Model Classroom
“Model Classroom empowers all participants by providing innovative and superlative professional development with real world implications that can be incorporated and adapted into personalized teaching and learning contexts.

The caliber of participating presenters and cohort of teachers creates an opportunity for professional collaboration available, as far as I have experienced, nowhere else. The rich and diverse projects implemented in communities across the country bear witness to the unique potential of the Model Classroom.”

- Catherine Davis Hayes, Rhode Island State Teacher of the Year 2007, three time workshop attendee and 2010-2011 project alumni

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Learning should be real, relevant and make an impact.

A program of the Pearson Foundation, Model Classroom began as an offshoot of State Teacher of the Year workshops at the Smithsonian in 2010. Though the original intent was to support teachers in implementing submitted projects, particularly in the area of technology integration, the program quickly evolved to emphasize student-driven learning approaches and the belief that learning should be real, relevant and make an impact. As an integrated professional development model, Model Classroom provided summer workshops to nearly 250 teachers, project support to 24 individual teachers, a school-based professional development in Kansas, and a district-based professional development reaching over 90 educators in coastal Oregon. Recognizing the many challenges present in implementing large projects, Model Classroom has shifted from a project-based model to a model that emphasizes the foundational and more specific practices necessary for implementing problem-based learning, place-based education and civic engagement. Model Classroom has not been one static approach, but rather an evolving philosophy and set of practices.

The work represented here is not a one-size-fits-all answer to a specific problem, but recognizes the unique challenges individual teachers, schools, and districts face. The work is as diverse as the community itself, taking on local issues, individual school cultures, and the messy nature of tapping into students' interests. Following is a summary of the program’s successes, challenges, and lessons learned over the course of three years. A set of teacher case studies and professional development programs illustrates our findings in detail, followed by recommendations for future work.

Practices

Key practices associated with problem-based learning, place-based education and design thinking: key practices include:

**Student driven:** Activities stem from student interest, students have voice and choice (i.e. in topic, tools used to present and publish).** Collaborative:** Group work with an emphasis on individual ownership within projects.** Purposeful:** Work addresses a real problem, challenge or issue that is relevant to students; is action-oriented; provides opportunities to publish and share beyond the classroom.** Community-centered:** Uses the school, neighborhood and extended community to identify problems and opportunities for students to explore and address.

INTRODUCTION

4th and 5th grade students in Oregon promote salmon preservation through PSAs, a website and a science fair. (See page 50)

Artistic trash art of the Bighorn Ram school mascot, a student-led effort for environmental stewardship; created by Wyoming 3rd Graders. (See page 46)
**Student Engagement:** Participating teachers consistently report increased student engagement, sharing that students who were formerly quiet or uninvolved became class leaders through this work. Teachers also report that giving students a real purpose for their research and writing has the potential to help struggling writers persevere and enjoy tasks previously found to be tedious or boring. In addition, increased attendance is commonly reported.

**Sustained Community of Practice:** Ongoing relationships have been supported by an online community, blog, and continued communication with key educators.

**Workshop Model:** In survey data, teachers consistently share that Model Classroom workshops are the “best” they have attended. Reasons given include: an active and immersive model, being treated like professionals, as well as time to learn from other educators and develop classroom activities and practices for implementation.

“This PD is structured to encourage unstructured thinking, collaboration, and learning. It is set up to allow a certain amount of personal struggle...out of this struggle comes some insightful and inspired learning. This is unlike most PDs we are required to attend because of that freedom...Really important to the success of this week is the attitude towards the teachers...we are treated as professionals and our expertise is respected.”

- 2013 anonymous survey response

**Desire to Replicate:** Many program participants have proposed localized professional development programs to Model Classroom. Past engagements include a school-based PD in Kansas, a district-wide PD in Oregon and a Detroit-based summer workshop (see pages 60-67). Future opportunities have been presented by educators at the Connecticut Teacher of the Year Council, the Network of Michigan Educators, and other alumni from New Jersey and Rhode Island. In addition, many past participants report implementing mini-versions of Model Classroom workshops as hour-long or day-long PDs for their schools and districts.

**Move to Smaller Practices:** While there is plenty of research and evidence to support the educational value of project-based learning, many teachers—even award winning teachers with years of practice—consistently struggle against the barriers within many current school districts. Evolving to an emphasis on smaller practices has expanded the model and made it more accessible to new teachers as well as educators in schools with structured inflexible curriculum and other barriers. In addition, many new teachers report that starting with the smaller practices—such as turning an existing lesson into a challenge for students to solve or setting up a classroom space to be more collaborative—ultimately lead them to implement a larger real world project.

**Building Students’ and Teachers’ Confidence:** Model Classroom projects and practices push teachers and students by allowing them to explore their interests, be actively engaged in their schools and communities, and build confidence and important soft skills and affective aspects.

“One of my goals with the Model Classroom mission is to provide a balance between the rigorous curriculum and the affective and social aspects not covered in state tests. Many students may never earn an A+ on a test, may never be honored as a scholar, but with the Model Classroom there will be always a chance for these students to shine by using their unique talents in civic engagement.”

- Lucy Popson, 2006 Arizona State Teacher of the Year
Common Challenges

While these challenges are separated into specific areas, it is worth noting that most hinge on the first challenge listed: a lack of flexibility in curriculum due to a focus on standardized testing. This lack of flexibility results in a lack of time to implement new practices as well as time and willingness to get other teachers and stakeholders to buy-in.

Lack of Flexibility/ Emphasis on Standardized Testing. Teachers in schools with high-poverty rates, as well as many at more affluent schools, consistently share they have little flexibility to implement work outside a prescribed curriculum. Many of the teachers who succeed in implementing new practices do so through admirable grit, drive, and finding creative solutions. For example, some identify loopholes—such as 30-45 minute timeframes a few times a week or the creation of an after-school club—in order to navigate the world of standardized testing and do what they feel is best for students. Others seek press for their work, giving them clout with administrators, and a “hall pass” to do something different.

“The implementation of my projects was a huge challenge due to the rigid instructional approach mandated by the administration at my school and district... This is my third year with the [project]; however, we have not been as active as in the past due to the Common Core implementation that dictates what the students should be writing about (exact same writing prompts across the district with no room for modification). These writing prompts do not challenge the students to think about the world, about their community, or about themselves...Because of the Model Classroom, I know there is a better way of doing things. I am not giving up.”

- Anonymous survey response, December 2013

Lack of collaboration or support from within. Even teachers who feel supported by their administrators felt pressured not to veer too far from the curriculum, most often due to a fear of test scores dropping. Similarly, collaboration with other teachers is essential. Teachers who lacked a supportive teaching partner struggled to carry out the approach. Reasons for lack of teacher buy-in include fear of administrator approval and/or a personal unwillingness to change their teaching practice and try something “harder.”

Difficulty Collaborating with Outside Organizations: Some ambitious project proposals have come to a quick halt when an outside organization had a different vision than the teachers or students. In one example, teacher Andrew Mogle (2008 Iowa State Teacher of the Year) wanted his culinary students to develop healthy menus and nutrition education for local shelters. The shelters wanted the food only. While this project was able to take a different direction, others have come to a halt as a result of differing visions. (Read Andy’s story on page 39)

Timing While some educators are able to artfully weave a project seamlessly into their required curriculum, most report that timing is a major hurdle. Even when some teachers see the value of real-world projects, their team members often fall off the wagon when they get behind on required curriculum and standards.

“[The project] lasted a lot longer than anticipated. Accelerated math students are typical perfectionists, and they kept asking for additional time to “add one more thing” or “make this part just a little better.” They were completely invested in the project, maybe to a fault...The downside is that we didn’t finish all of the curriculum, and the accelerated teachers [at the next grade level] were not happy. We were not given permission to repeat the project the following year for this and a couple of other reasons.”

- Cynda Fickert, 2005 Alabama State Teacher of the Year, who shared that her district moved to a scripted math program that required all teachers to keep the exact same pacing.
COMMON CHALLENGES

Lack of Access to Technology: While Model Classroom’s approach has shifted to emphasize student engagement strategies over specific technologies, it’s important to note that lack of access to tools and web platforms is a significant hurdle that prevents students from accessing the wider world, outside experts, and collaborate with each other and others outside of school.

In the Classroom: Letting Go of Control and Being Less Helpful. In classroom implementation, teachers repeatedly share that handing over control to the students and “being less helpful” is a big mindset shift. This shift is often described as becoming a facilitator, a role that is surprisingly more difficult than it sounds.

“The most challenging part... was sharing the responsibility of learning with the students. As teachers we so often put that burden upon ourselves—when in fact our students need to take responsibility for their educational experiences as well. This project allowed me to do just this, and it was very difficult at first. But the more I pulled back... the deeper students would go to find information. And the best part— they were finding it. I wasn’t feeding them answers, they were conducting research, they were analyzing the texts, they were comparing information and checking sources, and they were putting together a festival for the entire community.”

- Hannah Walls, Bates Middle School; Danville, Kentucky

“There is a pretty big learning curve [for new technology] and not a lot of time to devote to figuring things out. As an educator, I had to be okay with not being completely in control and let the students figure things out along with me.”

