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improve learning and teaching in Washington State.

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Message from the Editor
by Doreen Keller

As you read the articles in this edition of *Curriculum in Context*, I hope you are inspired to conduct further investigation, challenge old mindsets, apply new approaches, and get involved in district programs that champion innovative practice. This spring’s journal boosts seven articles that challenge us, equip us, engage us, and encourage us to dream about how we can continue to innovate in Washington State schools. Here is a preview:

- In her piece, Kelly Niccolls argues that three key processes must happen in order for innovation to be sustained: we must rethink what we mean by school; reimagine roles, curriculum, relationships, and expertise within school; and reckon with the past, building more accessible and sustainable futures for all students. In her unpacking of these three conditions she offers a description of 12 model programs from across the nation as examples from which we can learn.
- Lisa Mattson-Coleman and Molly Johnson illustrate the highly personalized and community-minded approach of Spokane Public School’s On Track Academy (OTA). The conception of this school came as one possible answer to a disturbing district-wide dropout trend. Individualized learning plans, team teaching/advising, student choice, and a family environment serve as foundational pieces of the OTA experience.
- Adam Kulaas, Director of Design at Getting Smart (www.gettingsmart.com), offers a valuable primer behind the how and why of implementing Design Thinking in today’s classrooms. He notes, “We are at a beautiful crossroad in the evolution of education that lies at the intersection of necessity and innovation. With advancements in technology and the impact it provides in accessing both information and relationships, we are ripe for emphasis on Design Thinking as a thoughtful addition to our learning systems.”
- Kathryn Picanco offers a discussion of how inquiry and project-based learning can be thoughtfully applied through 20% Time and Genius Hour frameworks. Examples of increased student engagement and more meaningful and relevant learning are shared.
- Katie Taylor, in her article, “Teacher Leadership: Growing Capacity for Innovation Within and Beyond the Classroom” explores how a teacher leadership academy can impact teacher learning on a broad scale and support building and district-wide innovation. Her experience in Tacoma Schools to develop teacher leadership capacity and her previous work as a Teaching Ambassador Fellow with the US Department of Education contribute inspiring ideas to this issue.
- Phill Schmitt makes a compelling argument for the power of STEM education for all. He challenges us to conceive of the who, what, and how of STEM education in 2018 while also advocating for interdisciplinary STEM as “intervention” for students who have fallen behind.
- Lydia Booker’s tribute to her mentor teacher describes how innovative teaching in the elementary classroom can be rooted in opportunities for student independence, development of strategies for self-regulation, and a solid grounding in knowing our students as humans and learners.

The theme of our next journal will focus on school climate and safety. Some related topics under this theme that may contribute to the conversation include:

- School discipline policies and practices
- Emergency response policies and practices
- Restorative justice practices
- Education on bullying and prevention
- Systematic approaches to violence prevention
- Threat analysis
- Responsive approaches to students in crisis
- Community and school-based support systems for students and school personnel
- Professional development related to school climate and safety

Potential articles submitted for the *Learn* section should be a current book review between 500 and 750 words and should include the APA reference for the book. Manuscripts for the *Teach and Lead* sections should be between 850 and 2500 words, focus on either the classroom (i.e., teacher) perspective or the leadership perspective, and include citations written in APA format. Please submit questions or articles for consideration by September 15, 2018 to: Dr. Kathryn Picanco (kpicanco@whitworth.edu)

Doreen Keller, Ed.D., is an assistant professor and the secondary coordinator of the Master in Teaching program at Whitworth University. She joined the Whitworth faculty in 2013. Her areas of specialization include best practices in teacher education, especially classroom management and cultural responsive teaching. Her research interests include place-based education and teacher-candidate edTPA preparedness.
It is 2018 yet we continue to hear the phrase, “21st century skills” as if it is the future of learning. We have arrived into the 21st century and can no longer just talk about these skills but must embrace innovative ways to engage our students in deep learning and understanding. Critical thinking, problem solving, communication, collaboration, creativity, and innovation have been referred to as the skills, abilities, and dispositions that will prepare our students for a society and workplace that is rapidly changing. Our students must be prepared to be flexible and adaptable in different roles and diverse career fields. This issue of *Curriculum in Context* focuses on innovative approaches to learning, and educators will read about engaging strategies and approaches being used in schools and districts across the state of Washington.

When I think about how to build a culture that embraces innovation and change, there are certain conditions that, in my experience, should exist for a system to move forward.

**Embrace Learning**

It is not enough to say that we taught content. The focus must be on learning. The adults who work with students must also be learners. Educators understand how students learn best and which strategies yield deep learning. Today, access to information is instant for both teachers and students, which has created a society that evolves faster than it ever did before. As educators, we must adapt to this influx of information, and we need to be open to trying new things. Embracing our role as lead learners is the first condition that lays the foundation for building a culture of growth.

**Embrace Collaboration**

Teaching and learning is tough work, and way too tough to do alone. Collaboration among colleagues can certainly become contagious. Educators working together, solving problems, discovering new ideas, exploring new approaches, and planning lessons makes the work more exciting and ultimately more effective for students. Embracing collaboration starts with making time to come together to explore and learn through book studies, webinars, and professional articles. Collaboration should also include student voice. Educators should bring students together in focus groups to listen as they share innovative approaches to teaching that work best for their learning styles. Collaborators become creators, which can inspire non-traditional approaches to teaching.

**Embrace Engagement**

Models of learning can take many shapes from blended to personalized to inquiry-based to problem-based. These are all examples of engaging learning models that excite students and create an environment in which active learning occurs. At the end of the day, the essential element is for students who are truly engaged to find joy in learning and retain it for future application. The traditional approach of “teacher as the deliverer of content in a one-size-fits-all model” has lost its luster. Small groups of students engaged in discourse while using technology to accelerate their learning is quickly becoming the norm in today’s classrooms. The teacher standing in the front of the classroom with students seated in rows as they rest their heads in their hands is quickly becoming the antiquated model.

Buckminster Fuller, famous architect and inventor, writes, “You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.” It is my hope that as you read this edition of *Curriculum in Context*, you will discover some new ideas that will encourage and entice you to challenge and rethink your existing models.
The innovative learning movement is gaining traction in US education. To date innovation for the most part has been conducted on the margins of US education work. With a recent expansion into the mainstream of more communities, districts, and schools, there is a great deal of information, collaboration, and possibility ahead for educators. If educators are to be working towards innovative schools, three key processes must happen: we must rethink what we mean by “school” and how a system functions to support “school”; we must reimagine roles, curriculum, relationships, and expertise within school; and we must reckon with the past to build a sustainable and innovative future for all student learning. This innovative movement is providing a variety of approaches, organizational structures, and learning experiences for students and communities. With the integrity of innovation being student-centered, community-based, and future-forward, the implications for change in the education system are significant and worthy, to ensure the best for all our students.

Rethinking

In America we operate within an industrialized education model. Our buildings, systems, and finances are established to create a machine of learning—set ages, grades, curriculum, classrooms, and roles. There are organizational charts that model a factory function: hierarchy among adults and compliance from students. Students arrive around the age of five, and the next 13 years of their learning within a public school building are mapped out with rules, regulations, and values decided for them. How that system is designed differs across communities with clear differences impacted by class, political power dynamics, and topography. Most school year calendars are still running on the harvest calendar.

When innovative models try to enter the very rigid and well-established US system of schooling, they encounter many obstacles. One key obstacle is that innovative models are trying to change or operate differently within a system that the people they are working with successfully navigated and value. Innovators are asking a person or community who thrived and dedicated their lives/work to the dominant way of learning to support a different way of learning. That ask brings questions, concerns, fear, and sometimes resentment. Especially in response to a generation of “reform” efforts that have in most cases not produced promised outcomes.

