

Empowering Peer-to-Peer Learning in Sto-Rox

A CASE STUDY | JUNE 2018

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— WITH SUPPORT FROM —

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EXECUTIVE SUMMARY

In the spring of 2018, Sto-Rox School District piloted a teacher-led professional learning format in an effort to help a cohort of 12 teachers effectively use new makerspaces within their school buildings. In partnership with Remake Learning, Sevenzo worked alongside Sto-Rox educators to capture their experience. Sto-Rox School District learned valuable lessons in the process of this initial implementation that may help other educators interested in establishing a similar peer-led structure in their own school or district. Participating teachers consistently cited that this was a professional development experience that didn't "feel like PD", but rather might be seen as part of creating a culture of learning within their schools.

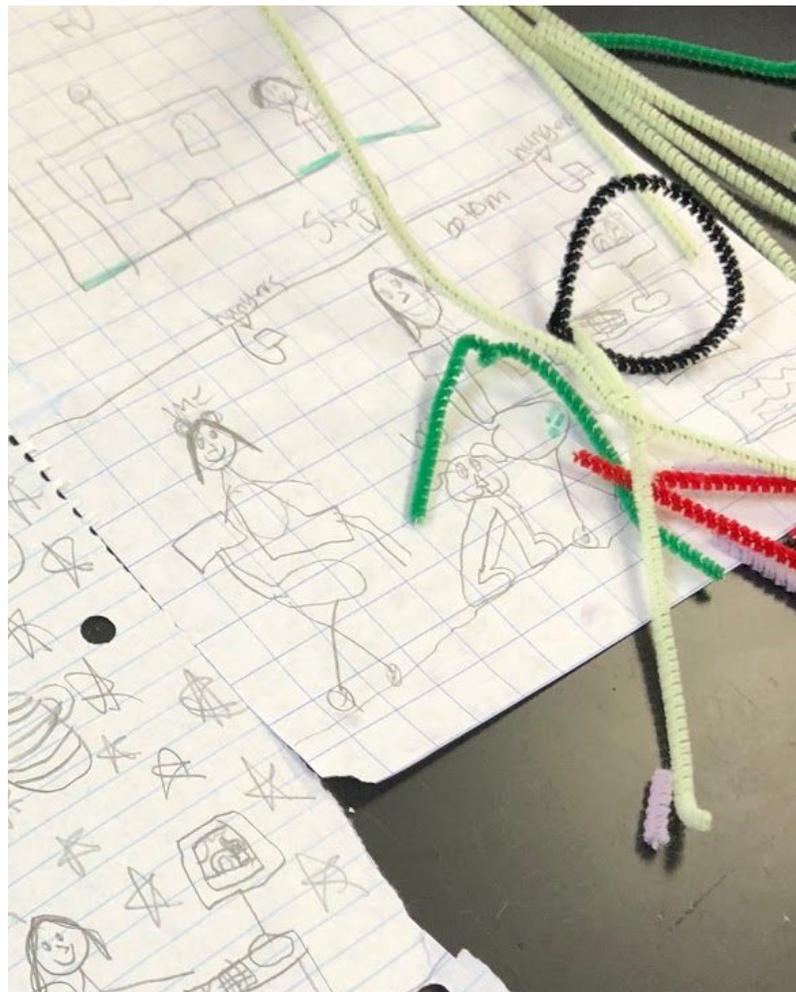
Two themes emerged: the importance of creating the conditions at the school level that would allow peer-led professional learning to flourish, and the importance of starting with a small pilot to create a structure that works and learn from an initial implementation.

CREATE THE CONDITIONS AT THE SCHOOL LEVEL	START SMALL: SUPPORT A PILOT COHORT OF PARTICIPANTS
<p>Teachers and leadership can work together to outline a professional learning opportunity with a clear purpose and how it is in service of students.</p> <p>Trust teachers to lead.</p> <p>Release time for a lead educator is a challenge, but worthwhile to accelerate implementation.</p> <p>Don't be afraid to re-imagine what professional development should look like.</p>	<p>Start with a coalition of willing participants, and offer other educators light-touch opportunities to see what they're learning.</p> <p>Collaborate with at least one colleague on design and implementation to strengthen the work.</p> <p>Use existing tools and resources to save time and create a sustainable structure.</p> <p>Strike a balance between adherence to a pre-scribed structure and iteration.</p>

By giving educators opportunities to lead, teachers and students benefit. At this time, Sto-Rox plans to gradually expand the cohort to include additional teachers, with the goal of helping 80% of all educators become proficient in use of the "A.I.M" strategies. It is clear that Sto-Rox values home-grown and teacher-led professional learning, and is committed to building on lessons from the spring 2018 pilot.

