



KATHERINE  
SMITH



Local muralist worked with the school to add their key values to building walls.



Intellectual  
Challenge and  
Accomplishment



Authenticity



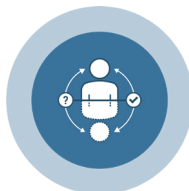
Public  
Product



Collaboration



Project  
Management



Reflection

The [Framework for High Quality Project Based Learning \(HQPBL\)](#) describes PBL in terms of the student experience. It describes six criteria, each of which must be at least minimally present in a project in order for it to be judged “high quality.” The six criteria were chosen as a necessary starting point for providing students access to HQPBL because they are an essential baseline, but they are not all-encompassing.

Projects that are the most memorable, and that have the greatest impact on student learning and development, will be those with the highest quality implementation of each criterion. The case study that follows highlights the six criteria and is intended to provide readers with a real-world example of HQPBL.

For more information and resources, visit the HQPBL [Katherine Smith](#) page:



'Fresh' and 'innovative' might be adjectives readily applied within the startup world; however, they aren't often used to describe public elementary schools.

Seven years ago, Aaron Brengard came to serve as principal of Katherine Smith Elementary, a 55-year-old Title I school within San Jose's Evergreen School District. Despite its location in Silicon Valley, the school seemed a world apart from the region recognized globally for entrepreneurship and innovation.

The majority of its K-6th grade students (81%) receive free or reduced lunch, and roughly six out of ten are also English language learners. Most students at Katherine Smith hail from either Vietnamese- or Spanish-speaking homes.

From the very beginning of his tenure, Brengard championed a school redesign that would better prepare students for the real world. (He has since moved on to become principal of the district's middle school, with close ties remaining to its elementary school operations. Kevin Armstrong and Rachel Trowbridge, also both founding teachers, now lead Katherine Smith.) The lessons learned from this journey toward High Quality Project Based Learning (HQPBL) remain relevant, however, as they could potentially be applied to public schools across America.

Although the students of Katherine Smith are quite young, instilling them with principles and values in preparation for a high level of project work will undoubtedly impact their secondary and postsecondary experiences, as well as their entry into the workforce. In order to ensure success, school leaders and faculty engaged in frank conversations about openness, what HQPBL experiences looked like and about growing their real-world industry savvy.

## A New Beginning and a Culture Shift

"We weren't a charter," Brengard explained. "There wasn't any sort of school choice for families. If you live here, this is what they'd get for education. So we decided to take a unique angle. Many people think that innovative stuff only happens in special places, like charters or magnet schools—not in a traditional setting. But if you can gather a team that believes in an approach to giving kids meaningful work, that's a different story."

As part of its redesign, the school established a PBL instructional model. This required a number of shifts in internal culture.

Some teachers' stances on radical change were deep-seated, including what was perhaps a healthy dose of skepticism. After all, there was a history of leadership challenges; Brengard was the school's fifth principal in just 10 years. "I presented the idea about making a big shift and welcomed teachers to stay if they wanted, and to write a letter of intent. It wasn't that they were bad at their jobs; we as a school hadn't set them up for success. We'd had a fair amount of discipline issues and suspensions, and kids who were sadly disconnected from school," he added.

The teaching staff had already endured significant changes. "It was easy for me to be empathetic to the idea that maybe the faculty don't want to buy what I'm selling," Brengard said. "Right from the beginning, they had the choice. I held office hours to talk through our transition to PBL."

Some teachers signed up and interviewed to stay on, while three-quarters of the new teaching staff wound up transferring in from other schools. It was an ideal situation in many ways, as those who were present were already invested in and excited about project-based learning.

They started out with complete innovation—everything was fair game for disruption. “Outside of knocking down walls, everything was on the table,” Brengard explained. “We could eliminate bells, alter interior classroom setups. Some things we’ve returned to and said that’s a better idea. Ultimately, this was about getting everyone on staff involved. Agency was a huge part of our transformation.”

## Innovation: Hard Work Behind the Scenes

Naturally, the full reinvention of Katherine Smith Elementary didn’t happen overnight. Brengard noted that his role as principal was a very different job early on—that even the word ‘agency’ didn’t figure prominently in the local educational vernacular at that time.