The education system is very good at working towards keeping itself intact. Innovators cannot work within the confines of a permeating century-old system—the factory model is the antithesis of innovation. Therefore, innovative schools and districts must rethink the system function at every level. To rethink the system requires a great deal of effort and time. It requires people to be open to change and capable of believing in the value of the rethinking process. It requires a plan and outcomes that would not allow the old system to finesse its way back into the work. It requires an unlearning of the past in a way that is careful not to call up a sense of nostalgia.

Innovators must build a competency and empowerment within the rethinking process that holds and values the change participants and generates energy and excitement for what will be. Examples of rethinking in schools and systems are:

- **Big Picture Learning**, an organization of schools that is rethinking the design of classes and credits by putting students in the driver seat and creating learning plans and experiences with the help of an advisor for four years (www.bigpicture.org).
- **City as School (CAS)**, NYC, a school that is rethinking expertise by removing the need for classroom teachers to be the sole source of this expertise; instead, CAS students learn by doing, especially through their internships (www.cityas.org).
- **Harlem Children’s Zone**, an organization that is rethinking the use of systems to provide wraparound supports for a community to raise a child with best circumstances to learn (https://hcz.org).
- **Summit Public Schools**, a charter network that is rethinking personalized learning for students by blending technology, rigorous curriculum, and self-directed learning to support student achievement (www.summitps.org).

Reimagining

Once the ability to rethink what a school system function can be, it is important to reimagine the details and components within that system. Flexibility is necessary. Innovative schools must be adaptive spaces, continuously learning and developing for an ever-changing world. Innovative schools must recognize that the idea of expertise has shifted—there is no longer a dependency on adults or textbook resources for knowledge. The dependency our youth have is now on skills, ways of being, and core values to help them most competently navigate their overwhelming access to information. This reimagining will be an ongoing cycle, always challenging the rigid power systems innovative schools intended to disrupt and end. Elements that would need to be flexible would be physical spaces—buildings must be constructed and furnished to be adaptable for the unknown. Roles would need to be reimagined—What is a teacher? What is a student? What is a leader? What is a course? What is quality assessment? What is core learning? In addition to reimagining the outcomes, innovative schools must reimage the community of thinkers. Who do we need at the table? When? Why? How can we reimagine decision making processes and voices? How do we reimagine the collaboration of learning communities without standardizing learning?

We need to reimagine central operations and funding for innovative and flexible learning. School and central office collaboration must be reimagined to best support community needs in the immediate, soon-to-be, and long-term timeline within the confines of larger legislative and political systems that are limited in scope of time and process. The survival of innovative schooling expansion is dependent on this capacity. Perhaps one reason why innovative schools and learning
organizations remain at the edge of education work is because they have not rethought and reimagined the core systems within which they operate and thrive. Examples of schools and organizations tackling the reimagining process are:

- **New Tech Network**, an organization that is partnering with K-12 public schools and districts to reimagine teaching and learning with a project-based learning approach. They are expansive with support services, and they are leading intentional learning around equity, innovative leadership, and systems change (https://newtechnetwork.org).
- **Expeditionary Learning (EL)**, a school network that focuses on key principles of student character and leadership, high quality work, and real world learning (https://eleeducation.org).
- **Manor New Tech Middle School**, a school in Manor, TX that is reimaging school design with a fluid building that serves as an instructional resource for student-centered, project-based learning. It completely reimagines the role of a facility to be a partner in learning (https://mntms.manorisd.net).
- **Getting Smart**, an organization that bridges innovative education information and expertise across educators and community partners (www.gettingsmart.com).

**Reckoning**

There are deeply ingrained inequalities within American education, and innovation is used to both perpetuate those inequalities and end inequalities. Therefore, systemic reckoning must occur for innovation to be an asset in the fight for access and achievement. Innovation must support all students—it is intended to better support students and bridge gaps established in a traditional school model.

This has significant implications for instruction. How can we better develop teachers who mostly learned well in a traditional model to enter teaching competently within an innovative context that is not intended to perpetuate the cultural dominance of the previous century? Departments of Education must reckon with its system structures that certify and prepare teachers in a compartmentalized way to rethink and reimagine how to provide curriculum and experience for pre-service teachers to competently enter an innovative teaching space.

Reckoning requires an intentional learning about the inequalities that persist in traditional education so that innovative shifts do not repeat the same problem in a different way. This requires reckoning in policy places, district offices, and school buildings. Resolution and repair work must be aligned to support new ways to lead and experience learning in America so that all children thrive. Examples of organizations engaging in reckoning systemic inequality are:

- **Puget Sound Consortium for School Innovation**, a program that supports the development of innovative school leaders that study and develop capacity in school leadership with a focus on equity, innovation, and the future of teaching and learning (http://pscisi.org).
- **Deeper Learning Equity Fellowship**, a Big Picture Learning project that works with school and system leaders to improve their practice to expand deeper learning for all students (https://www.equityfellows.org/).
- **High Tech High**, a charter organization based in Southern California that hosts the Deeper Learning conference and has a School of Education that is preparing innovative school leaders to expand innovation in schools and districts (https://www.hightech-high.org/).
- **Envision Schools**, a small charter network from Northern California that has had great success in supporting learners who have been traditionally marginalized access four-year colleges with their assessment process. They also work with schools and districts on innovative assessments to measure student learning and success (https://envisionschools.org/).

When schools, districts, and organizations participate in the rethinking, reimagining, and reckoning process, the possibilities for student learning are endless. Communities can work together toward the future of learning. They can collectively build a new infrastructure for education by incorporating important data and resources, acknowledging needs for community improvement, and believing in the capacity of all students and those who teach them. There are communities of practice and leaders in this work that are eager to welcome more into this innovative movement. We must lead and engage in this process for sustainable change and continued learning to best serve our students and thus, the global ecosystem, to thrive in the future.

**School Innovator Websites**

- Big Picture Equity Fellows. www.equityfellows.org
- Big Picture Learning. www.bigpicture.org
- City as School. https://www.cityas.org
- Envision Schools. https://envisionschools.org
- Expeditionary Learning. https://eleeducation.org
- Getting Smart-Innovations in Learning. www.gettingsmart.com
- Harlem Children’s Zone. https://hcz.org
- High Tech High. www.hightechhigh.org
- Summit Public Schools. https://www.summitps.org

**Kelly Niccolls**

Kelly Niccolls is an Assistant Principal at Mt Tahoma High School in Tacoma, WA. Kelly is leading in the tragic gap of what education work currently is and what it can be to best serve all students. She honors the abundance of possibility within the teachers and students she serves to reimagine teaching and learning. Driven by the relentless belief in the possible social justice of education systems, Kelly seeks the light in students and communities to cultivate schools to be the change agents we need in the world.
Abbie wasn’t successful at her comprehensive high school. She quietly moved from class to class. But, at On Track Academy (OTA) in Spokane, she has found a home. She is not just getting by but leading, not just complying with learning tasks but asking high-level questions, collaborating with others and connecting in the community. She is on fire!

A decade ago the numbers of students “leaving” Spokane Public Schools prompted action from secondary program leaders. The data were clear and stories from our students and families even clearer. The One Size Fits All model was not meeting the needs of all our kids—a group of students was disappearing from our classrooms. We were left asking questions: How can students meet high academic standards when they do not believe in their ability to do so? If there is a disconnect between agency and confidence, how can motivation exist? What is the blueprint a student envisions to build her future? If the learning tasks presented hold little or no value at the outset, how can a student engage? How can a student see the light at the end of the tunnel and recognize its relevance for his future?