- Laura Jones, 2008 Washington State Teacher of the Year

LESSONS LEARNED

Lessons Learned

Support is not the same as commitment. While many participating teachers shared that their administrators supported their ideas in theory; in practice these same teachers were often not given the adequate time, flexibility, or resources to carry out their work.

Recommendation: Ensure there is a community supporting and sustaining the work. This may include other teachers and administrators as well as parents and community organizations.

Relationships are a powerful change agent. Education is, by nature, human. In order for teachers to shift their practice towards relevant, personalized and action-oriented learning, professional development and support provided to teachers must make them part of a community of practice working towards that same goal. A 2013-2014 Model Classroom survey asking “What has most influenced your teaching approach?” was most commonly responded to by listing a specific person, collaboration with other educators, access to outside professional development, or their students.

Recommendation: Any successful program will have human supports and mentorship in-place inside the school, with the district, and when it makes sense, from outside organizations.

Online and virtual is a powerful tool, but is most effective as a supplement to face-to-face support. In carrying out school and district-based professional development, Model Classroom used a blended model with virtual meetings and online collaborative spaces. These tools were essential, however, visiting a school and working with teachers face-to-face had the highest impact.

Recommendation: Any program attempting this work will want to have some advocates on the ground making face-to-face connections with teachers and students that build trust and momentum. In addition, outside organizations— like the Model Classroom— can support teachers by bringing influence and power to the partnership which is proven to help teachers get stronger support on the ground.
Experts are everywhere. One of the most effective steps towards changed practice is helping teachers and students recognize that experts are everywhere, and that their multiple perspectives and expertise bring learning to life more than online research. Specifically, students are all experts in something. Parents and community members who are not often thought of as experts can speak to life and work experiences. Beyond that, the people usually thought of as experts (researchers, scientists, museum professionals, business professionals, University professors) are often more available than many teachers think; often it’s just a matter of asking. Programs that utilize multiple layers of expertise have the potential to build student confidence, get stronger parent involvement, and bring in outside organizations with unique resources and perspectives.

**Recommendation:** Think outside the box about who experts are, then integrate multiple opportunities for experts to be involved including students, parents, community members, and even the school cafeteria staff or custodial staff. Opportunities might include having students conduct surveys, interview experts, and work alongside or shadow experts from different careers— for example helping a local scientist take samples and conduct research. Some schools have brought this practice to scale by building a database of parent expertise and willingness to work with the classroom.

Focus on practices as entry points to larger approaches. At the core of any great problem-based project, design thinking process or civic engagement exercise there are smaller practices that teachers and students must have to be successful. These include the ability for students to ask good questions and pursue an answer through research, collaboration skills, and publishing work to authentic audiences.

**Recommendation:** While there is much evidence to support the educational value of larger approaches like project-based learning, it’s important to consider the implementation barriers and provide support to overcome these barriers. Supports include breaking larger approaches into smaller practices, using a toolkit that allows teachers to test smaller activities, and providing mentoring by experienced teachers.

Find the loopholes. Reflecting on her ability to implement larger projects integrating localized problems and a range community organizations, June Teisan (2007 Michigan State Teacher of the Year, see pages 20, 58-59, and 64-65) shared “Since I implemented this in an exploratory class (not one of my academic hours) I had the freedom to pursue the project without ties to a set of strict curricular objectives.” Jeri Powers (2007 Kansas State Teacher of the Year, see pages 30-31, and 63) shares that her school is starting an after-school genius hour for 2nd and 3rd graders to explore and take action on their interests. The idea is to use the genius hour as a pilot to determine how relevant and interest-driven work can be better integrated into the school-day.

**Recommendation:** Educators and school leaders who are trying to implement this type of work in schools with rigid or scripted curriculums may find small windows of opportunity during the school-day or after-school. This work should be highly visible to staff and parents, and should have the very transparent intention to get the school community exploring and designing possibilities to integrate more holistically.
2010-2011 marked the beginning of the Model Classroom. An offshoot of the Mobile Learning Institute at the Smithsonian (MLI-SI) and the 2010 Teacher of the Year workshops, Model Classroom began with the intention of supporting teachers in implementing submitted lesson plans. The first cohort was small, made up of four lead teachers.

**2010 Workshop Approach**

The early relationship with the Smithsonian and a larger organizational focus on mobile technology resulted in workshops emphasizing museum practices and mobile technology. Submitted lesson plans reflected this confluence.

**2010-2011 School-Year Program**

While the initial school year support emphasized educational technology, the first teaching cohort was instrumental in shaping a program based on a practice rooted in the belief that learning can happen anywhere at anytime and that students are most engaged when work has a real purpose and audience. Year One participant Jeanne Muzi reflected “This is the kind of learning teachers dream of, and for me, has literally changed my practice.” Moving past 2010-2011 the workshop and professional development model for Model Classroom was significantly altered to emphasize these larger integrated practices, rather than focus on technology.

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**Jeanne Muzi**

*Sculpture Drama Dialogue*, 1st Grade, New Jersey

**Cathy Davis-Hayes**

*Cultural Vibrations*, 6th Grade Cross-Curricular, Rhode Island

**June Teisan**

*Invention Convention*, 6th-8th Grade, Harper Woods, Michigan

**Chris Poulos**

*Museo del Barrio*, High School AP Spanish, Redding, Connecticut
**Timeframe**
5 weeks

**Challenge**
First Grade Students give voice to art by creating and producing stories based on animal sculptures.

**Description**
In any story, dialogue plays an important role. Dialogue brings characters to life and makes a story interesting. Learning how to write dialogue correctly takes time, practice and an understanding of why a character talks in a certain way. This unit challenged young writers to use their creativity to give voice to animal sculptures. Students began with a virtual field trip to the Hirshhorn Museum Sculpture Garden to analyze three different animal sculptures. Students then worked in groups to brainstorm ideas, craft scripts, plan storyboards and finally, created movies or animations for a culminating Film Festival.

**Outcome**
"My students (only six and seven years old) planned, designed, created, reflected and celebrated their work all the while using new media tools, but most important cultivating the highest level of thinking skills. I witnessed the possibilities present in all classrooms where all students can learn to collaborate, innovate, problem solve and creatively express themselves while integrating technology… This is the kind of learning teachers dream of, and for me, has literally changed my practice." - Jeanne Muzi

Completing this project planted the seeds for Jeanne to implement much larger and impactful projects.

**School in Taiwan**
The opportunity developed for students to share, compare and present their Streamkeeper findings globally. Every first grader works on Streamkeepers by partnering with a local scientist, allowing students take on the role of scientists, ecologists and environmentalists monitoring and tracking information on a nearby stream. 2nd and 3rd grade Streamkeepers alum continue to meet after school. As part of the National Wildlife Federation’s Eco Schools USA Program, Jeanne and her colleagues established a larger program for Benjamin Franklin Elementary, giving every grade level a different focus working towards continued school greening efforts.

**Press:** New York Times Learning Network.

Additionally, the use of digital media introduced tools such as wikis, blogging and video to both students and teachers, resulting in teachers’ increased incorporation of tools for creative learning and as a means of assessment. Digital media enabled families to see student work and provide online support and feedback.
**CASE STUDY: Cathy Davis Hayes, 6th Grade**

“Cultural Vibrations”

**Timeframe**  
6-8 weeks

**Challenge**  
Students create instruments from found or recycled objects, then work together to compose a musical ensemble for a public performance.

**Description**  
This cross-curricular unit began with an investigation of musical instruments from the perspective of function, design, and cultural purpose. After these initial investigations, students took on the role of musical creators by creating their own instruments using found or recycled materials. The instruments’ decorative elements reflect students’ cultural interests such as favorite sports and teams, musical artists, movies and books, video games and technology devices. Students worked collaboratively to create and perform in a musical ensemble with their instruments.

**Outcome**  
Cathy reports that the teachers working together on Cultural Vibrations “learned a lot from the process and were able to implement improved future project and inquiry-based units in subsequent school years.”

Teachers also shared that this project gave students new opportunities to shine. “This project has let students who aren’t really the ‘superstars’ shine. It has allowed the ‘quiet’ students to be noticed… and become leaders. In addition they are now motivated to come to school everyday because they know others are depending on them.”

“This project has let students who aren’t really the ‘superstars’ shine. It has allowed the ‘quiet’ students to be noticed…and become leaders.”  
- Cathy Davis Hayes

**Press**  
Oakland Beach School uses social network to propel class projects
Oakland Beach students team up to create musical ensembles through technology

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**Oakland Beach Elementary School, Warwick, Rhode Island**

Demographics: Urban Ring, 52% Free & Reduced Lunch, 0% English Language Learners

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- Cathy Davis Hayes
**CASE STUDY: June Teisan, 6th-8th Grade**

**“Invention Convention”**

**Harper Woods Middle School**

Harper Woods, Michigan

Demographics: Suburban Detroit, 95% Free & Reduced Lunch, <1% English Language Learners

**Timeframe** 4 weeks

**Challenge** Students design their own invention to be shared at an Invention Convention.

**Description**

Imagine. Inspire. Innovate. It has been said that “we stand on the shoulders of giants” creating advances in society as we improve the work of prior innovators. What medical marvels, engineering exemplars or agricultural advances might be fostered if we encourage inquiry? The “Invention Convention” stimulated student curiosity and imagination through investigations into the history of inventions and a hands-on engagement designing their own project. In completing their projects, students selected one of these options: interview an inventor, dissect an invention, document a day sans inventions, or create a working Rube Goldberg-type structure to present as a website or documentary.