There was very little experience with PBL prior to the school’s reopening. Teachers had arrived with an idea of a hands-on lesson for that summer, which is how they were interviewed for their positions. The school provided them with free project templates and documents from the Buck Institute of Education (BIE).

When the staff arrived, he took a team to BIE’s PBL World conference, where they received valuable training—something he credits for helping teachers from all grade levels to make a significant shift in a condensed timeline. They gained deeper insights into helping students obtain learning outcomes beyond what schools typically measure, such as collaboration and global citizenship. Another key element that helped to accelerate the work: ensuring there was space for educators to actually make mistakes in their classroom practices. If it meant that benchmarks from the district weren’t perfectly aligned, Brengard saw that the district was involved and on board with their approach.

Year 1	One of the biggest challenges in the initial year involved providing a high quality project experience for students at each grade level. Through coaching and adopting other proven methods, teachers were able to iterate upon and set the stage for more robust learning after the first wave of student projects.
Year 2	An exhibition of students’ projects was added during the second year. Teachers received coaching from Ken Kay, CEO of EdLeader21, who visited their campus 4-C’s of Communication, Collaboration, Critical Thinking, and Creativity into their classrooms. Katherine Smith became a New Tech Network school.
Year 3	The third year was one of refined implementation, with more concrete project-related language and graphics thoughtfully embedded into the curriculum.
Year 4	Taking an idea from schools associated with <a href="#">EL Education</a> , Katherine Smith teachers developed learning targets for literacy skills—as content is critical to the learning they aim to foster.

Giving kids engaging, open-ended problems and enabling them to drive questions through the completion of a meaningful project became the cornerstone of HQPBL at Katherine Smith. In one project, called Digging for Dinosaurs, students learned about various extinction theories for the prehistoric creatures, then made their own claims and supported those with evidence from their research.