Enter Disruptive Innovation, Harvard Business School Dr. Clayton Christensen’s description of the process by which a product or service initially takes root (Christensen, Raynor, & McDonald, 2015). First, in simple applications at the bottom of the market—typically being less expensive and more accessible, and then relentlessly moving up the market, eventually displacing established competitors. Instead of breakthrough technologies that make products better, Christensen’s process emphasizes innovations that make products and services more accessible and affordable, more available to a larger population. Bingo! The stars aligned. We saw a need for education accessible and affordable, more available to a larger population.

By innovatively leveraging technology opportunities through online learning to create a different school design, each OTA student could Create What’s Next, a phrase that became our On Track Academy motto, for her/his future.

**What Personalized Learning at OTA Looks Like**

1. Curriculum is created around a clear, comprehensive set of standards for the knowledge, skills, behaviors, and characteristics each student needs in order to be a self-directed learner ready for college and life success.
2. Each student’s progress, grounded in the Written Student Learning Plan (WSLP), is based on a demonstration of Common Core State Standards (CCSS) and Next Generation Science Standards (NGSS) competency.
3. Each student demonstrates ownership of his/her learning through goal setting, specific paced plans to reach goals, acquisition of knowledge and enduring understandings, application of learning, and reflection that shows self-awareness and growth.
4. Technology is accessed for learning; Blackboard and Summit Learning platforms support digital delivery in a blended learning environment where student choice is increased over time, place, path, and/or pace of learning.
5. Demonstration of learning and competency falls into four categories that predict successful transition to career and college: Think, Know, Act, Go (Conley, 2008; 2010) Bill Daggett, Chairman of International Center for Leadership in Education, challenges education to address relationships, relevance, and rigor for ALL students. On Track Academy wove this challenge into our initial design and continues to iterate through continuous improvement a decade later.

**On Track Academy Restores with Relationships**

Dr. Chris Blodgett of WSU’s CLEAR Trauma Center, in his evaluation of the Readiness to Learn program, found that relationship is evidence-based practice. The conscientious, explicit, and judicious use of current best evidence in making decisions about the care of the individual provides the foundation for day-to-day teaching moves (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). This practice creates a climate of care at On Track Academy. Relationships are at the core of our work.

In a review of the literature on the “best companies to work for” those that make the top of the list usually offer something more than a strong financial base for their employees. Described as “humane,” with a climate that provides support, employees are encouraged to innovate, advocate for self, and “connect to the goals, mission, and values of the organization.” These characteristics are warranted in schools. On Track Academy embraces these humane values and applies them to staff, students, and the families we serve. Twice a year at student-led exhibitions, families share the difference that our school makes in not only their student’s lives but in the lives of their families. “She likes school! I no longer have to fight in the morning to get her to school on time. She is often the first one up,” one parent shared.

Students want to be known. They speak of staff being more than teachers, but also friends, coaches, mentors, and guides. Young people long to use their voices and be heard. “We must not underestimate the sheer power of relationship in making our schools more effective” (McNulty & Quaglia, 2007). Is school a good place to be? Do our students maintain a sense of belonging? Are there at least a few adults who are interested in their success and well-being? How safe do our students feel? Are they recognized as individuals?

On Track Academy operationalizes relationship by creating intentional structures. Co-teachers that support STEM and humanities learning lead each classroom. Two teachers in each classroom creates the synergy that supports students socially and emotionally, as well as the opportunity to coach and mentor. Teachers describe their roles in ways that are not content specific. Elbow-to-elbow, all OTA teachers teach kids. On any given day it is visible that teachers are guiding learning in interdisciplinary ways. English teachers dust off math concepts and procedural skills. Science teachers are giving feedback on research papers. Math teachers are deciphering primary sources and marking the text.
On Track Academy Retools with Relevance
We look at content and standards through the lens of individualizations. Students desire alignment of what they are learning today while they Create Their What’s Next. Content knowledge is ubiquitous. Information is merely a swipe of the thumb away for our digital innate youth. Empowering learners to drive their learning plan in ways that offers deeper learning, not just coverage, equates to relevance and commensurate engagement. Real world issues that warrant project-based learning develop in concert with students and are executed throughout the year. For example, five students produced the “Science Hour” for KYRS, a non-profit, non-commercial, full-power community radio station in Spokane, after researching topics like nuclear energy, travelling to the nuclear plant at WSU and interviewing experts in the field.

On Track Academy Renovates with Rigor
“Playlists” customize learning to align curricular choices with skill development and mastery attainment. “In essence, students need to know what to do when they do not know what to do” (McNulty & Quaglia, 2007). Based on a personal and academic summary of their strengths, interests, dreams, and needs, renovation of student learning takes place to suit not who they are but who they will become. Hannah loves animals. Her dream is to be a veterinary technician. Having completed all electives by the start of her senior year, she was able to intern with a local vet. Accepted into the only program in Washington State, Yakima Valley Community College, which is a very competitive program, Hannah is on her way. Through each customized plan, services are brokered by advisors—aided by our structure—to provide high engagement and achievement, creating what’s next for each student.

Community Impact
In 2008 only six of 10 students graduated from Spokane Public Schools. On Track Academy was part of the systemic collaboration to increase the graduation rate, currently 85.6%. “By helping students get a diploma, they are helping each of those individuals live longer, healthier lives,” said Marjorie Paloma, Robert Wood Johnson Foundation director (Lawrence-Turner, 2014). On Track Academy students are enrolling in college, trade programs, and universities. Graduates are joining the military and contributing to the local economy as part of the work force and as citizens. More importantly, On Track Academy students care. They are grateful for the chance to earn their diploma and want to express their appreciation by giving back. OTA leadership students won the Chase Youth Award for Community involvement this March. Students mentor elementary students at several area schools. They donate blood, make blankets for the homeless and foster youth, and they join with staff to create a compassionate community.

At On Track Academy, students think about whom they want to become as often as they think about what they want to be. And we co-create a plan for both.

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“The best way to predict your future is to create it.” – Abraham Lincoln

The future of learning lies in the hands of today’s students and the educators who prepare them to create it. It is filled with advancements in technology and approaches that have evolved over decades of learning, with a solidified target of student growth. The landscape has come to life with the introduction and emphasis of whole child movements and fueled capacity for a mindset and belief that goes beyond test scores to support the development of each learner’s social, emotional, and academic development. The future of learning cannot be an isolated approach and demands that stakeholders rally around the learning communities as partners in developing a true sense of urgency.

**Breathe, Change is Constant**

Within my earliest memories as a learner, I can recall changes that were delivered as I traveled through my career as a student. Whether it was a remodeled building, new curriculum, or bell schedule, the constant in each scenario was change. As I transitioned into my teaching career, the volume of change grew exponentially. My vantage point changed and in many ways was much more overwhelming. While my beginnings as a teacher delivered moments that teetered on combustion, I was mentored and taught to “breathe life in and draw knowledge out.” At the time I believed this to be a mantra for student learning but quickly recognized that it was a much bigger combination of words. Through ownership, it was an internal reminder—maybe better described as a beacon—that grounded the absolute power of new learning. Armed with this certainty and the infant understanding of a fail forward mindset (Maxwell, 2007), I quickly realized that many of these changes did not need to be “done to me,” but instead served as an opportunity for the students and community that I served. When discussing innovations in teaching for learning, we must open our mind to possibility and recognize that lifelong learning is exactly that, an evolution of change.

**Dream**

Over the course of my lifetime I have been called many things, my favorite being some iteration of dreamer. I was the kid who would sit in class armed with whatever writing utensil I could find in the bottom of my backpack and most often a crumpled piece of paper that somehow found its way to my desk. I would listen, doodling my notes. Often labeled as disorganized, I had developed a system that worked for me, and by the standards of the time, earned good marks. While unknown at the time, I was preparing myself with compassion and empathy, that, as I will unpack, is a non-negotiable in designing innovations in learning.