**Outcome**

“Once my administrators and community saw the student energy and success… I was able to integrate them across the grade level and around our district. I’ve been able to present at state and national STEM conferences… and the overwhelming response is, ‘We want to do this with AND FOR our students too.’” - June Teisan

June continues implementing projects through a special course called “Future Think.” The 2011-2012 school-year introduced a year long Water Initiative Project, a runner-up for the Microsoft Partners in Education award, which got students actively involved in water pollution research and stewardship of Lake Michigan. In 2012-2013 June implemented “Detroit 1933-2033” which became the foundation for a 2013 Model Classroom PD at the Detroit Institute of Arts.

**CASE STUDY: Chris Poulos, High School AP Spanish**

**“Museo del Barrio”**

**Joel Barlow High School**

Redding, Connecticut

Demographics: Suburban, 2% Free & Reduced Lunch, 0% English Language Learners

**Timeframe** 3-4 weeks

**Challenge** Students create a Spanish-language guide for a local museum.

**Description**

How might learning Spanish be made more immersive, real-world and relevant? This project challenged students to apply their Spanish language abilities to a real challenge: creating an interpretive tour that museum visitors could experience both in-person and online. Utilizing local museum resources through El Museo del Barrio, High School teacher Chris Poulos challenged his advanced Spanish students to develop a Spanish language interpretive tour which would allow visitors to experience the museum onsite and online. Students explored the Museo del Barrio collection and analyzed individual art objects. Importantly, the museum was involved in every step of the process and the students were expected to treat El Museo del Barrio as their “client.” El Museo del Barrio staff worked with the students through all project phases, communicating with students prior to their museum visit, working with the students on site, and providing feedback for the students’ final work.

**Outcome**

As a result of this project, students produced a website and a QR Coded Visitor Experience Guide. Teacher Chris Poulos reflected: “Levels of engagement, interest, and student performance have never been higher. Teachers and administrators are rethinking teaching methodologies and classroom practice. This [project] is the type of paradigm shift in teaching and learning that needs to happen in America’s classrooms.”
The 2011-2012 program is defined by a shift in workshop pedagogy, resulting in projects more focused on real world problems and students’ schools and communities. Technology integration remained a component of all projects, and focus for a few.

2011 Workshop Approach
The summer workshop model emphasized the idea that learning happens everywhere. Called “Mission Possible” each workshop day presented a challenge that teachers had to collaboratively solve using local resources, museum experts, people, and a variety of mobile and digital tools. Resulting projects utilized local problems and opportunities as well as action oriented and student driven work. This shift towards civic engagement is evident from project titles.

Teacher Audience
As a result of their attendance at the summer workshops, the 2011-2012 audience was dominated by State Teacher of the Year award winners. At the school-year implementation level, however, many of these teachers acted as mentors by pulling in entire grade levels or resource teachers to collaborate in the project. As a result, the impacts went beyond the workshop audience, notably changing the practice of new teachers who were part of project teams.

2011-2012 School-Year Program
The Model Classroom consulting model shifted to be less high-touch. Pedagogy was a bigger focus than technology. While several teachers received on-site support from the MC team, many teachers were supported virtually through phone calls, Skype, and shared documents.

Lucy Popson
Caring Crew: Day of Caring, 3rd grade

Jenn Harper
The Changed Landscape: Documentation of Hurricane Irene, 4th grade

Donna Dubois
Duck Print Eugene Historical Project, 4th & 5th Grade

Jeri Powers
Read, Write, Share!, 5th Grade. Additional Teachers: Traci Seyb, Amy Fontaine, Meredith Malone.

Tania Grimes
Excellence is our Destiny, 6th & 7th Grade. Additional Teacher: Justin Zobrosky

Beth Oswald
Citizenry Through Service, Middle School Homeroom

Cynda Fickert
More Than Just Football, Middle School Cross-Curricular (four additional teachers)

Laura Jones
Corporate Citizenship, High School Marketing Students

Bryan Coburn
Make an Impact, High School Engineering

Allan Bruner
Robotics and Social Networking, High School Physics

Andy Mogle
Feeding the Nation, High School Culinary Arts

“I literally saw these kids grow as people, not just as students.”
- Justin Zobrosky, 6th Grade Teacher, South Bend, Indiana
CASE STUDY: Maria Lucy Popson, 3rd Grade

**Timeframe**
Year-long

**Challenge**
Work together to address problems at school and within the community.

**Description**
Lucy’s students are primarily 1st generation Americans. Many face serious challenges including parents who have been deported or imprisoned. This project sought to provide a space for the students to explore their identities, find pride in their backgrounds, build connections with each other, develop empathy for their larger classroom and community, and ultimately make a difference. Using an online collaborative platform for sharing and communicating allowed students to improve their literacy skills and encouraged the participation of non-English speaking/low literacy level family members. Throughout the school year students participated in ongoing campus clean-ups and fundraising efforts for the local Humane Society. Culminating in a Day of Caring at the school, students presented various ways to contribute to the betterment of the school and to show that they care.

**Outcome**
“The students’ responses were overwhelmingly positive. Without hesitation the students concluded that the reason why the Caring Crew met its goal was because they worked as a team. In addition, they stated that before participating in the Caring Crew projects they did not know they could make a difference, and mentioned they wanted the Caring Crew to continue.” - Lucy Popson

The Caring Crew has become a part of Lucy’s teaching practice. Students entering her class now know that they will be carrying on the tradition of taking care of their school and community. As this project continues, Lucy pushes her own practice to give students more voice and choice and bigger opportunities for making an impact, such as the creation of a school garden during the 2012-2013 school year.

“Walter Douglas Elementary School
Tuscon, Arizona
Demographics: Urban, 74% Free & Reduced Lunch, 37% English Language Learners

“The Model Classroom opened my eyes to a different approach...The heart of the Model Classroom resides in the idea of giving the students more autonomy to shape their own learning by sharpening their critical thinking skills, creativity, collaboration, and communication; and this is my goal: to help students reach their full potential. As a teacher, it is more rewarding to see the students ask their own questions and look for the answers themselves other than drill and practice routines.”

- Lucy Popson, December 2013 reflection on her work
Timeframe
4 months (1-hour block per day)

Challenge
Document a natural disaster by collecting the community’s stories and photos for a student-designed website.

Description
In the fall of 2012 Cavendish, Vermont was severely impacted by Tropical Storm Irene. Every road in the community was damaged and many families were left stranded for weeks. After viewing their town’s documentation of a similar event in 1927, the students took on the role of historian and began thinking about how they could document the 2012 storm. They decided to create a website to capture the 2012 flood, comparing and contrasting the two events. This included collecting documents, interviewing community members, and creating a website that encouraged further participation and contributions from the community. Students brainstormed possible website designs and needs; decided on tasks, teams and roles-- including photographers, composers, and web designers-- then worked together to complete a website for their community. The Cavendish Historical Society provided 1927 documents and photos for the students to scan and upload. Students wrote letters to the Governor, the American Red Cross, the Proctorsville Fire Department, the Cavendish Historical Society, and the National Guard to collect additional pictures and stories for our website. Historians also came in several times to help caption pictures and guide students on what would be helpful to have on the website. Students presented their work at the school’s Art Night, and their final website was also shared at the Cavendish Historical Society.

Cavendish Historical Society

CASE STUDY: Jenn Harper, 4th grade

“The Changed Landscape: Documentation of Hurricane Irene”

Outcome
Website: https://sites.google.com/a/wswsu.org/cavendish-flood/

“In my opinion there is nothing more powerful than having students work on a project that makes a difference for the community they live in. Students were engaged in an authentic project that would be helpful to future generations, and most importantly, they were active learners and thinkers through the whole process. The Cavendish Historical Society said, ‘When the National Guard arrived in Cavendish within a few days of Irene, one of the things they were interested in seeing were the photographs and any documentation from 1927. Unfortunately, we know that Cavendish in future years will again sustain damage from flooding. This time, thanks to your efforts in developing the website, those involved in recovery, will have considerable information, far more than what we had for 1927, at their disposal and in a format that is easily accessible and usable.’”- Jennifer Harper,
Timeframe
One year; with some continuation for installation

Challenge
Design a city tour that honors Eugene’s history and celebrates its 150th birthday.

Description
How can a city’s history be preserved for generations to come? Donna Dubois challenged her 4th and 5th grade students to explore the possibilities, but Donna never imagined the traction it would grab from the Eugene community. Dubois’ students selected 20 downtown sites, researched their historical significance, tracked down and vetted old photos, then wrote a script and produced voice recordings that tell a succinct story of the city. When Eugene Mayor Kitty Piercy showed up to learn more about it, she realized this wasn’t any ordinary assignment. As a result, Mayor Piercy pulled multiple city officials and small businesses together who wanted to be involved. As a result of this city-wide collaboration, special signage will be placed at each landmark. Each sign will include a unique scan- nable QR code linking to the students’ productions. The city began the permanent installation of the tour at an official ribbon cutting in May 2013.