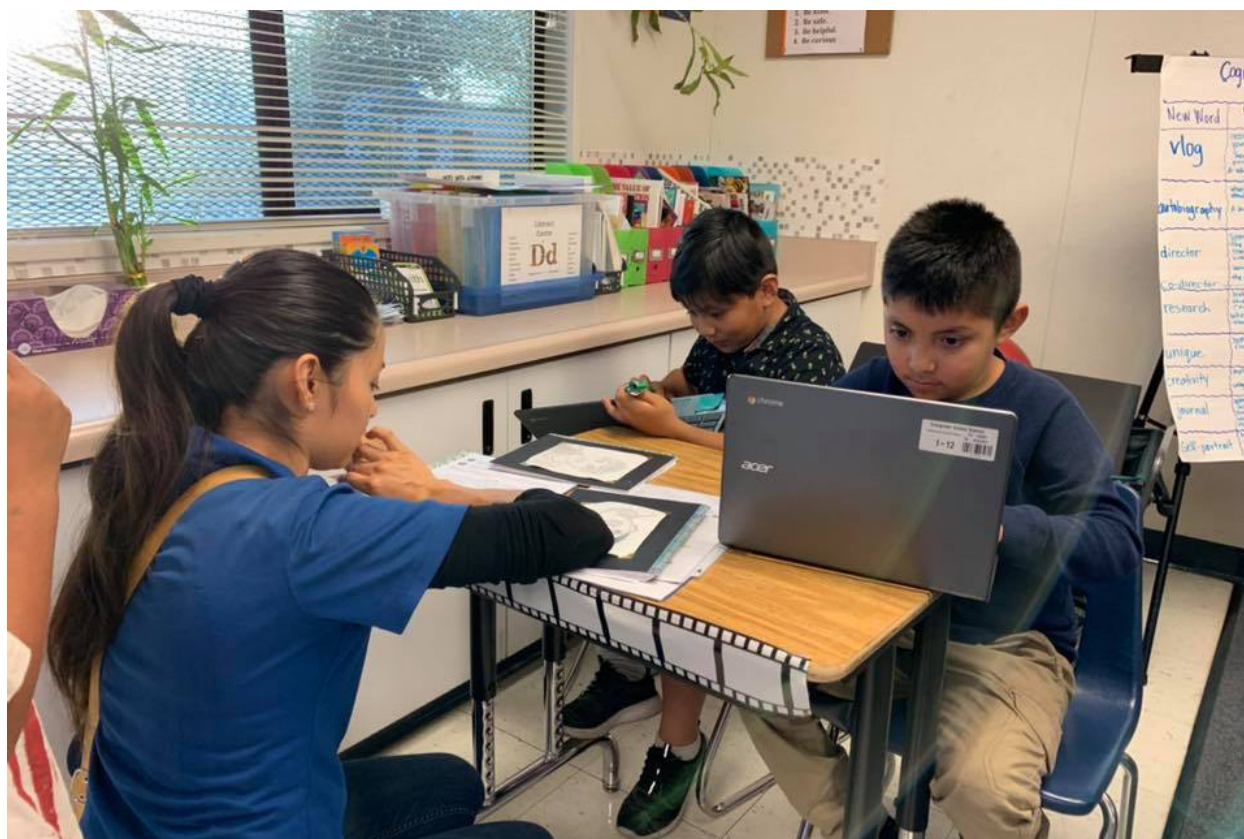


Projects, as it turns out, tend to have a messy middle. They kick off with an initial inquiry and then involve instruction before introducing some of the most challenging parts: research, problem solving and evidence gathering. This model has been a learning experience for both students and teachers at Katherine Smith.

Throughout their project work, Brengard noted that some students who have been language learners for several years may have a false sense they're not doing well, but in recognizing any areas of deficiency, teachers are able to help them to build necessary strengths and accelerate growth. Educators setting up opportunities to learn, but it's the kids who actively take on responsibility—and those skills to transfer to other settings.

After every year, the staff iterated and improved upon aspects of students' experience, whether it involved adjusting the pace, structure, or autonomy. What began as a necessity to provide better education became an internal cycle of striving toward widespread student success through HQPBL experiences. Almost nothing was repeated; since Year 1, projects have only evolved.

It all began with school leaders and teachers clarifying the outcomes they wanted for students, and working backward from there. These included definitions of success in college, career, and life. Now, their work hones in on practicing, improving, and adjusting to the HQPBL ecosystem. "All of us recognized we were proactively doing this for the long haul," Brengard said. Empowering students to track and report on their progress has also served to reinforce agency.



Third grade scholars sharing their work at an exhibition (From the KSmithSchool Facebook page.)



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## Integrating Tech into Everyday Instruction

HQPBL experiences offered a litmus test for teachers at Katherine Smith to observe differences in student engagement, as well as learning outcomes; ultimately, the model helped students to showcase and develop a lot of other important skills, such as problem solving, critical thinking, communication, public speaking, and research methods.

The school has operated as a shared leadership model from the beginning. As a New Tech Network school, curriculum, culture, and tech factor prominently into building the framework for its 21st century-learning environment.

Incorporating technology didn't come without significant investment, as might be expected. The school was able to creatively finance half a million dollars of technology, borrowing against the district's reserve. Katherine Smith provided 1:1 devices from the third grade and up, including 350 iPads, interactive whiteboards, and laptops. Obtaining grants was deemed too difficult a path for a yet to be fully operationalized model. After showing progress, they're able to secure funds externally.

"We knew we had to have tech be ubiquitous; it had to be right there next to the student, where they could use it just like a pencil or crayons," Brengard said.



There was a steep learning curve on many fronts. With little to no time to train teachers and students, they opted to learn as they went. The kids received immediate access to technology, which created pockets of innovation on campus. One teaching team emerged as a tech leadership team that assisted other educators regarding instructional uses for various tools.