**Design**

In 2010, I read Tim Brown’s *Change by Design* (2009). I have subsequently re-read and loaned it out—never to be returned—on at least two occasions. As IDEO’s CEO and president, Brown delivered my first formal introduction to Design Thinking. While it is not specifically written to educators, every word jumps off the page in delivering a human-centered framework for the potential impact Design Thinking could provide in what is missing within our schools.
It explores the culture of innovation with relevance to the learning communities that we serve and is rooted in empathy, identified as “perhaps the most important distinction between academic and design thinking” (Brown, 2009, p. 49). It is this piece that resonates and brings life to the growing intentional-ity around educating the whole child, whole learner, and whole community. As we personalize learner experience to connect meaning beyond the content and classroom and recognize that “it takes a village,” Design Thinking demands connections and sets the stage for “bridges” to be built. Brown’s mission of Design Thinking challenges us “to translate observations into insights and insights into products and services that will improve lives” (Brown, 2009, p. 49). While students are not products, when we peel back the meaning behind the mission, our goal must be to reveal and translate each student’s insights to improve lives.

We are at a beautiful crossroad in the evolution of education that lies at the intersection of necessity and innovation. With advancements in technology and the impact it provides in accessing both information and relationships, we are ripe for emphasis on Design Thinking as a thoughtful addition to our learning systems.

A leading source of learning and inspiration in the world of Design Thinking is the Stanford d.school (https://d-school.stanford.edu/). Their framework offers a wonderful starting point for educators to begin processing and preparing opportunities to implement Design Thinking into classrooms. It frames an intentional process that provides “flow” and as your knowledge base increases through implementation, delivers opportunities to assess evidence of impact.

As you present the Design Thinking process in your classroom, start with a topic that includes existing knowledge and a focal point that is rooted in connected experiences that students can find confidence in designing. This approach will provide a safe jumping off point for students to share in navigating the process. Start by setting the parameters for the work. It could be, “We are going to improve our school community.” As we travel through the overview of the Design Thinking process, let’s set the stage with a focus on a teacher asking students to use Design Thinking to improve the community that is their classroom.

As we return to the defined mission of Design Thinking and outcome of “improving lives” I would reiterate the importance of students being able to empathize. Providing students with the ability to, as defined by Dictionary.com, “…experience the feelings, thoughts, or attitudes of another” is integral to growth and the absolute foundation for the Design Thinking experience. During this phase of the process, students are on a mission of understanding without judgment. It is an information-gathering mission that could include interviews and should be motivated by inquiry.

Student comprehension and ownership of empathy takes time; be confident in looking at it as you would all new learning and find patience in supporting students as they evolve.

**Define**

Now that students have explored and captured background, insights, and new learning, it is time to define the challenge they will take on. Without question, they will have envisioned countless potential paths and it is during this phase where they will collaboratively synthesize the information to clearly identify and define their potential design target. During the defining stage, students will make decisions that will guide them through the remainder of the process.

**Ideate**

Arguably my favorite part of the Design Thinking process, ideation allows students to unleash their brilliance on a broad scale. This phase is highlighted by a mindset of “the only wrong idea is the one not mentioned” and is the fuel behind the development of potential solutions. As highlighted in the d.school’s process, it is the “yes and” experience in which the design team can explore everything that comes to mind. There is a shift that occurs during this phase that moves the team and process from potential problems or barriers identified to solutions that will result in a prototype.

**Prototype**

The prototyping phase resides in a space that resembles the process of building a puzzle. It is grounded in a fail forward mindset and should not be polished. It could include storyboards, mock-ups, or first attempts at the construction of a product. It is a combination of all the information, barriers, ideas, and potential solutions gathered over the course of the journey, and it is the final phase in preparing to test.

Having traveled through the Design Thinking process with intentionality, your student designers are ready to launch. This phase of the design process provides an opportunity to celebrate what works and does not work and will be the first of what will end up being much iteration. Be confident in the reflections that the tests reveal and find peace in knowing that solution design is a living process that does not conclude until you decide to stop iterating.

**The Future is Now**

The greatest gift of Design Thinking is its ability to enhance current best practices in personalizing each student’s ability to create a path to student-owned solutions. It provides distributed value in voice, background, experience, and views on topics and desired outcomes through the eyes of each student.

Our students are the future. In 2015, world leaders of the United Nations convened and established 17 global goals with a targeted deadline of 2030. They are broad in scope and beautifully illustrated in The Global Goals (https://www.globalgoals.org/) graphic below, with emphasis on a holistic approach to identifying the various global challenges requiring solutions.
These 17 goals illustrate many similarities to the unpacking of the equation of developing each whole child; the many puzzle pieces that hope to deliver a sustainable future are the same. With Design Thinking, it is within our power to better equip students as they prepare to exceed these goals through the future of learning.

References


Adam Kulaas

Adam Kulaas is the director of design at Getting Smart, located in Federal Way, Washington and previously held positions as principal, assistant principal, teacher and was an ASCD faculty member. He specializes in designing innovative learning experiences to include school models, programs, leadership and learning.

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“How can we create a safe place for skateboarding?” was the simple driving question asked by a group of my middle school students that turned into a year-long project working with the school district and city parks and recreation department to turn their dream into reality. Four boys worked diligently to research different options for materials and locations and also completed a needs assessment. They revised their plan along the way based on feedback and meetings with experts. Finally, when they felt they had the right plan, they presented it to the school board and city council. The result was an official purchase of portable skate park ramps to rotate each month between the school district’s parking lots during the summer. The boys were fully invested in this project and its outcome. While they were given some time in class to work on it, they became so engaged that they were motivated to continue work on the project outside of school. Several standards were addressed in authentic ways throughout the process. Perhaps most importantly, it was student driven and centered with an authentic product developed as well as creativity. An authentic product and presentation of the project adds greater relevancy and helps others learn from and be inspired by peers. The process also fosters greater student engagement, self-reliance, achievement, and higher attendance rates (BIE, 2015; Juliani, 2015).

While there are several ways inquiry-based instruction can be implemented in the classroom, two prevalent approaches we see in schools today are 20% Time and its counterpart, Genius Hour.

### Defining Elements

Twenty-percent Time refers to setting that amount of time aside in the classroom for students to explore interests and construct a product. It is a time for students to actively create their learning instead of being a passive receiver of knowledge, driven by the desire to engage in something other than an evaluated requirement. This idea, made famous by Google’s implementation of the practice for employees, is based off Montessori pedagogy. Google founders Sergey Brin and Larry Page both attended Montessori schools and credit their success to the educational method. At Google, employees are given 20% of their work week to spend on projects of choice. This has led to many of its most effective innovations such as Gmail, Google News, and Google Earth. The Montessori principles of interest-based exploration, freedom with responsibility, self-reliance, self-evaluation, and an extended uninterrupted work time are at the heart of the model (Juliani, 2015).

These components establish an environment of optimal experience where a person’s full attention and quality of experience are completely connected (Rathunde, 2001, 2014). The extended work period and time to focus on interests is also critical for personal development and achieving a state of flow, described by psychologist Csikszentmihalyi as “moments when a person is fully concentrated on a task at hand, relatively oblivious to the passage of time, and feeling clear about what needs to be done from one moment to next” (Rathunde, 2001, p.14). This idea comes alive in the classroom when teachers set aside time for students to explore their interests and passions. It also replicates the project-based work environment students will be in as adults that emphasizes the 21st Century Learning Skills of creativity, critical thinking, collaboration and communication. The benefits are not just for students. Teachers also find the instructional approach more gratifying and rewarding than traditional methods (Strobel & Barneveld, 2009).