Outcome

YouTube Playlist of Duck Print Project (includes examples of final videos and production in process)
Duck Print Celebration Ceremony video (Friday, May 10, 2013 at Camas Ridge Community School)

“It felt to me like our whole class was part of this thing and it felt really special that we were the ones who were able to do it.”
- McKenzie Carrier, 5th grade student involved in project

“It is important for students to participate in real-world projects, collaborat- ing with experts, and contributing positively to the community in which they live. The Duck Print Project integrates each of the essential skills needed for our students of today to be prepared for the world of tomorrow.”
- Donna Dubois
CASE STUDY: Jeri Powers, Reading Specialist

**Additional Teachers**
5th Grade Team including Amy Fontaine, Meredith Malone, and three additional teachers; Traci Seyb, Technology

**Timeframe**
One Semester, December - May

**Challenge**
Students collaborate to produce stories in a variety of formats, and publish them publicly.

**Description**
“Read. Write. Share!” was a semester long project designed to engage and motivate students to read and write purposefully. In addition to resource teachers, the entire 5th grade team collaborated on this effort. The idea was simple: teachers would pose authentic challenges to students on a collaborative online platform. Over the course of the semester, students solved challenges in a variety of formats including podcasts, video PSAs, documentaries and animations, then shared them online. A social studies unit on colonization kicked off by asking students: “What would it be like to start your life over?” Students explored the 300 year-old piece of American history from a variety of angles including the challenges of living in Colonial times as well as considering our country’s most recent “colonists” by investigating immigration within their own community. Students worked together to write, edit, produce and publish podcasts based on their investigations. As Read, Write, Share moved on to new topics, students in two 5th Grade classrooms continued the efforts and published a range of work aligned to social studies and science, including persuasive calls to action around current-day global issues.

**Outcome**

_Riverview Elementary_  
_Shawnee, Kansas_  
_Demographics: Suburban, 5% Free & Reduced Lunch, 3% English Language Learners_

_Riverview Elementary Blog Post_  
_Student Work: Colonial Student Podcasts_

“What’s really amazing is that three boys in Amy’s room [a participating teacher] came to her today and want to work on a project to present to the district school board. They want to research and then put together a persuasive presentation as to why we need better technology in our district. Amy is working with them on how to frame their message – with respect, real facts/research... really consider their audience. The boys have gone from teachers giving them a challenge to challenging themselves!” - Jeri Powers, 2012

After the completion of “Read, Write, Share” Jeri went on to spearhead the development of a Model Classroom professional development for her school. Eleven teachers participated in the 2012-2013 program. Since then, Jeri has co-designed and implemented a district-wide professional development, and several of the participating teachers from 2011-2012 have adapted their practice to be more student-driven and project based, bringing in real-world challenges and adopting after school “Genius Hour” to address student interest.
CASE STUDY: Tania Grimes, 6th & 7th Grade

**Excellence is our Destiny**

Additional Teachers
Justin Zobrosky, 6th & 7th Grade Teacher

**Timeframe**
Year round

**Challenge**
Explore ways to integrate service learning projects into the school-wide curriculum.

**Description**
What does it mean to be an active and engaged community member? Initially focusing on how to help the local community, the project began by raking and cleaning the yards of nearby residents who were physically disabled or elderly. Students then brainstormed a way for school to give back to the Cardinal Nursing Home, a donor to the school. As students built relationships, they decided to interview and record the stories of selected residents. Students’ reflections were published through songs, poems, stories or monologues, and then shared online with school leaders and the community.

**Outcome**
“I literally saw these kids grow as people, not just as students…. The ample effort, emotion, thought, and sincerity poured into this… project is something I had never expected to achieve as a first year teacher…. As I plan to continue this project for years to come, planning it around standards is not going to be the goal. Building relationships and life experience dealing with unfamiliar people and places is what it is going to be all about…. Instead of using grades and other material incentives to motivate behavior, we will use these moral incentives of building relationships to encourage character growth and moral consciousness.”

- Justin Zobrosky, Project Lead and first year teacher

CASE STUDY: Beth Oswald, Middle School

**Citizenry Through Service**

**Timeframe**
5 weeks

**Challenge**
Encourage students to explore the school looking for areas of need.

**Description**
Beth Oswald shared, “The character education and citizenship component of homeroom is increasingly being neglected in my middle school as a result of high-stakes testing and the data-driven interventions mandated by NCLB. Students are being pulled from homeroom for academic remediation (math and reading interventions), and, as a result, cannot participate in those activities designed to address their socio-emotional needs.” Citizenry Through Service used a unit on empathy to encourage student exploration of school and community needs. In one activity, students visited a food pantry and photographed items that would help them through hard times and identified missing necessities. Students determined the need for basic necessities including shampoo and soap, then worked together on a community call to action using Facebook and YouTube. This cross-disciplinary project required students to collaborate and use a variety of academic skills - reading, writing, and general communication skills - while developing technological talents and a sense of self and citizenship.

**Outcome**
Beth reports that the result of this project was increased student empathy for community members struggling to make ends meet. The students’ call-to-action resulted in the creation of Facebook posts and a YouTube video designed to draw attention to the food pantry’s need for basic necessities. Students also sent the video to a number of large soap and shampoo producers in an effort to make a larger impact, but they replied that they do not do donations on a local level.
**“More Than Just Football”**

**CASE STUDY:** Cynda Fickert, Middle School

**Additional Teachers**
Team of four additional teachers representing Language Arts, Visual Arts and Social Studies

**Timeframe**
4 weeks

**Challenge**
Students create a scale model of a monument representing Alabama citizenry

**Description**
Ninety percent of the Alabama state citizens described themselves as college football fans. Auburn, Alabama is home of the Iron Bowl, the college football rivalry game played between the University of Alabama Crimson Tide and the Auburn University Tigers. This cross-curricular project was spearheaded by a middle school math teacher wanting to redirect her students to explore and discover other important aspects of Alabama beyond football, and looking to find ways to use math for student civic engagement. The project explored symbolism and citizenry, challenging teams of students to select an Alabama citizen or event to memorialize. Students used a collaborative online space to brainstorm, draft ideas, and share work. As students developed their scale models, they used a design thinking process to ideate, draft, design, and build. Students’ projects were published online and presented at a “Community Day.”

**Outcome**
Project Wikispace

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**“Corporate Citizenship”**

**CASE STUDY:** Laura Jones, High School Marketing

**Timeframe**
Semester

**Challenge**
Develop business proposals to serve the community’s needs through the student-run DECA Doghouse.

**Description**
The Business Marketing Leadership Program utilized a student-run store, the DECA Doghouse, challenging student employees to investigate their population and develop proposals to become a better corporate citizen at school and beyond. Reflecting on exemplary models like TOMS Shoes, they researched, evaluated, and debated business case studies. As a team, students determined ways to take action within school and the community at-large, a high-poverty community. Students experimented with a range of tools—including social media, QR codes, and polling tools—to collaborate, connect with customers, and market the DECA Doghouse. Project proposals included school-wide recycling, providing support to homeless teens, and collecting clothing for Goodwill Industries.

**Outcome**
“This program is helping me push the envelope in terms of the limitations of my technology and the district’s technology policies. These ideas need to be pushed and these conversations… need to happen in order for us to successfully educate students who will need to access, learn and evaluate technology resources.” - Laura Jones, 2008 Washington State Teacher of the Year

Laura’s students continue their efforts on technology integration, using Edmodo and a new set of iPads. They continue to implement the Corporate Citizenship project, resulting in some spin-off opportunities. They won a National Youth Leadership Council Project Ignition Grant and students created a campaign, “Don’t Wreck Your Text” to raise awareness of the dangers of texting and driving.
CASE STUDY: Bryan Coburn, High School Engineering

**Timeframe**
Semester

**Challenge**
Devise and propose solutions to a local water shortage.

**Description**
Bryan Coburn’s presented a scenario to his Introduction to Engineering students inspired by the community’s very real drought, a drought so bad that cars could only be washed on specific days. South Carolina is not alone: approximately one-third of the US is at high risk for water shortage. Students identified and examined environmental issues related to water scarcity in their community, then designed solutions to be shared with the community and experts. Students created online portfolios showcasing their research, 3D designs, and multimedia presentations marketing their designs. Student proposals included documentation of each stage of the design process, a design brief, decision matrix, a prototype using Autodesk Inventor 3D professional modeling tool, and a final presentation pitching their proposed solution to a ‘grant’ review committee consisting of local engineers from the community, the city water manager and the school’s principal. Upon project completion Steve Brown of the Pearson Foundation commented “The fact that Bryan is now having his kids think of the world around them as their classroom, while not new, is really at the center of what we’re trying to do with this program... And frankly, it has less to do with technology or digital media per se and more to do about a mindset. The list of digital tools they used is not nearly as impressive as the fact that they want to make an impact on the city water situation in their community.”