Overview

This case study introduces an example of teacher-led professional learning in the Sto-Rox School District (Sto-Rox), and recommends ways of supporting this type of peer-led learning in schools and districts across the region. In partnership with Remake Learning, Sevenzo worked during the spring of 2018 to study how Sto-Rox is supporting teacher-led peer professional learning. Our goal was to understand and describe what that experience is like for teachers, and outline the benefits and challenges of this non-traditional format for professional learning. This case study can serve as a guide for other districts and schools who are interested in supporting teachers in the same ways.



THE LANDSCAPE OF PROFESSIONAL LEARNING MODELS

The purpose of this project was to capture and learn from a teacher-led professional learning model that has the potential to improve teacher engagement, professional learning, and impact on students, but that is not commonly seen in schools and supported by districts. Research on professional learning shows that there is often a discrepancy between the opportunities offered and what teachers gain as a result.

As a field, we know that effective professional development (PD) is ongoing, social, and tied to opportunities to practice (Garet et al., 2001; Desimone et al., 2002; Supovitz et al., 2000), and yet professional development of this type is not being implemented with high quality outside of a few places (Bill and Melinda Gates Foundation, 2014; TNTP, 2015). There is also compelling evidence indicating that collaboration represents best practice, however teachers in many schools continue to work in isolation (ASCD, 2004). For instance, only 7% of those surveyed by BMGF (2014) reported access to strong collaboration models.

Of importance to the work in Sto-Rox, nationally teachers report they have little to no influence on their own PD and that school and district leaders are the primary PD decision-makers (Corwin, Learning Forward, NEA, n.d.; Education Week, 2017). In addition, teachers cite that ongoing formal education, regular collaboration with peers, and self-selected PD are the three highest-rated career supports (NNSTOY, 2017). Peer-led professional learning models that incorporate educator ownership and ongoing collaboration align to what research indicates is effective.

A BRIEF BACKGROUND ON STO-ROX AND PEER-LED LEARNING

The Sto-Rox School District is just west of Pittsburgh, and its three buildings serve approximately 1,300 K-12 students from McKees Rocks and Stowe Township. In recent years, the district has included teachers in the process of reimagining what Sto-Rox could offer students. In 2016, in response to several consecutive years of leadership turnover, the district went through a teacher-led restructuring process and created new school configurations to better support student learning (WESA, 2017). In addition, in 2017 district leadership embraced a STEAM strategy to improve student access to these subjects, with help from neighboring districts and the Remake Learning Network. A STEAM grant in 2016-17 paid for initial equipment in the high school. This was described by Principal Tim Beck as a way to ensure that Sto-Rox students have access to the same educational opportunities as students in neighboring districts, and to prepare them to be competitive beyond Sto-Rox. To make best use of this new curriculum, teachers would need training and support. Science teacher Anthony Martini was selected by his principal to attend an Agency by Design training and bring back what he learned to the Sto-Rox school community.

In 2017-18, additional grants through Robert Morris University, the Ohio River Consortium, the Grable Foundation, and the Allegheny Intermediate Unit (AIU) supported the creation of a dedicated makerspace in the high school and the same effort in the elementary buildings. Instead of dedicating the funds solely to materials for these spaces, the district decided to invest in a professional learning model that would support teachers in using these spaces strategically.

School and district leadership engaged Mr. Martini, in partnership with Brian Rhindress, Communities in Schools Site Coordinator, to design and pilot the Catalyst Cohort, a district-wide teacher-led professional learning model that began in January 2018. Mr. Martini and Mr. Rhindress got to work designing the structure of this new professional learning opportunity, pulling together ideas they had gathered through their exposure to networks like Remake Learning, the AIU, Agency by Design, and Project Zero. Their goals were to support a self-selected group of educators as they used these new STEAM tools and spaces to better support their students, and to continue to build a positive narrative about the good things happening at Sto-Rox.

SCOPE OF THE CASE STUDY

Taking place in the spring of 2018, Sevenzo had the opportunity to study the Sto-Rox model during its first few months as a pilot. Within the scope of our project, we did the following:

- Observed teacher-led learning in both the high school and middle school settings
- Conducted two teacher focus groups and joined a design session with participants to plan for continuation of their group in 2018-19
- Interviewed the high school principal, lead teacher Mr. Martini, and Site Coordinator Mr. Rhindress
- Reviewed program materials, including lesson plan templates, slide presentations, and pre- and post-experience teacher surveys

GETTING STARTED: RECRUITMENT, STRUCTURE, AND “A.I.M.”