While there is freedom of exploration, Genius Hour and 20% Time projects have intentionally planned elements and a process to facilitate learning. The Genius Hour and 20% Time structure is comprised of: (a) a driving question; (b) research conducted to answer the question; (c) a product derived from the research; (d) presentation of the product created; and (e) evaluation of the work completed from different perspectives (Juliani, 2015; Krebs and Zvi, 2016). These parallel many of the components of high quality project-based learning opportunities. The Buck Institute for Education (BIE) defines project-based learning as when “students work on a project over an extended period of time – from a week up to a semester – that engages them in solving a real-world problem or answering a complex question. Students demonstrate their knowledge and skills by developing a public product or presentation for a real audience” (n.d., para.1).
BIE further defines the essential project design elements as: (a) key knowledge, understanding, and success skills are established as a foundation; (b) a challenging problem and question are created to frame the project; (c) students engage in sustained inquiry; (d) authenticity of product and project are featured to connect students with real-world applications; (e) student voice and choice is reflected in the process; (f) ongoing reflection by students and teachers; (g) critique and revision are utilized to improve projects; and (h) a public product is created and shared (BIE, 2015; BIE, n.d.). Genius Hour and 20% Time projects stand apart in their emphasis on a student-created driving question and research process to facilitate the creation of a product to share with others.

Implementing the elements of quality projects to ensure success is also a process facilitated by the teacher. A framework for Design Thinking (Brown, 2009) to assist students in the development of Genius Hour projects is the LAUNCH Cycle, developed by John Spencer (2017) in collaboration with A.J. Juliani. The steps are:

1. Look, listen, and learn. This involves encouraging a sense of wonder and curiosity while students seek to determine a topic to explore in the world around them.
2. Ask tons of questions. This is the beginning of the inquiry stage, emphasizing questions to explore the selected topic.
3. Understand the process or problem. Students research the question to determine possible solutions with a range of research methods.
4. Navigate ideas. Students discuss the type of project they will create to share their research; they identify their audience and solidify group member roles.
5. Create a prototype. This is the first draft of the final product.
6. Highlight and fix. Students put the finishing touches on their prototypes based on self-reflection and as a result of soliciting feedback in a variety of ways from their peers.
7. The launch. The products are shared with the determined audience and celebrated. It is also encouraged that the creative process be shared publicly through a presentation, exhibition, Maker Fair, or other means.

Embracing failure as a necessary part of the learning process is also an essential component of successful projects. We learn through mistakes and each step back or to the side provides an opportunity for a different perspective on a problem with potential solutions for moving forward. A classroom community that supports exploration, failure, and self-reflection as a natural and necessary part of the learning process is critical for the projects and process to be successful and for valuable life-long learning skills to be reinforced (Krebs & Zvi, 2016).

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Genius Hour in Action

There are a number of ways in which teachers are making time for students to participate in 20% Time and Genius Hour projects. Projects can easily be aligned to Common Core State Standards in research, writing, reading, and speaking and listening. They can also be aligned to the different content areas students select to explore to help justify the time set aside in a standards-based classroom. The potential for high-quality, interdisciplinary projects to be created while allowing students to explore areas of interest and create innovative solutions to problems is worth the time for the proven positive results. The following examples illustrate what Genius Hour can look like in action.

Middle School

The middle school students in Erin Schmidt and Krista Rollins’ classes eagerly embraced their Genius Hour projects tied to the interdisciplinary unit theme of Revolution. Genius Hour took place once a week on Fridays. Students first determined what they were curious about and wanted to study further that was revolutionary. The topics ranged greatly, from determining how to help animals not be given to animal shelters to the study of how music is used to influence emotions in movies. In the case of the student studying animal shelters, they then researched animal shelter policies and records, interviewed personnel, and conducted traditional research to further define key issues and seek possible solutions. It was determined that one problematic issue to be addressed was helping families keep their beloved pets through times of transition or difficulty. The solution created was a program to foster animals for families requesting the service, thus keeping the animals from being placed in the shelter. This model was shared with the class in a Genius Hour presentation for peers, teachers, and other adults to attend. There is also the potential for the project to be implemented in the community for increased impact.

Elementary Grades

Joy Derrick’s second grade classroom embarked on Genius Hour in an interdisciplinary unit for science, writing, and art. Thirty minutes three days a week was set aside for students to work on the projects. Students were asked to select a topic related to insects to research and eventually create a “bug catcher” utilizing the information. They first posted inquiries on the class “Wonder Wall” answering the question, “What if you could learn about anything you wanted?” They selected and then researched their question on KidRex, a child-friendly search engine. Daily progress was monitored through exit tickets and checking student work on Seesaw, an online student portfolio. Students then created informational reports about their topic. Finally, they made their bug catcher models based on their research. The project was so successful the class started a new project with the guiding question, “How can we make land more useful for humans and other living things?” Students learned about the Earth’s surface by researching their questions on playgrounds and back yards. They went on to design parks, dog parks, and shelters for homeless people and pets based on the research conducted while working at their own pace. An important aspect of this class’s time was the incorporation of success criteria focused on elements of “grit” (Duckworth, 2016). The success criteria helped students understand and reflect on the expectations for participation and perseverance during a project.

Making time for inquiry-based instruction in the classroom opens the doors of engagement, innovation, and connection in our classrooms. It is time to foster creativity in our classrooms through meaningful and relevant work to ensure students are ready to be the problem solvers of our future. In turn, this will empower students to realize what they are capable of achieving and the positive impact on the greater community they can and will have. Our school culture can develop educational biodiversity one Genius Hour at a time.
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Kathryn Picanco
Kathryn Picanco is an Associate Professor of Education at Whitworth University. Her areas of interest include inquiry-based instruction, gifted education, differentiation, and Montessori.
Teacher Leadership: Growing Capacity for Innovation Within and Beyond the Classroom

by Katie Taylor

A tale of two teachers: Amy was an accomplished teacher at a high-poverty high school who searched for ways to stretch herself beyond her classroom. Not feeling the right fit in administration, she left the school setting in her tenth year, right at the time when recent research by Papay and Kraft would indicate she was a master at her craft (Sawchuk, 2015). Tony was also an earlier-career teacher in search of a change. Seeing no other “next steps” beyond his current assignment of teaching middle school math, Tony pursued administration. Both teachers had numerous opportunities at their building level to be involved through department chair positions, site-based decision-making teams, and district committees. Both sought, and sadly did not find, the kind of leadership that would have taught them the skills to affect change beyond their classroom doors while continuing to teach.

In Washington State we have many “Amy’s” and “Tony’s” who we lose to teaching when they are in their prime (Elfers & Plecki, 2017). Unfortunately, many mid-career teachers do not see opportunities for growth and innovation in their current role, and yet it is their expertise and experience we need to help support and grow new innovations in our building and district systems. Hargreaves and Fullan (2012) in their book Professional Capital describe how professional capital—the combination of the talent of individuals, the collaborative power of a group, and the wisdom and experience to make decisions—can be leveraged to foster innovation. They further make the case for the structures that foster professional capital. But structures alone do not yield change. Just as pushing desks together doesn’t mean students will work as a group, teachers need to be taught the skills and knowledge necessary to access their professional capital. To grow the capacity to affect change in our schools, and to empower and continue engaging teachers in their work as a profession, Tacoma Public Schools has launched a teacher leadership academy. We believe that teacher leadership is not about a particular position or role, but instead is a mindset or stance. Teacher leader “moves” often fall on a continuum and can be a teacher intentionally asking a probing question at the right time, and it could also be a teacher skillfully facilitating district-wide professional development. The constant in these examples is that the teacher leaders:

- Remain teaching students
- Desire to reach students beyond their own classroom
- Want to explore innovation and change

In this, our pilot year, Tacoma Public Schools supports 24 full-time teachers in our teacher leadership academy who represent elementary, middle, and high schools from across the district. They represent a wide range of grade levels and content areas. At the initial summer kickoff to the academy, our current cohort of academy teachers used a self-assessment tool to gauge their current leadership capacity, which then informed the focus of the seven learning sessions offered during the school year.