**Northwestern High School**
Rock Hill, South Carolina

Demographics: Small City
40% Free & Reduced Lunch,
% English Language Learners

**Outcome**

Press:
eSchool News “Project Aims to Inspire the ‘Model Classroom’”
Model Classroom Blog, “Make an Impact”

Project Artifacts:
Team Presentation (Prezi): Water Conservation Project
Team Website (Weebly): Online Portfolio of work
Project Website (Weebly): Make an Impact
Photos-Project in Process: Project Process Photos

“We didn’t just sit there and learn. We actually did fun and involving work. You wanted to be there. It would be great if it [these hands-on real world projects] could be spread around to other classes.”

- Lakasha, a student of Bryan who was so inspired by the project that she spent a weekend learning HTML code for the website.
"Robotics and Social Networking"
CASE STUDY: D. Allan Bruner, High School Physics

Timeframe
Academic year

Challenge
High School Robotics students explore ways to improve team collaboration, communication, and improved mentorship opportunities for younger students.

Description
Located in a rural Oregon mill town community, Colton High School is challenged by limited resources and struggles in science literacy. Teacher Allan Bruner creates opportunities for students to engage in projects that bring science to life. Allan challenged the High School Physics students and LEGO robotics team to explore how they could use technology to improve their competitive edge, build team collaboration and begin a mentoring program that provides an early opportunity for students from a nearby middle school to get involved in robotics. The project began with team building activities to jump start the collaboration between the two schools. Students experimented with their own mobile devices and tested a social network as a means for collaboration and mentorship. As a result, students found creative ways to work together and share ideas. This mentorship resulted in students entering the High School robotics program, where they remain engaged today and continue seeking opportunities to mentor younger students.

Outcome
“Of the original high school students involved ... five are currently pursuing degrees in engineering sciences; two are officer cadets with the ROTC programs at their universities; one student continues to pursue studies to become a mathematics teacher...Our project has had some powerful impact on those moving on into post-secondary opportunities.”

- D. Allan Bruner, 2013 reflection

Colton High School
Colton, Oregon

Demographics: Rural, 33% Free & Reduced Lunch, 0% English Language Learners

"Feeding the Nation"
CASE STUDY: Andy Mogle, High School Culinary Arts & Community Service Requirement

Timeframe
Academic year

Challenge
Develop and prepare a series of meal plans for a local shelter, then document and share with the community.

Description
After attending a summer “Mission Possible” workshop, Andy set out to get his Culinary Arts students involved where nutritional education is most needed. Andy planned for his students to collaborate with local homeless shelter staff and service organizations to develop, then deliver and serve, a series of five nutritional meals. However, due to scheduling issues with the students and multiple logistics at the shelter, the project had to be abbreviated to one visit. Andy shares that his students were able to reach and serve about 20 people living in the shelter. Importantly, this event opened up a discourse on the histories that led them to the shelter, making students realize how even small issues can lead a person to homelessness.

Outcome
Andy reflected, “I used much of what was taught that summer in creating the plan. I regret I wasn’t able to fully execute the project...I know the students gained a lot of life learning from just a single event. I wish we could have completed the whole plan and returned over time so the students could experience the ongoing struggles the economically disadvantaged face every day in their lives.”

Norwalk High School
Norwalk, Iowa

Demographics: Suburban, 20% Free & Reduced Lunch, <1% English Language Learners

M O D E L C L A S S R O O M

Culinary Arts & Community Service Requirement

Norwalk High School
Norwalk, Iowa

Demographics: Suburban, 20% Free & Reduced Lunch, <1% English Language Learners

M O D E L C L A S S R O O M
The 2012-2013 program year kicked off with an ambitious six-week series of “Mission Possible” workshops at the Smithsonian Institution. Project proposals from teacher workshop attendees resulted in a continuation of the individual program, but also introduced opportunities for expanded teacher professional development programs in Kansas, Oregon and Michigan. These new programs evolved Model Classroom beyond an individual project model to a more comprehensive model reaching local educator networks. Additionally, these new programs necessitated a shift from the project-based “box” to an emphasis on the smaller practices within approaches like problem-based learning, design thinking, civic engagement and place-based education.

**2012 Workshop Approach**
The introduction of new Smithsonian museums caused some workshops to more heavily focus on museum content. However, the Mission Possible workshop remained largely an active and hands-on model. Many workshops focused on themes like community and culture; the resulting projects in case studies illustrate these themes well.

**Teacher Audience**
Expanding the audience beyond Teacher of the Year alumni, these workshops also included NEA award winners and teachers representing the CCSSO Innovation Lab Network.

**2012-2013 School-Year Program**
The level of support provided to individual projects was significantly less high-touch. While some teachers embarked on their second year with Model Classroom, many new teachers took the idea of community and civic engagement to heart in their project design, resulting in more local support. 2012-2013 began the professional development programs in Kansas and Oregon, prompting Model Classroom to develop systems in support of more incremental versions of project-based work, as well as strategies for documenting and sharing these efforts.

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### 2012 - 2013 Case Studies

**Adele Bravo**
*The World is Our Family*, 1st Grade. Additional Teacher: Mallory Bravo.

**Lucy Popson**
*I Am One of a Kind*, 3rd Grade

**Laurie Graves**
*The Then and Now of Sheridan County*, 3rd Grade. Additional Teacher: Lamont Clabaugh

**Katie Sullivan**
*Take a Stand on the Land*, 3rd & 4th Grade. Additional Teachers: Prudence Krasofski & Heidi Hill

**Jackie Cooke**
*Salmon Run*, 4th & 5th Grade. Additional Teacher: Paul Chambers

**Hannah Walls**
*Preserving Appalachia*, 6th Grade Language Arts

**Beth Oswald**
*What is Culture?*, 7th Grade

**Chris Delponte**
*Project Invent*, 6-8th Grade. Additional Teachers: Matt Heuser (GTT/Engineering), Darci VanAdes-tine (Art/Design), and Genny Lambert (World Cultures/Spanish

**Elizabeth Firnkes**
*Middletopia*, Middle School.

**June Teisan**
*Detroit 1933/2033*, Middle School. Additional Teachers: Alexandra Beets, student intern; Kelly Her-berholz, student intern; Christina Pettier, art teacher
CASE STUDY: Adele Bravo, 1st Grade

**Teachers**

Adele Bravo,  
Kohl Elementary  
Mallory Bravo,  
Hanson Elementary

**Timeframe**

Academic year

**Challenge**

How can our attitude of being a “family” make a positive impact in our home, our classroom, our school and the world?

**Description**

The World is Our Family encouraged students to tackle real world issues and creates a sense of responsibility for their classroom, home, school, state, and world. This year-long unit built on a previous collaboration and celebrated the diversity of language, culture, ability, family structures, class, ethnicity, and gender. Coming from two very different schools, Adele and Mallory integrated a pen pal system as a method to do authentic reading and writing. The first grade classes from each school engaged with each other, exploring their own identity, sharing what makes them unique and what similarities they have with other students. They looked to their own family, gaining and sharing an understanding of different family structures, then to their classroom, seeing it as their first “family community” outside of their home, a place where they learn how to build community. Finally they viewed the world as family, trying to understand cultural and family traditions and their connections to other groups. The project concluded with a field trip to meet their pen pals.

**Outcome**

“Watching the children work together has been amazing. They read, wrote, researched, problem-solved, thought critically, investigated, evaluated, the list goes on and on. Our journey took us to places of learning that no textbook or curriculum guide will ever approach. From names on a piece of paper . . . strangers . . . to friends and coworkers. These children teach us that though we may approach life and learning from different perspectives, our personalities, experiences, abilities, and attitudes are the strength of who we are. When we focus on a task, this is the energy and tenacity that will see it through.” - Adele Bravo

**Video**

http://www.youtube.com/watch?v=s5SHWqPP988

**Press**

http://ceapathways.org/2013/05/07/family-team-teaching-captures-spirit-of-national-teacher-day/

CASE STUDY: Maria Lucy Popson, 3rd Grade

Timeframe
Academic year

Challenge
Identify local needs and work collaboratively to advocate for and take action.

Description
I am One of a Kind is more than a project; it’s a set of practices that speak to a belief in students developing their own interests, building empathy for others, and empowering students to take action and make a difference. Centering her 2012-2013 work around the existing student “Caring Crew”, Lucy’s work illustrates a consistent practice of finding opportunities within students’ lives, the school, and the local community. A series of small practices— for example, student-produced videos teaching each other math concepts and student-authored animal stories to raise money for the local Humane Society— were paired with bigger ongoing projects such as a school garden, trash clean-ups, and a school-wide day of caring. These worked together to help students define themselves as unique individuals capable of impacting their community. In Lucy’s words, “This is about a child-centered philosophy of teaching and learning. The projects are ways to teach and encourage my students to reach their full potential in 3rd grade and to plant the seed to continue with this way of thinking (caring, working collaboratively, influencing others, taking action) throughout their lives.”