To get started, the school leaders and Mr. Martini approached teachers from each of the three Sto-Rox schools and invited them to participate, resulting in a cohort of twelve participants representing diversity in grade level, subject area and years of experience in the district. Choice to participate was an important guiding principle in establishing the initial cohort, and the recruitment approach was intended to give those who might have an appetite to try something new the opportunity to elect to join.

The cohort kicked off in January 2018 on a district in-service training day to allow all participating teachers to meet one another and ground their experience in a shared understanding of the cohort purpose and goals. In his planning, Mr. Martini pulled together elements from different trainings to try to best meet the needs of the teachers. Their shared goal as cohort participants was *“to understand and develop an AIM teaching mindset,”* which consists of three key programmatic elements:

Agency by Design
Inquiry-based learning system
Makerspace as a tool

It was important at the beginning of the experience that participants had a shared understanding of these key elements. Training during the in-service day focused on defining each in detail.

- **Agency by Design:** An initiative to design assessments that measure student growth in agency, curiosity, grit, happiness, and creativity. Agency by Design is a research project led by Project Zero, investigating practices and pedagogies of maker-centered learning.
- **Inquiry-based learning system:** A learning process where students are not given all of the answers and should think critically to create a means to an end. Generally, this type of learning develops skills of critical thinking, coping with failure, constructive criticism, and creativity.
- **Project-Based Learning (PBL):** An approach to learning whereby students work on a project that requires them to use deep content knowledge and problem solving skills to design or produce something.
- **Makerspace:** The equivalent of a science lab made relevant to all content areas, that leads to creativity and critical thinking while engaging students’ personal interests. This space may be used for lessons that invoke agency, inquiry, and PBL.

These definitions provided a common framework to guide cohort participants in setting goals for their students within the makerspace.

PARTICIPANT EXPECTATIONS AND PROTOCOLS

Expectations were set for the cohort during this first introductory session, positioning participants as equals in learning and leading. These tenants of cohort participation established the experience as one that valued each teacher's contributions and gave each a voice in shaping their own learning.

- ***Education is an amoeba that is ever changing. So is this cohort.*** The cohort would adapt to the needs of its members and share leadership responsibilities. This was shared as a tenant to empower the group and build confidence.
- ***The leader is an equal.*** The learning format should be structured to support agency and empowerment of the participants.
- ***Fun, friendly, family.*** The experience of participating should be fun and invigorating, and not feel like additional disconnected work.
- ***Not just for us.*** The cohort would intentionally capture and share information about this program with anyone who might listen.

The introductory meeting was also an opportunity to introduce participants to the structure of the cohort experience. Mr. Martini had release time each Tuesday to visit participating teachers on a rotating basis—one week in the high school, the next in the primary schools—for approximately seven visits per teacher throughout the semester. His class was covered by a substitute, which accounts for some of the costs associated with this learning model.

- **Lesson workshop:** During the introductory session on the in-service day, participants were given time to plan out their first lesson using a template. They were asked to design a theme and content to cover, and develop a lesson using the “AIM” teaching strategies. They worked in small teams to brainstorm and exchange feedback, thinking about student engagement, the lesson, materials, and execution. This template and process would serve as a model for future lesson planning.
- **Classroom visits:** Participants were joined by Mr. Martini in their classroom once every other week. These visits were an opportunity for Mr. Martini to model a lesson, the participating teacher to try a lesson, or the pair to co-teach. Teachers selected class periods for visits that worked best in their schedules and were visited 5-7 times during the spring semester.
- **Communication:** Participants were asked to be responsive to emails in between classroom visits, or to make time to chat informally about their plans for their next visit.
- **Capturing the work:** Examples of lessons, student engagement, and peer feedback were to be captured using SeeSaw, an online tool where participants could share their own work and view the work of others. Participants were asked to post once every two weeks.

The intention was to start teachers off small by having them engage in their own making activities. This also provided an opportunity to dispel misunderstandings, for example the idea that you can only design project-based lessons that allow for student inquiry, or that project-based lessons all must have a component of inquiry when in fact many spell out instructions step-by-step.

This professional learning model was designed to be a gradual release for the participating educators, starting with inspiring and supporting them through initial lessons, and eventually leading to teachers being ready to lead their own lessons in the space without support.

REFLECTIONS FROM COHORT PARTICIPANTS

To understand how these elements came together for the cohort during the semester, we offered participants the opportunity to join a focus group. Eight teachers across the three Sto-Rox schools participated and offered their insights about several specific program areas.

