely switched from director to facilitator through my incorporation of technology tools like Padlet, Weebly and other collaborative tools. As a result I have seen my students engage more enthusiastically in clear Constructivist, inquiry-based learning. They naturally move through the stages of inquiry, and the emphasis on student-directed projects and learning puts them into a position of collective responsibility. The benefits of skills, like

communication, collaboration and research, become apparent as the students reflect on their learning, leading them to form communities of practice to mutual benefit.

Lesson Four: Collaborative learning leads to creative development

Moodle, the online learning platform used by the EdTech program, allows for learners to interact in forum-based discussions. In the context of collaborative learning, forums allow learners to share discoveries, seek help and give advice; this enriches the depth and breadth of study. Participating in a scaffolded, responsive community of practice was a new, welcome experience for me; as a direct result, I am in the process of adapting it for my own classroom.

In my research on communities of practice, I explored both theoretical and practical applications of communities of practice. Communities of practice involve situated learning where members take on roles as old-timers and newcomers (Lave and Wenger, 1991). Newcomers learn from old-timers, and the old-timers depend on the newcomers for the continuation of the community of practice (Lave, 1991). In adolescence, forming these types of relationships is holistically beneficial to the child.

My teaching practice has increasingly centered around promoting technology-integrated collaboration. Using principles and support techniques modelled for me by EdTech professors, I have set up a central learning hub for my students, across multiple grades, in Google+ Community. There they can share and develop their class learning. Students in Grade 6 to 8 can see and comment on what other students are investigating and learning, and this exchange has promoted a more supportive, inclusive learning community.

The students are actively sharing their learning strategies, tools and reflections within their community of practice. Due to this increased transparency between learners, my differentiation techniques have shifted naturally to incorporate more Universal Design.

Lesson Five: Universal design enhances universally

Universal Design of Instruction (UDI) is the natural progression from typical, in-class differentiation, and one that I have enjoyed trying to implement in my current practice. The Center for Applied Special Technology (CAST) defines three areas that will help educators provide their learners with flexible options: multiple representations of information, alternative means of expression, and varied options for engagement (Meyer, 1998). Like classroom differentiation techniques, UDI principles, when applied to technology integration allow students wider access to skills and tools to help them become effective 21st Century learners (National Center on Universal Design for Learning, 2014).

As I studied how to use and integrate accessible tools in EdTech 502 and 541, I began see how tools aimed for specific user needs could serve the whole population. Offering my students more options has increased engagement, relevancy and assessed performance; I believe this is because they are exploring how they best learn in addition to the requisite content, skills and concepts.

A clear example of how Universal Design has benefited the community of practice in my class is the use of dictation as a note-taking tool. In my middle school science classes, students have independent research time where they are required to record their lab reports, especially procedures and observations. One of the students in my class writes at a fraction of the speed of his peers; this is part of a larger set of lagging skills targeted in his individual learning plan.

Instead of providing him with a personalized set of tools and strategies, I have tried to use Universal Design principles, and it has had some wonderful results.

Though we practice note-taking in science, the focus of the independent research time is on conceptual learning and technical skill building. I scaffolded the target student by contacting his parents to discuss the purpose of the dictation tools and make sure the student had a microphone function on his headphones. To all students, I offered dictation tools as an option to use while doing independent research. Instead of traditional differentiation where the student might feel singled out for having individualized learning tools, I required the class to test usage of the dictation tool before choosing a recording method that best suited each of them. Some of the other children in the class decided to use dictation for their note-taking, which encouraged the target student to use the tool as well.

Our community of practice is flourishing; nothing makes that more obvious than the way the students conduct themselves and treat one another. They help one another seamlessly, without prompting from the teacher. They can offer words of comfort or make productive suggestions that indicate a genuine empathy for others. Universal design allows for a level of inclusion that I have previously not experienced as a teacher who regularly works with students with learning needs.

Lesson Six: Personalized learning is the future of true inclusion

Inclusion is a concept that is hard to pin down. In my experience, teachers work with parents and the student to create an Individualized Educational Plan (IEP) that involves scripts, strategies and tools for the student. As teachers, we aim for inclusion, meaning that students

with learning differences look to be integrated with the social, physical and academic fabric of the class. In actuality, I've noticed that many children with identified learning needs tend to avoid or reject individualized tools, strategies or experiences that separate them from others.

During my ongoing implementation of Universal Design and student-centered learning, I realized that, at its core, special education has a lot in common with the progressive pedagogies and theories touted during EdTech. Proponents of 21st Century Skills have identified sets of skills, like collaboration, self-management and leadership, that will prepare students for future workplaces (Trilling and Fadel, 2009). The goal of IEPs is for student with special needs to develop self-management skills with the end goal of independence and full inclusion.

The goals of 21st Century teaching and special education share commonalities that I noticed over the course of the EdTech program, mainly that they focus on student-centered action. Learners take on more responsibility for their learning, and teachers work to provide engaging learning experiences that exercise a diverse set of skills.

Looking to the future, my influences, such as Universal Design, Constructivism, student-centered learning, 21st Century skills, communities of practice and the changing role of the teacher to facilitator, are leading to a culmination point. Personalized learning is the future of my practice--and I'm not alone.

In the most recent K-12 Edition of the New Horizon Report, education specialists noted personalized learning as a "Wicked Challenge" for the future of education in the United States (Becker, Freeman, Hall, Cummins, & Yuhnke, 2016). According to the report, there is not a current consensus on the definition and implementation of personalized learning, so they recommend applying for grants and participating in pilot programs as the next steps for

educators. Lucky for me, my international school allows me a significant amount of control and experimentation in my classroom. This year, the school celebrated a new school building where I have created an open learning space for my middle school. We have a long way to go, but we have community buy-in and teachers willing to take risks and further develop their practice.

For my part, I am excited to integrate technology-supported, personalized learning at my current school. Working at a small, international school with a 1-on-1 laptop program and a commitment to student-centered learning is a huge advantage for an educator, like me, who is interested in innovation.



The open-space classroom at Deutsche Schule Kobe/European School. This room houses grades 6 to 8 of the new middle school program. Find more details at the middle school website (mydeskobe.org).

Ending Thoughts

Development is a dirty job. It means making choices, taking risks and accepting failures. EdTech is a program designed for the learner willing to take on those challenges. It upends preconceptions, pushes for action and awards effort. I had my share of obstacles in taking on the Masters of Educational Technology (MET) degree, and I feel that my investment has been well spent. I will leave the EdTech program a stronger teacher and a more resilient person.

At its core, the EdTech program prepares educators for the process of technology development, and it involves more than learning about specific tools or software. Technology skill development is secondary to the deeper, process-based learning. Instructional design, research and evaluation are three key areas of action that I found myself cycling through in all of the courses. Reflecting on how my mindset has changed since I began the program, I find myself better able to tackle large, long-term projects and develop proposals for piloting new programs for learning. Without the processes I learned in EdTech, I would not have been as successful as I have been in my professional endeavours.

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