Outcome
Despite the significant challenges often presented in high-poverty schools— students reading and writing below grade level, an emphasis on testing, and a less flexible instructional approach— Lucy shared that Model Classroom-like work is essential for her students to build confidence beyond their test scores. Because of minimal time in the school day, Lucy established an after-school club for her Caring Crew.

Lucy reflected, “I understand the Model Classroom does not emphasize test scores; however, my students’ Spring 2013 AIMS [Arizona Instrument to Measure Standards] scores in both reading and math were above the state and district average. Participating in the Model Classroom projects helped my students learn about the importance of community service. Because the students were constantly writing, reflecting, and sharing about the outcomes of their missions they were practicing reading, writing, listening, and speaking skills. The high test scores were a result of their discipline and love of learning. The students had a real purpose for writing, investigating, and presenting.”

Local Press: Letters to the Editor regarding littering.
CASE STUDY: Laurie Graves, 3rd Grade

**Additional Teachers**
Lamont Clabaugh

**Timeframe**
Academic year

**Challenge**
Share the history of Sheridan County, then and now, with the community, and take action to preserve it for the future.

**Description**
While investigating their local county history, students were challenged to recognize their role in the community and ultimately realize the importance of stewardship for the county’s land, history and culture. Students began by researching their local history through many first hand experiences including museum visits, local resident interviews and visits to places representing the current culture. Challenged to find ways to make “A Better Community”, students chose to investigate recycling. They conducted hands-on research to determine the need for a recycling program through a school survey, town trash pickup and visit to the local Landfill and Recycling Center. Students then developed a proposal for a school-wide recycling program, interviewed the principal to address their concerns and began to carry out their plan. Having the students take action by implementing their idea was key to bringing their study of the then and now of local history full circle. The end of the school year was not an end for the project; student work on the recycling program continues.

“They were very invested in making a difference for the now and the future of the county and are fired up about continuing with the recycling efforts.” - Laurie Graves

**Big Horn Elementary**
Big Horn, Wyoming

**Demographics:** Rural, 19% Free & Reduced Lunch, 0% English Language Learners

**Outcome**
Aside from meeting a wide range of Common Core and local standards, this project had a real impact on the participating students and the surrounding community. Students informed the school about the importance of recycling, developed systems to improve recycling options and implemented a school-wide recycling program that involved all students, other teachers, school principals, school custodians, and the county recycling center. Students also reported increased recycling and reusing of materials at home. In order to be successful in this process, students had to think beyond their own personal needs to consider the needs of the larger community and the local environment. Collaboration went well beyond the classroom and included working with peers, students across all grade levels, adults, and a variety of local experts.

“Making the project student-driven allowed multiple opportunities for students of all skill levels and interests to participate and be part of the process.” - Laurie Graves

**Press**
Big Horn Teachers Challenge Students to Engage
CASE STUDY: Katie Sullivan, 3rd & 4th Grade

"Take a Stand on the Land"

Additional Teachers
Prudence Krasofski & Heidi Hill

Timeframe
3 weeks

Challenge
Students decide if their town should prohibit development on its publicly owned forest, then persuade voters on Town Meeting Day.

Description
Voters of Warren, Vermont were set to decide whether to put a town-owned parcel of land known as the Eaton parcel into conservation and forever prohibit development. The parcel abuts the Warren School property and is home to an interpretive nature trail used by the school on a regular basis. Students investigated the parcel of land, decided how it would best serve the community and tried to persuade the voters. Their investigations involved visiting and documenting the parcel of land, talking to experts and community members, participating in a forum and conducting first hand research. Students were actively engaged in exploring forms of influence, strategies for gaining and sustaining attention constructively, and civically working to achieve real world goals. But most importantly, the students discovered that they have a voice. They have an opportunity to make an impact on their world and see the direct results of their actions.

Outcome
Although the Conservation Committee decided to withdraw their request for the easement, students were able to plan an “Eaton Symposium” where all 3 classes were able to share their work with their peers, the school, and community members and leaders.

Warren School
Warren, VT
Demographics: Rural, 36% Free & Reduced Lunch, 0% English Language Learners

Katie Sullivan and one of her students presented the project at an ed-tech conference in the fall of 2014. The student shared how he produced an iMovie about the project by using slide shows and Keynote presentations, then showed an excerpt at the conference. Katie stressed that Project Based Learning does not have to be an add-on to the curriculum and that allowing the students to take lead roles in the technology integration means that the teachers can go beyond their personal comfort levels and achieve amazing results!

Press
“Salmon Run”
CASE STUDY: Jackie Cooke, 4th & 5th Grade

Additional Teacher
Paul Chambers

Timeframe
7 Months

Challenge
Persuade and educate others to engage in actions to help protect the local salmon population.

Description
Salmon is a major industry and important part of Oregon’s livelihood. Hogan Cedars Elementary 5th graders teamed up with 4th graders downriver at Deep Creek Elementary to discuss salmon preservation and ways to raise awareness. While 5th graders explored the importance of salmon to local Native American tribes through art, folktales, and resources at the Smithsonian Center for Learning and Digital Access; the 4th graders were busy raising and releasing salmon. Students shared updates on Google Hangout, including videos of the salmon release. The collaboration resulted in student-created S4STS, Students For Saving The Salmon. With the support of Jeff Uebel, a local biologist and fisheries expert from the US Forest Service, students built a website, an online survey and an interactive science fair featuring QR codes to their website. Student-produced PSAs were broadcast on local cable, and Hogan Cedars students took the initiative to get their message on the school’s outdoor billboard and make school-wide announcements about S4STS.

Outcome
The Students for Saving the Salmon (S4STS) website Project Publication: Integrating Math, Science, ELA, and Technology through Challenge Based Learning Project

Jackie shared, “When students started taking action to get the word out about ways everyone could work to protect salmon, one of my students took it on herself to set up an appointment with the principal and, as a result, did a presentation about our project at a whole school assembly.” Although Jackie has now retired, another teacher in her school was so inspired by the students’ presentation of the project, that continues Jackie’s efforts and collaboration with Paul during the 2013-2014 school-year.

Press
https://docs.google.com/file/d/0B3egQGHDFcTacTBYR3hkZi1yc1E/edit?usp=sharing
Timeframe
8 Weeks

Challenge
Students explored issues and consequences of stereotypes within local Appalachian culture, then created an exhibition and production honoring their local traditions and relics.

Description
Appalachia has a rich culture full of unique traditions and an impressive heritage, yet many negative stereotypes persist. 6th grade teachers used this as a springboard to teach respect, explore the consequences of stereotypes, overcome adversity, and work together to curate an exhibition. They investigated local Appalachian culture by working with local experts like Tammy Horn, professor at Eastern Kentucky University and specialist in Appalachian cultural traditions; taking a field trip to Logan Hubble Park to explore the natural region; talking with a “coon” hunter and other local Appalachians including quilters, cooks, artists, and writers. Finally, students connected virtually with museum expert Rebecca Kasemeyer, Associate Director of Education at the Smithsonian National Portrait Gallery to discuss exhibition design. For their final projects students produced a series of works exhibiting Appalachian life, work, play and community structure including a quilt, a theatrical performance and a website.

Outcome
Students created Project Playhouse, a live production for the local community. Audience members included community members, parents, and other students. In addition, students designed a quilt sharing Appalachian history, and recorded their work on the Preserving Appalachia class wikispace.

Hannah reflected that her students were “able to learn the way they learn naturally, every student gets a chance–there is no longer one best way to accomplish a task. Students are not just mimicking what their teachers are writing down; they are now creating, problem solving, and working together to reach their individual goals…. This [approach] challenges students to go beyond their desk and produce not just ‘dumpster projects,’ but projects that are meaningful, useful, and innovative.”

“We hope to share with many people this piece of Appalachian culture and teach them that their negative stereotypes are not true. We also hope that when people walk away from our theater they can say that they learned something new about the Appalachian culture.”

- Morgan V, student.
CASE STUDY: Beth Oswald, 7th Grade

“What is Culture?”

**Timeframe**
4 Weeks

**Challenge**
Investigate and market the unique cultural qualities of Evansville.

**Description**
7th graders were challenged to discover what culture means to them and their community. They explored the unique qualities of culture by investigating their families, peer groups, school, and the Evansville community. Then, working together, they created digital products designed to “sell Evansville” - an effort to encourage people to join their small community and keep it thriving. This project enabled students to explore how cultures differ in a variety of ways: language, rules, stories, legends, and symbols. But together, these unique cultural differences create the core of a community, what makes it special and unique, and how these cultural differences enhance their own lives.

**Outcome**
"The result is a collection of websites created by teams of students that market the city of Evansville….Students were told they were to work as an advertising agency, creating a website …to encourage people to come to their city. When they were done, the students gave presentations to a panel of community experts including the mayor, a local historian, an alderperson, retired teachers, school administrators and longtime residents.”

Student Website: cometoevansville.weebly.com

**Additional Teachers**
Matt Heuser (GTT/Engineering), Darci VanAdestine (Art/Design), and Genny Lambert (World Cultures/Spanish)

**Waukesha STEM Academy**
Middle School Campus
Waukesha, Wisconsin

Demographics: Suburban, 18% Free & Reduced Lunch, 2% English Language Learners

CASE STUDY: Chris Delponte, 6th-8th Grade

“Project Invent!”