In Tacoma, we use the CEL 5D+ Instructional Framework to define and guide our vision for effective practice in the classroom. To support a common vision of effective leadership practice outside of the classroom, we use The Center for Strengthening the Teaching Profession’s (CSTP) Teacher Leadership Framework (2009).

The CSTP Framework defines teacher leadership through five essential components, each with their own knowledge, skills and dispositions:
1. Working with adult learners
2. Communication
3. Collaboration
4. Knowledge of content and pedagogy
5. Systems thinking

By developing teacher leadership capacity around these five areas, we strive to reach two goals for our teacher leadership academy. First, we work toward retaining effective teachers. While there are many possible causes for the departure of teachers from the classroom in year five and beyond, a significant point not to be overlooked is that teachers see limited or no opportunity for advancement unless they leave the classroom. In the example of Amy and Tony, both went on to become administrators, with one still serving as a principal and the other having left education after two years in administration. While we certainly need effective administrators, not all teachers who pursue administration are ready to leave the classroom. Offering an opportunity to encourage continued innovation in the classroom and growing while still doing what they love means that classrooms and buildings can continue to draw from the strength and experience these mid-career teachers bring.

A second and critical goal is to amplify and multiply the impact of current initiatives on student learning and create the conditions for future innovation. It is true that teachers occupy a variety of positions, both formal and informal, and paid and not paid, outside of their classrooms. They are union representatives, PLC leaders, department chairs, testing coordinators, liaisons to district committees, and more. However, being in a leadership role is not the same as being a teacher leader.

Teacher leadership supports improvements in both instructional practice and professional collaboration (Elfers & Plecki, 2016). The impact of a trained teacher leader leading the learning is not only apparent in professional learning settings, but is observable in the small moments when teacher leaders apply their skills to enact a shift or build capacity in their colleagues. Consider a routine conversation among colleagues where a teacher shares the challenges of a particular class period, and a teacher leader responds with empathy and support while encouraging further reflection:

Teacher: Is it a full moon or something? My fourth period was really off the rails today.
Teacher Leader: Rough day, huh? Been there. What about it was particularly rough?
Teacher: They came in pretty fired up right from the start. I’m not sure I ever really got them to buckle down and work.
Teacher Leader: So you were challenged to get them to focus. How do you usually gain their attention at the launch of your lesson?
Teacher: Usually they are pretty good at getting right to work on the “do now” I have posted but not today.
Teacher Leader: Huh. I wonder why that didn’t work today. What’s your sense about how sixth period will be? And what might you do to adjust to their energy?
Regardless of the teacher’s response, the depth of their discourse in a short exchange offers the opportunity to improve practice and could seed innovation. What the teacher leader brings to the conversation is not a magic solution or answer. Instead the exchange focuses on an opportunity to grow a colleague’s practice through intentional reflection questioning that moves hallway talk into a learning-focused conversation.

It was a probing question from a colleague on my way out the door for a weekend of grading essays that led to my pursuing further training. My subsequent learning changed how I instructed my students in writing. Despite the bone yard of binders I collected over the years from some incredible professional development, this teacher leadership moment resulted in my receiving summer professional development on effective writing strategies, which in turn resulted in increased engagement from my writing students and higher test scores the following fall. My ability to innovate my instructional practice was the direct result of a teacher leadership “move” on the part of my colleague. If we could increase the likelihood of exchanges like this around a district, we would see a systems shift toward learning-focused conversations and reflective practice that would benefit our students.

The network created by our teacher leadership academy cohort model contributes to growing teacher capacity. In her work on social networks, Kira J. Baker-Doyle supports that teacher networks can positively affect teacher quality (2015). The necessity of having professional culture and communities to create innovation and change is also supported by the work of Hargreaves and Fullan (2012). With technology changing the professional learning landscape we see increased opportunities to innovate our instructional practice in the classroom along with the ability to create new opportunities for collaboration. Teacher leadership can leverage teacher learning beyond individual development and further support building and district-wide innovation.

For teacher leadership to work system-wide, it requires system-wide support. Prior to launching the Tacoma Teacher Leadership Academy, we convened an advisory committee to provide input and guidance to the vision, mission, viability, and work of teacher leadership in our district. The teacher leadership advisory committee is comprised of building and district administrators, instructional coaches, and teachers who ensure that we have system-level representation and perspective as we enact the goals of the teacher leadership academy. Our on-going meetings with the committee ensure there is a feedback loop among teacher leadership and system support.

A commitment to growing teacher leaders requires a financial investment and a willingness for the system to create space for the teacher leaders to be heard. At the close of our first year of the pilot, we are making plans to continue the support of the first cohort. This will come in the form of providing them with resources to enact their learning. At the same time we look forward to admitting a second cohort of teachers to the academy. Our belief is that over time and with continued support, we are building the capacity of our teachers to innovate while continuing to teach. When we create the conditions for innovative thinking in our classrooms, students thrive. This is also true when we create the conditions district-wide for teachers to innovate and thrive.

While there was no such mechanism in place to prevent Amy and Tony’s departure from teaching, this new program represents hope that we can retain our most effective teachers, re-energize them, and amplify the efforts of both the building and district to implement initiatives that yield positive change for students.

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Breaking The Chains: Unleashing The STEM-4-All Movement

by Phill Schmitt

Let’s face it; STEM is a complicated subject to talk about educationally. On the surface, it seems unfathomable that such a simple acronym could cause so much confusion. This is especially perplexing when you consider that half of STEM, math and science, are universally regarded as “core” subjects. Yet, after a decade of talking about STEM and nearly six decades of prioritizing science and math education at the national level, there still isn’t a singular, unanimous definition for it. But is this the problem, the “chains” holding STEM back?

After years of immersing myself in the STEM movement from the regional to the national level, nay is my answer. The major problem in STEM is defining the who, the what, and the how. We must accept that almost every specific industry in the STEM field seeks to define, advocate, and promote a different vision, a vision that is biased and based only on the lens from which that person or industry looks.

Much like President Eisenhower’s warning about the rise and influence of the military industrial complex, it is critical to remember that the industry he warned of was created due to a shortage of “STEM professionals”. Though times have changed, the threat of big industry trying to sway the direction toward their interest because of “necessity” is real. We cannot allow it to cloud our quest in creating well-balanced students who are prepared to tackle any STEM or STEM-related careers (Archer, Osborne, DeWitt, Dillon, Wong, & Willis, 2013).

Interdisciplinary STEM as intervention works. Not only did my students start expressing interest in a variety of STEM-related careers; they got back on track with other peers.

The What: STEM—Don’t We Already Do That?

Even with many states adopting the Next Generation Science Standards (NGSS), educators are finding themselves “meeting the new boss same as the old” (i.e. same old stuff just in a new packaging). This should not come as a surprise because NGSS was explicitly created to serve only as a set of progressing base standards—not dictate curricula, establish ceilings/limits, or intervene in local authority. Given such, it is fair to say that NGSS works, but outcomes are extremely dependent on how the educator interprets and implements it. This key fact cannot be overlooked.

We must also keep our attention on the tacit push to package STEM as a curriculum. While some districts are investing in creating interdisciplinary spaces/classes that liberate the creative process, others are focusing exclusively on narrow- ing specific topics to essentially make it into kits. Authentic STEM cannot be put into a box. Education often needs a manageable curricular path, but if we trade spontaneity and creativity for predictability and fidelity then we will lose ingenuity and legitimacy. This toxic remnant of the “previous generation science standards” is an institutional issue, not a standards issue. Focusing on prepackaged kits, protocols, and out-of-context “best practices” did not work before and will not work now. We need to focus on what is right even if it is hard, not look for what is quick because it is easy.