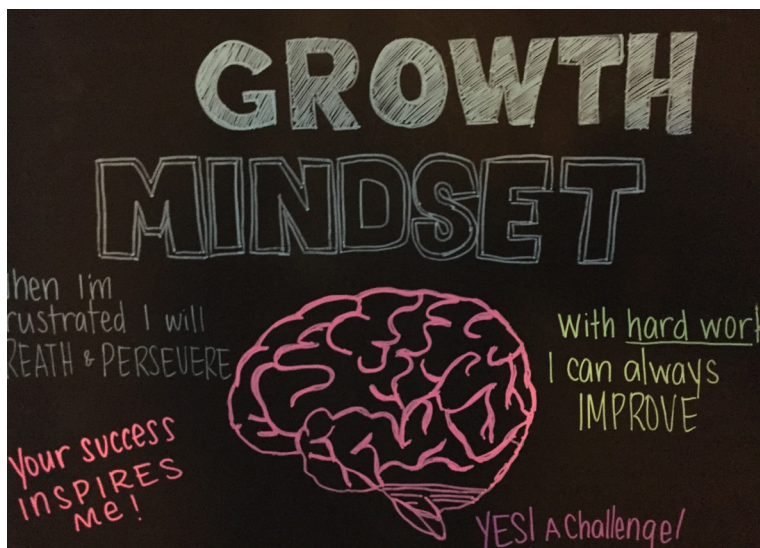
"What's happened in the last year and a half is that the school is shifting into being about better outcomes in innovative practices," Brengard observed. "For example, we have a very good understanding of student literacy through project work. This is just the byproduct of one of many shifts as the years have gone on."

## Leadership On Every Team

A teacher team in charge of school culture has examined ways to have a student success mindset permeate throughout the community, which includes many parents and families that have immigrated to the U.S. This particular team was working on implementing better systems and practices in many areas; for example, they helped students to deal with issues surrounding life in a high poverty and high-crime area, and dealing with fight or flight in stressful situations. Now, however, they're also focusing on when and how to provide English language services, and other aspects of personalized learning and deeper learning.

When Brengard referenced "leadership teams," he was quick to point out that this isn't an exclusive group; in fact, every teacher on the Katherine Smith campus is on a team and is in charge of that outcome. A smaller team may help to write overarching goals, such as the strategic planning team. The Personalized Learning team is focused on small group instruction, some of which is computer assisted. They also employ the "original PL platform" of small group instruction, where kids move through rounds of reading, writing, phonics and other skill-based exercises.

"There have to be places where we are following each others ideas and leadership as a broader team," Brengard said. "This structure came to me as a place to help organize the main tenets of our learning model. PBL is the 'how' behind us helping students become career and civic-ready."



## College Bound, Without Exceptions

Katherine Smith's new co-principals, Rachel Trowbridge and Kevin Armstrong, now carry the HQPBL torch while maintaining the school's focus on preparing students for postsecondary education.

"Within our mission is a 'College-Bound' Attitude," Trowbridge and Armstrong said. "We at Katherine Smith are college crazy. As we provide students with a high-quality, rigorous project-based curriculum, we will also be setting the expectations that our students are going to college." They encourage parents to talk with their children about college, as Katherine Smith is a "No Excuses University" school; if you pass through its doors as an elementary student, you are going to college.

The school hosts a weekly assembly for all students, where they're led in various college cheers and given a call to action that motivates them for the academic work that lies ahead.

Leadership is prized at the student level as well. There are kids who serve as school ambassadors, giving tours to visitors, and others who teach their peers about proper care for technology are called Tech Geniuses; Katherine Smith even has an anti-bullying group that tries to bring kids together on the playground, leaders for success. There are over 120 different leadership spots available to students, with some overlap.

Speaking of visitors, there are quite a fair share. The school welcomes between 500 to 700 visitors each year, who come to observe students' project exhibitions, teachers' approaches to instruction, the way tech is integrated into their HQPBL experiences, and to better understand how to operationalize a similar curriculum with a variety of constraints.



Ambassadors lead visitors around the school on a tour.



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This case study was produced by Getting Smart as part of the High Quality Project Based Learning campaign. The goal of the campaign is to identify what HQPBL student experiences look like and work to ensure all students have access to this type of learning. The campaign is supported by Project Management Institute Educational Foundation (PMIEF) and the William and Flora Hewlett Foundation and sponsored by the Buck Institute for Education.