**Timeframe**
3 Months

**Challenge**
Research, conceptualize, and design a new product that could be taken to market.

**Description**
Project Invent got students thinking about innovation, specifically, “How do companies innovate new and revolutionary products?” Each grade-level focused on inventing new products that met certain constraints and requirements. 6th grade focused on toys, 7th grade on engineering a mechanism or automation, and 8th graders chose their focus. Students learned the new product development process by researching, conceptualizing, and designing a new product. Students were responsible for identifying industry experts and local businesses to support their process. Each student maintained a digital project portfolio in order to capture, analyze and reflect on their progress. Students brought a wide variety of knowledge to this project and were able to personalize their learning, researching content as needed in a method that suited them. Students presented their final products and offered workshops at the STEM Academy’s Invention Convention which was open to students, parents, and community members.

**Outcome**
“The great thing about Project Invent is that it really put students in control of their own learning. Their final inventions were truly reflections of their own learning and interests.” - Chris Delponte
**CASE STUDY: Elizabeth Firnkes, Middle School**

**Timeframe**
- **Project Planning:** 2 months;
- **Project Implementation:** 6-8 weeks

**Challenge**
Create a utopian school or community based on key values and beliefs determined by the group.

**Description**
Sixth graders took a new look at their worldview. Oakland, Maine is a situated in a rural community with limited exposure to the outside world. Teacher Elizabeth Firnkes and her team created Middletopia: A Middle School Quest for the Perfect Society to immerse students into new experiences and introduce them to different cultural perspectives. The project challenged students to seek ways to build community, thinking critically about the role of religion and culture. Students built a foundation for understanding community by reading dystopian literature selections such as The Hunger Games and Divergent. Students then worked with Interfaith Maine, a non-profit organization dedicated to seeking peace and justice through deepening interfaith relationships and understanding; to organize, plan, and host an Interfaith Panel discussion including a Rabbi, Catholic Priest, a Muslim, a Hindu, and a Pagan. As a one-to-one laptop school, students were able to use a range of tools to collaborate and plan for the event. During the event, students took on roles of photographer, videographer, personal aid to panelists, and support to local press.

**Outcome**
Each panelist commented on the power of the experience, especially working with the students. At the panelists’ and students’ recommendation, Elizabeth continues this program every year, making improvements and incorporating more learning targets along the way.

**Messalonskee Middle School**
**Oakland, Maine**
**Demographics:** Rural, 31% Free & Reduced Lunch, 0% English Language Learners

**Project Website**
Interfaith Panel Press Coverage
CASE STUDY: June Teisan, Middle School

“Detroit 1933/2033”

Additional Teachers
Alexandra Beels, student intern; Kelly Herberholz, student intern;

Timeframe
Academic year

Challenge
Examine Detroit’s challenges and successes from 1933 to today, then think ahead to 2033 and plan for future redevelopment and your role in this transformation.

Description
June Teisan’s “Future Think” students conducted an in-depth examination of Detroit, a famous American auto industry icon. The city has experienced decline as a result of industry’s collapse. Detroit native June Teisan wants her students to take pride in their community and see the potential for its future. This place-based learning project combined science, technology, engineering, art, and math (STEAM) for a comprehensive examination and problem-solving process. The famous Detroit Industry frescos at the Detroit Institute of Arts served as inspiration and a centerpiece for the project. Students worked with a variety of other experts and organizations: visiting local sites like the Edsel Ford House and Detroit Historical Society, and hosting classroom guests including student advisors from the College for Creative Studies. As an advocate of student “voice and choice,” June asked students to determine how to complete the project. Project options included creating an interactive mural depicting a better future for Detroit, building an online Tinker plot of future industry development and building a website presenting solutions to the community.

Outcome
Press: “Program to join science and art through exploration”

Beyond the benefits to her students, Detroit 1933-2033 had much further impact. This classroom project was the inspiration for a summer 2013 teacher professional development workshop (see PD pages 64-65). Hosted at the Detroit Institute of Arts and designed in partnership with the Network of Michigan Educators and Model Classroom, 20 teachers participated in this workshop. Several participants are implementing similar projects in their own schools, and discussions for future professional developments are underway.

Harper Woods Middle School
Harper Woods, Michigan

Demographics: Suburban Detroit, 95% Free & Reduced Lunch, <1% English Language Learners
Model Classroom has implemented a range of professional development that is relevant to local communities. Examples include a workshop exploring civic engagement through various Washington, DC sites including the Smithsonian National Portrait Gallery; a program exploring local problems in coastal Oregon by utilizing expertise at organizations like the Oregon Coast Aquarium, and a workshop challenging Detroit teachers to get their students involved in finding solutions to the city’s ongoing financial and structural problems.

Between 2010 and 2013 Model Classroom designed and implemented a range of workshops and professional development. Each experience intentionally put teachers into the shoes of students by giving them real challenges to solve collaboratively. Throughout the process teachers were given access to experts in the local area including museums, research facilities, businesses, and news centers. Teachers were also encouraged to find relevant information sources on their own. Teachers experienced approaches like problem-based learning, design thinking, civic engagement and place-based education first-hand, all the while using technology purposefully, integrating subject matter, determining standards alignment, and building a range of 21st century skills.

Importantly, each workshop and program built-in time for teachers to reflect and apply the experience by designing their own practice, classroom activity, or project to implement. Some of the projects designed are represented in the Teacher Case Studies section.

Summer “Mission Possible” Series: 2011-2013

Teacher-Initiated Professional Development

Model Classroom Design Team, Shawnee, Kansas

Detroit 1933-2033, Detroit, Michigan

Project SEAL, Lincoln County School District, Oregon
Teacher-Initiated Professional Development

Some program participants have initiated professional-development opportunities for their own communities in partnership with Model Classroom. These partnerships began in the fall of 2012, and are more personalized to local communities and resources and needs.

Model Classroom Design Team
Location: Riverview Elementary School; Shawnee, Kansas
Initiated By: Jeri Powers (2007 Kansas State Teacher of the Year)

Description: The Model Classroom Design Team was a school-based model. A hands-on professional development opportunity, the intention was to help teachers to reflect on their own practice and apply small changes directly in their classroom over the course of the school year. The Design Team aimed to make teachers the true designers of the experience as they developed ideas for direct implementation within their classroom—focusing on 21st century approaches to learning: specifically student-driven learning strategies, problem-based learning, leveraging real world learning opportunities, and authentic technology integration. Eleven teachers from grades 1-3 participated.

Outcomes: The Model Classroom Design Team did not meet all of its intended outcomes, but as a result learned many important lessons that were applied to other school-year professional development models. Notably, the teacher cohort felt frustrated by the open-ended “design” assignments provided to help them develop smaller practices. Recognizing this hurdle, Model Classroom created more concrete templates and systems for future work with another project (Project SEAL; see pages 66-67). Additionally, while many teachers were motivated to develop their practice and implement activities and projects; communication, documentation and sharing were difficult due to a lack of tangible incentives. In the similarly designed Project SEAL teachers received grant-funded stipends and iPad minis. These incentives paired with high expectations for program participation made a noticeable difference in getting results to publish and share.

Summer “Mission Possible” Series: 2011-2013
Location: Washington, DC and New York, New York
Audience: State Teacher of the Year award winners; teachers representing CCSSO Innovation Lab networks (2012 only)

Description: What does “being a part of something and being responsible for something” mean? How might educators enable today’s youth to be active and contributing citizens? These week-long summer workshops were centered around key questions like this, often on the theme of civic engagement. Each workshop focused on 21st century learning practices, taking a hands-on approach to compel teachers to explore real world learning experiences. The workshop design challenged teachers to collaborate and problem-solve around daily missions while utilizing museums, organizations, interactions with the public, new media tools, and each other. Throughout each active challenge, teachers developed and produced solutions, then reflected on how their work process connects to 21st century learning opportunities for their own students.

2011 Collaborators: Smithsonian National Postal Museum, ARTLAB at the Hirshhorn Museum and Sculpture Garden, Smithsonian Center for Learning and Digital for Learning and Digital Access (formerly SCEMS) [Each workshop held at one collaborator’s site.]


2013 Collaborators: National Portrait Gallery (on-site workshop), National Public Radio, Vietnam Veteran’s Memorial Fund, United States Holocaust Memorial Museum, Library of Congress, the Newseum [All workshops represent field trips to collaborator’s site.]

Outcomes: See Teacher Case studies for all three program years (pages 14-59). In addition, the professional development listed below was all proposed by teachers attending Mission Possible.
PROFESSIONAL DEVELOPMENT

Project: Project HOPE | High School visual arts teacher Jelane Richardson and second grade teacher Kim Morrison collaborated on “Project HOPE.” Focusing on wide open spaces within Detroit, older and younger students worked together to translate their ideas about “home” into designing homes and communities they want for their city. Students will present their plans to a public audience in December 2013.