To get it right, schools and teachers that are looking to create a successful STEM-4-All program need to start by committing to providing all students equal access and instruction in all four STEM fields. Focusing on just one or two of the fields is a philosophy based on the old system that seeks to create a small number of experts, but the future is going to require everyone to have some level of these skills. The power of STEM is that it has roots in all subjects and contents. By broadening the scope and fields of what their program will focus on, they will start to see the three components of change: choice, engagement, and ownership.

It instilled drive, purpose, and vision for them. I watched a kid who had 12 suspensions for throwing things engage in complex math and engineering tasks simply to design a better plane, and he has not been suspended since. I watched a girl who had disengaged for so long in math that she scored below most special education students by the sixth grade. After her experience in STEM class, she jumped more than four grade levels in one year because she wanted to be able to program a computer.

We are behind and must catch up. Traditionally only the smartest, richest, or best behaved students participated in higher-level science and math classes. This may have made sense when advanced technologies were not easily accessible or affordable enough for the average person. But that is not the case today. Technology continues to get cheaper and more widespread; its uses and function are intertwined through almost all aspects of peoples’ lives. According to a recent PEW research study, higher-level degrees for many STEM careers is no longer needed—a whopping one in three STEM workers do not even have a bachelor’s degree (Graf, Fry, & Funk, 2018). It is evident, that in the future, skills, not degrees, will be the benchmark for evaluating professionals.

The Who: STEM-4-All

My journey in the movement began one day as I sat in a team meeting about how to assign students more time in intervention classes because most were not responding to remedial instruction. As I grew bored, I decided to read into one of the student’s cumulative files. Magically the story in the file held the answers, but no one was listening. This student, who had good grades, scored well on tests, and had no major discipline issues until the fourth grade, experienced a sudden drop that continued to decline for years. Data showed that year after year the student kept getting further behind, and the only instructional response each year was more intervention classes. My conclusion was if the student was not responding in the regular class and was not responding to intervention, more of the same probably was not the best solution.

This is when I proposed taking a class of “intervention students” and assigning them to a STEM class. The conditions were that it would only be called STEM—no one would call it intervention—and we would address the exact same ideas, concepts, and standards as other classes. Intervention ought to be a methodology to help lift those who are behind, not label them in a way that will divide and deter. Researchers at King’s College of London, through a recent five-year study, concluded that underrepresented students who do not express STEM aspirations by age 10 have almost no likelihood of developing or pursuing any STEM or STEM-related careers (Archer, Osborne, DeWitt, Dillon, Wong, & Willis, 2013).

Interdisciplinary STEM as intervention works. Not only did my students start expressing interest in a variety of STEM-related careers; they got back on track with other peers.
The other necessary commitment is prioritizing skills over content knowledge. This is not to say that knowledge is not important (as STEM is not a spectator sport). There will still be the need for content-area experts, but that should not be the base or focus for the whole system. We must replace the idea of “trickle-down education” with a “grassroots” one. By focusing on a system that allows all students to develop skills in creative and interdisciplinary STEM-and-project-based-learning environments, we will create a catalyst for increasing agency, rigor, and relevancy for entire schools.

The How

I change lives by using STEM for everyone (from gifted to intervention). Often people give me a perplexed look when they hear that. It is not an issue of content; it is a mindset. The STEM world is the world that students already live in—we just need to know how to tap into and harness it. Recently I led a training at a national technology conference about STEM-4-All, when during a break a pair of older teachers hesitantly came up and asked, “Isn’t this like some of the stuff we used to do?” As I sat with them and processed through their question, it became clear that they always knew that teaching similar things (like math in woodshop, puzzles in science, and maps in social studies) were highly effective but couldn’t remember why they stopped. The sad truth of what happened is they conformed to abandoning those types of activities as national narratives and educational focus shifted over the past 30 years.

The fact is that woodshop, home economics, industrial arts, and logic classes all were valid and important to long-term skill development. Think for a second—how did the people who took us to the moon get educated in fields that didn’t exist yet? How were the first computers programmed when there wasn’t even computer science yet? The heart of STEM is about the ability to problem solve, use logic, create, destroy, persevere, and make tangible outcomes.

The hardest part about shifting to an authentic STEM-and-project-based class is that not only does it require us to break the chains of what has been “normal”—it also forces us to accept that it is not the subject that matters, it is the interdisciplinary skills and processes that count. My students’ connections with and interest in various subjects is noticeable and getting stronger with each project. By allowing the students to embrace and engage in STEM projects, their learning becomes real and relevant for all. Creating agency, rigor, and relevancy works—let STEM guide your path.

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Innovative—introducing new ideas; original and creative in thinking. Reflecting on this definition led me to thinking about Cheryl, my mentor teacher. Cheryl changed the trajectory of my teaching career in myriad ways. I would not be the teacher (or person) I am without her guidance. As I make decisions in my classroom, I often hear her voice in my head. I call these voices Cheryl-isms. Two particular Cheryl-isms are at the core of my beliefs around innovative teaching and learning: “Never do anything for a child that they can do for themselves,” and “Quality teaching is really just about knowing your kids.”

Innovative Independence
When setting up my classroom in August each year, I work to purposefully structure my room in ways that allow students opportunities to be independent. All manipulatives and student materials are out and accessible. Kids have classroom jobs for which they apply. I have a binder with job descriptions and weekly salary information. If they would like a job, they fill out an application listing the job name and why they believe they would be the best candidate. They are paid at the end of each week, provided they have completed their job, with Booker Bucks. Any purchases made in our classroom store are completed with these funds. Items found in our store are conceptualized each year with my group of students—this year students can buy the chance to take off their shoes in the classroom, 10 minutes of free computer time, the privilege of bringing a stuffed friend to class, or lunch with the teacher among other things. This money management system allows my students to take ownership of our classroom while also helping them to practice real world skills of working for others, applying for a job, earning a salary, and managing funds. Though they are only seven/eight years old, many enjoy completing jobs (some enjoy perpetual vacation), and they take on a sense of ownership in our classroom as a result.

Innovative Self-regulation
A missing piece of my practice in helping kids develop independence in social/emotional areas is being filled in with training and guidance at my current school. We have a school wide common language around “the brain in the hand” (Siegel, 2010) and have hand gestures and colors (green, yellow, red) to accompany our states of thinking brain, about to flip, and flipped. My kids create our class constitution as well as our classroom management system. The system allows my students to take ownership of our classroom while also helping them to practice real world skills of working for others, applying for a job, earning a salary, and managing funds. Though they are only seven/eight years old, many enjoy completing jobs (some enjoy perpetual vacation), and they take on a sense of ownership in our classroom as a result.

Innovative Instruction Rooted in Relationship
At the beginning of each school year, I send home a survey with my students’ families to gather information as a way to begin getting to know my kids as people. I have students complete All About Me books, spend a week as our class star, and participate in various other community building games that allow us to learn about each other. When I begin to teach students about the purpose, structure, and expectations of class workshops I spend time with each student individually and ask them a series of questions to learn more about them as readers and writers. All that I gather about them begins to weave the foundation that I use to build my instruction.

Teaching is a hard job. The burnout rate alone tells us this. One assignment during my certification program was to finish the sentence, “Teaching is like…” and I remember a fellow teacher candidate describing page 18 from Dr. Seuss’ The Cat in the Hat. The cat is balancing on a ball, juggling 95 million different items, all while trying to hold up the goldfish and keep it safe. That comparison resonates deeply with me. We are expected to be experts in many different content areas, in social-emotional skills, and in using technology. It can be easy to become bogged down and overwhelmed in all the extra stuff that accompanies teaching. When I find myself going down that rabbit hole, I hear the Cheryl-ism “Quality teaching is really just about knowing your kids.”

To me, innovative teaching can take many different forms, but it ultimately boils down to how well you know your students. Cheryl taught me to teach with a sense of urgency: Who are these kids? What do they need and how am I going to get them there? (Routman, 2008). When I know my kids as people, as learners, as human beings with various strengths and areas for growth, I can tailor my teaching to ensure that I meet them right where they’re at. As I look over pacing guides and manuals, I push myself continually to remember that I teach kids, not curriculum. While instructing during readers and writers workshop, I offer my students a connection to the real world before launching into my teaching point. Any books for read aloud are chosen with my kids in mind—Are my students reflected in the characters? What does my reading data say about where my kids need more instruction? Does this book offer a lesson that is relevant and powerful? I want to expose my students to complex and rigorous instruction that honors who they are while pushing them to look within themselves and then go be better people out in the world. Isn’t that why most of us show up every day?

Innovative teaching is not about a beautifully decorated classroom, creative “craftivities” or the latest technology with all the bells and whistles.
The other necessary commitment is prioritizing skills over content knowledge. This is not to say that knowledge is not important (as STEM is not a spectator sport). There will still be the need for content-area experts, but that should not be the base or focus for the whole system. We must replace the idea of “trickle-down education” with a “grassroots” one. By focusing on a system that allows all students to develop skills in creative and interdisciplinary STEM-and-project-based-learning environments, we will create a catalyst for increasing agency, rigor, and relevancy for entire schools.

I change lives by using STEM for everyone (from gifted to intervention). Often people give me a perplexed look when they hear that. It is not an issue of content; it is a mindset. The STEM world is the world that students already live in—we just need to know how to tap into and harness it. Recently I led a training at a national technology conference about STEM-4-All, when during a break a pair of older teachers hesitantly came up and asked, “Isn’t this like some of the stuff we used to do?” As I sat with them and processed through their question, it became clear that they always knew that teaching similar things (like math in woodshop, puzzles in science, and maps in social studies) were highly effective but couldn’t remember why they stopped. The sad truth of what happened is they conformed to abandoning those types of activities as national narratives and educational focus shifted over the past 30 years.

The fact is that woodshop, home economics, industrial arts, and logic classes all were valid and important to long-term skill development. Think for a second—how did the people who took us to the moon get educated in fields that didn’t exist yet? How were the first computers programmed when there wasn’t even computer science yet? The heart of STEM is about the ability to problem solve, use logic, create, destroy, persevere, and make tangible outcomes.

The hardest part about shifting to an authentic STEM-and-project-based class is that not only does it require us to break the chains of what has been “normal”—it also forces us to accept that it is not the subject that matters, it is the interdisciplinary skills and processes that count. My students’ connections with and interest in various subjects is noticeable and getting stronger with each project. By allowing the students to embrace and engage in STEM projects, their learning becomes real and relevant for all. Creating agency, rigor, and relevancy works—let STEM guide your path.

References
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Lydia Booker
Lydia Booker is a teacher in Renton, Washington. She is passionate about equity and has been working with Title I students for the past 10 years. She has taught kindergarten, first, and second grades and is currently working towards her Master’s in English Language Instruction.

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You may have noticed that Washington State ASCD has a new look. Although our logo has changed our commitment to promoting promising practices to ensure ALL students are safe, healthy, engaged, supported and challenged remains. WSASCD continues to provide our members with relevant professional development opportunities, programs and resources. Along with our new logo the WSASCD website has undergone an update; visit us at www.wsascd.org

In March, President Marie Verhaar and Board of Directors Kindra Clayton, Dr. Forrest Griek, and Dr. Shannon Thompson attended Empower18, the Conference for Every Educator in Boston, Massachusetts. During the conference Marie and I attended the affiliates leader meeting where we collaborat-ed with other affiliate leaders to learn how they serve their members. Empower18 offered a wide variety of professional development with educator leaders facilitating many of the sessions. The conference was a great opportunity to meet other educators with a common focus, the whole child. This year’s conference also included a big celebration—ASCD turned 75! ASCD continues to support educators with diverse resources on education issues that affect learning, teaching, and leading; ASCD is also the birthplace of The Whole Child Initiative.

Annually Washington State ASCD seeks to recognize a school with The Whole Child Award. Last spring, Hamilton Elementary School from Port Angeles, WA, was the recipient of the 2017 WSASC whole Child Award. WSASC selected Hamilton Elementary because they are a school that demonstrates consistent growth and sustainability in supporting The Whole Child within their school and community. At Hamilton students feel safe, valued, respected, and cared for. They are challenged, engaged, and motivated to learn. They have created a school climate that focuses on the theme “Hawk Heroes Help Themselves and Others to Learn.” The corresponding behavior expectations are: Be Respectful; Be Responsible; Be Safe; and Be More Awesome. High Center for Education Effectiveness (CEE) scores, high expectations, and above state average academic scores reflect what Hamilton Elementary proudly refers to as “The Hamilton Way.”

Our affiliate was pleased to hear that Hamilton Elementary was selected as this year’s Vision in Action: The ASCD Whole Child Award winner. The “Hamilton Crew” was presented with their award at the leadership luncheon at Empower 18 in Boston. Principal Gary Pringle is so proud of his students, teachers, staff, and school community. Hamilton Elementary will join the new Whole Child Network (WCN)—a global network of schools dedicated to educating the whole child for the whole world, and the school will be featured as a model of the ASCD Whole Child approach.

Last June, WSASCD began a partnership with Kristin Souers, mental health counselor/consultant offering the Trauma Informed Practice Summit. As a result of feedback and in response to current needs of educators, we are pleased to continue our work with Kristin Souers as she returns this spring with Trauma Informed Practice Part II. I hope that you will join us for this upcoming professional learning opportunity on May 19, 2018, WSASCD in partnership with CharacterStrong is offering a one-day CharacterStrong training at Orting High School. Please mention WSASCD when you register. For registration information about both events visit wsascd.org.

Finally, I want to thank each of the Washington State ASCD Board of Directors for supporting our affiliate’s work related to the ASCD Whole Child Initiative.
Theme: School Climate and Safety

The next issue of Curriculum in Context will focus on measures to create supportive, positive, and safe school climates for all students and staff. With an increase in school violence across the country the time is now to address this important topic from myriad perspectives. Comprehensive approaches emphasizing prevention, support, and empathy will help turn the tide of an alarming trend (Lewis, 2009; Young, 2017). Implementation of restorative practices represents one example of reimaging how to “do” school discipline. Such a shift can work alongside policy to create a nurturing school climate of respect and understanding with reduced disciplinary actions (Okonofua, Paunesku, & Walton, 2016). Some related topics under this theme that may contribute to the conversation include:

- School discipline policies and practices
- Emergency response policies and practices
- Restorative justice practices
- Education on bullying and prevention
- Systematic approaches to violence prevention
- Threat analysis
- Responsive approaches to students in crisis
- Community and school-based support systems for students and school personnel
- Professional development related to school climate and safety

This issue of Curriculum in Context will focus on school climate and safety. Potential articles submitted for the Learn section should be a current book review between 500 and 750 words and should include the APA reference for the book. Manuscripts for the Teach and Lead sections should be between 850 and 2500 words, focus on either the classroom (i.e., teacher) perspective or the leadership perspective, and include citations written in APA format. Please submit questions or articles for consideration by September 15, 2018 to: Dr. Kathryn Picanco (kpicanco@whitworth.edu).