Project: Inventing Places | Seventh grade teacher Jenna Purdu designed “Inventing Places” challenging her special education students to reinvent vacant spaces in their communities. Students drew inspiration from local nonstandard projects like creating a BMX park and transforming an abandoned ramshackled public playground in something useful to the community.

Detroit 1933-2033
Location: Detroit Institute of Arts; Detroit, Michigan
Audience: Local teachers; application-based process
Initiated By: June Teisan (2007 Michigan State Teacher of the Year, see pages 20, 58-59) and Mattinga Ragatz (2010 Michigan State Teacher of the Year) represented the Network of Michigan Educators, a network of award-winning Michigan educators, in designing and implementing this workshop.

Description: Detroit is in a time of enormous change and transformational shifts that require reimagining and rediscovering itself. How might educators and students play a role in this renewal and have a positive impact on Detroit’s future? How might today’s youth be active contributors in their community? The Detroit 1933-2033 (D33) Summer Teacher Institute gave teachers first-hand experience exploring these challenges, as well as an opportunity to identify ways for students to make an impact in the city’s future. Participating teachers took on the roles of creator, producer, publisher and much more while exploring the Detroit Institute of Arts (DIA), the Detroit Historical Museum, the local Detroit community, and working with a variety of local experts including local entrepreneurs, community advocates, Wayne State University professors, and a journalist from the Detroit Free Press. Using the design thinking process to identify a problem, teachers worked in teams to actively problem-solve, identify and develop an opportunity for their students to take action, and present their proposal to a public audience.

Outcomes: Participating teachers and organizations including the Network of Michigan Educators and the Detroit Institute of Arts would like the D33 work to continue in upcoming years. Initial discussions for future work are underway. Additionally, several teachers are implementing work as a result of the program.
Project SEAL

Location: Lincoln County, Oregon

Initiated By: Ruth McDonald, Community Curriculum Resource Liaison

Description: Project SEAL (Students Engaged in Authentic Literacy) is a two year US Department of Education Innovative Approaches to Literacy Grant. Model Classroom was invited to be the professional development partner for this grant after the grant program manager attended a Summer 2012 Mission Possible workshop. Each participating organization has committed financial and/or human resources as part of this partnership. Nearly 90 educators including classroom teachers, library and media assistants, and school principals have participated in SEAL. SEAL exists within the context of community organizations representing a range of ocean literacy work including the Oregon Coast Aquarium, the Hatfield Marine Science Center, Oregon State University and many others. SEAL increases library resources, provides iPads to participating schools and provides ongoing teacher professional development.

As the professional development partner for SEAL, Model Classroom empowers teachers and students through a student-driven and hands-on approach. Educators are encouraged to make small changes over time and integrate SEAL into what they are already doing. To begin, participants identify a goal focusing on practices like: using local resources, educational technology, 21st century competencies, and student-driven learning. Support in reaching these goals begins with intensive community-based workshops. Workshops are designed as immersive experiences, challenging educators to try new approaches, putting educators in the role of their students and challenging them to problem-solve collaboratively using community resources and digital media. Following the workshops, the partnership spans six months of the school-year and uses a blended approach combining assignments that challenge educators to test new practices, an online community, monthly group meetings, and classroom observations. In addition, building community within and outside the school is encouraged, helping educators tap into expertise within community organizations, their colleagues, themselves and ultimately their students.

Outcomes This project will continue through the spring of 2013. Outcomes from the first program year (2012-2013), include nearly ten completed projects centered around issues of ocean literacy. In addition, many teachers tested new practices and strategies throughout the school-year, building their practice in a smaller and more incremental way.

Project: Tsunami Survival Challenge | Knowing the threat of a tsunami is very real to the Oregon coast, Eddyville Middle School teacher Sean Bedell challenged his students to design and construct a wooden evacuation tower model that can withstand three different sizes of tsunami waves, including one generated by a magnitude 9 earthquake. Students also developed plans to prepare the community for a tsunami. Read more on our blog.

Project: Beach Pollution | Teachers Jenna Samoylich & Amie Lundquist challenged their 4th graders to investigate the impact of Japanese tsunami debris on their local Oregon beaches, then develop ways to inform the community. Read more on our blog.

Strategy: “Bored of the Same Old Presentation” | 1st Grade teacher Liz Postlewait wanted to give her 1st Graders more engaging options for presentations. After taking a trip to investigate local ocean tidepools, Liz asked students to take on the persona of an ocean animal, develop a written presentation, and then use an app called Facetalk which makes any photo “talk.” Read more on our blog.
Future Work

Moving forward, this model has the potential to work alongside other Pearson Foundation programs to create larger communities of practice and recognition for the importance of this work. When considering scaling and amplifying efforts, it is important to remember the core community of practice: the lasting value of Model Classroom to-date has been an emphasis on continued relationships and communications that keep the consultation model close to the pulse of the classroom. Successful scaling must happen at all levels, not just the biggest one. Based on the evolution of Model Classroom’s three years, the following future work is recommended.

Scale-up using Current Successes: Within the existing community of practice there are many great opportunities to scale work. These include teachers still in the classroom, teachers who have moved to positions at the district-level, and those teachers actively involved in networks of influential educators. Providing various levels of tools and infrastructures to support these networks of “evangelists” could cultivate new communities of sustained practice, and new evidence for the education community to implement these engagement approaches.

- Build a toolkit and framework for self-implementation: Many educators in our network are trying to spread this work in their communities, but lack concrete tools and supports for implementation. Teachers report building their own PD programs and seeking resources to support PD, most often those developed by the Buck Institute. Providing concrete resources is the simplest step towards spreading this work. A toolkit may include pre-assessment tools, a guide to larger engagement strategies, smaller practices for testing in the classroom, case studies, and professional development frameworks at a range of levels (day, week, year) to support teachers spearheading these efforts.

- Train the Trainers: Model Classroom has cultivated networks of “teacher believers.” By training these teacher collectives to implement professional development within their schools, there is potential to create school-wide and district-wide models of practice. Thoughtful programming and support paired with concrete tools, resources, and buy-in from the district and community organizations are essential in this scenario. Important note: Incentives such as receiving new classroom technology (often grant-funded) and stipends to participants increase likelihood of getting work documented and shared.

- Partner Strategically with Existing Networks: Many teachers in the Model Classroom network have left the classroom for higher-level jobs where they have more flexibility and influence. Even those still in the classroom are networked with communities of award-winning teachers (for example The Network of Michigan Educators and Connecticut Teacher of the Year Council). Working with these existing networks could provide new opportunities for testing toolkits and spreading this work through highly-influential teaching communities.

Be more Intentional about Impacts Relative to Current Education Narrative: While most educators doing this work believe in it passionately, too few people are attempting it and many in education are focused on larger issues such as equity and testing. However, we know from teacher narratives that this work has the potential to impact many of the factors affecting student motivation, attendance, and even literacy skills and test performance. We also know that the students most frequently exposed to hands-on real world learning experiences are those in independent or specially chartered schools. By examining and evaluating how this work may impact the challenges facing the education community today, it may be possible to make some noise and better advocate these student engagement approaches for all students.

Document and Share: Efforts to share and spread the importance of this work are necessary. Future considerations should include: events featuring successful examples, growing current communities of practice, social media-based advocacy, and publishing work locally and nationally through education journals and larger publications.
CONCLUSIONS

It is essential to recognize that there is no one-size-fits-all answer to the various problems represented in the current education narrative. By recognizing and identifying the unique challenges individual teachers, schools, and districts face, it is possible to build a multi-pronged approach— including tools, resources, communities of practice, and an emphasis on publishing and sharing— to propel these efforts forward. Importantly, we must identify how student engagement strategies address the larger challenges within education. How might we make student-driven engagement approaches something more than a talking point, but a goal school leaders are advocating for and supporting at the school and district level?

THANKS & CREDITS

First and foremost, Model Classroom thanks its teaching community for their creativity, hard work, dedication, and belief in this approach. These educators are the heart of Model Classroom. Their tireless efforts to try new practices, take risks, and ultimately pursue what is best for their students future is the driving force behind this work.

We also thank the various institutions who have worked with Model Classroom teachers, including the Smithsonian Institution, the Detroit Institute of Arts, National Public Radio, the Vietnam Veteran’s Memorial Fund, the United States Holocaust Memorial & Museum, the Library of Congress, the Newseum, and many additional organizations within communities across the United States.

We also thank our colleagues at the Pearson Foundation, who have supported this work in a variety of ways. In particular, we are appreciative of the opportunity to be a part of the New Learning Institute, which provided invaluable inspiration and the push for Model Classroom to test and document new practices. This document was authored by the Model Classroom team: Tiffany McGettigan, Jane Drozd, and Brian Burnett with the help of many Model Classroom teachers.

“One of my goals with the Model Classroom mission is to provide a balance between the rigorous curriculum and the affective and social aspects not covered in state tests. Many students may never earned an A+ on a test, may never be honored as a scholar, but with the Model Classroom there will be always a chance for these students to shine by using their unique talents in civic engagement.”

-Lucy Popson, Tuscon Arizona 3rd Grade teacher and Model Classroom participant