Motivation to Participate in the Cohort

Participants were interested in the cohort because of the potential value for their students. They saw the cohort experience as an opportunity to add a “tool in the toolbox, something that’s creative.” They valued the learning approach and what it could do for their students. Several mentioned previous experience with inquiry-based learning, and all liked the idea of students being able to learn in a new space. Participants shared that they were excited to participate because:

“Now I’m looking at everything I teach... How could I turn this into a project? How could I go down to the maker space with this? It becomes a different lens.”

“That’s why I want to be a part of this - to see if they can learn something. And not just say, remember when we did that project and we made that? I don’t know how to define volume, but I made that project.”

Participants learned new ways to approach their content, and saw an opportunity to provide students with a new learning experience in collaboration with their peers. It was clear that they had a renewed energy from learning to adapt their content in this way.

Coaching Sessions and Planning

Feedback about planning or delivery of lessons was described as “informal.” The planning process for sessions happens during preps, during quick conversations in the hall between classes, or via email before school visits. Participants shared that it was “great to run ideas by” Mr. Martini. Some educators had a limited number of lessons in the makerspace this year, and seemed unclear about their schedule to visit the space or the need to plan.

The main challenge cited by participants related to instruction in the makerspace was the need to have “some way that you’re measuring what students are doing and what they’re learning,” and to “balance participation and engagement with true student learning.” It is important for them to know that students are engaged learners while in the makerspace, and not just on-task. Participants shared that they wanted to provide students with structure and learning goals for the completion of their projects in the makerspace, while still encouraging and allowing for creativity.

Capturing Student Learning and Knowledge of What Works

Participants stated that using SeeSaw for documentation and peer feedback was a challenge. Examples of lessons, student engagement, and peer feedback were to be captured using this online tool, but it was seen as “something else to do, another tool that we don’t really use.” Participants were asked to post once every two weeks. Teachers were happy to talk through what they had been working on with students in the makerspace, and had informal conversations with Mr. Martini about their lessons during session visits. In the future, documentation of what has worked with students and what they are learning in the space could be strengthened.

All participants shared that it would be nice to spend more time together to share ideas and learn from what each other is doing. Coordination among participants, especially at the high school, was cited as a challenge since they’re across departments and spread throughout the building.

Snapshot of Participant Survey Results

(Given Pre and Post Catalyst Cohort Experience by Sto-Rox, 2018)

(Pre) What student skills would you like to improve through innovative teaching strategies?

"Creativity and problem solving"

"Working collaboratively"

"Self-direction, idea development, persistence/resilience"

(Post) How have you changed your classroom goals throughout the cohort program?

"I have been allowing students to problem solve on their own more"

"Making the students more self-directed"

"I have tried to incorporate projects that have real-world applications that can be used in the workplace."

(Pre) What are you measuring in your classroom?

"Understanding and application of content"

"Reading and math skills"

"Students' ability to problem solve"

(Post) What new classroom measurements has the program made you consider?

"Giving students more choice in their learning."

"Analytical thinking and processes as well as new strategies to present information."

"The process not just outcome."

(Post) What have you learned from the STEAM cohort this year? How have you grown?

"I've learned how to relinquish control for the sake of my students being allowed to grow through necessary struggle."

"I have found that many of the students can figure out and problem solve more on their own than I gave them credit for."

"I have learned new things which I can use in my classes to enhance student learning"



CONSIDERATIONS: HOW TO SET UP A PEER-LED LEARNING STRUCTURE

Sto-Rox School District learned a lot in the process that may help other educators interested in establishing a similar peer-led structure in their own school or district. This section reflects key takeaways shared by participants and inferred through the activities of the case study.

Create the Conditions for Teachers to Lead

Teachers and leadership can work together to outline a professional learning opportunity and how it is in service of students. In what ways is a particular topic or training in service of students? Take the time to outline goals and best thinking on how to make a vision of peer-supported professional learning a reality. It also helps to have an entrepreneurial mindset and work with a colleague or team to press through challenges and together make something happen.

Trust teachers to lead. Leadership support gives teachers permission and opportunity to try something new, while not requiring them to be closely involved. Principals at each school showed support for teachers' use of the makerspace and Mr. Martini's classroom visits. They also allowed for teachers to use district designated PD time to convene and focus on this effort. When teachers have ownership of what and how to try something new, they find professional learning valuable. Principals and the superintendent also collaborated with Mr. Martini to expedite purchasing, recruit teachers district-wide and develop shared high-level goals for the program to be communicated to participants. This level of support allowed teachers to focus on having a PD experience that was relevant to them.

Release time for a lead educator is a challenge, but worthwhile to accelerate implementation. Releasing a staff member from the classroom one day each week has been a challenge for Mr. Martini, his students, and other staff at Sto-Rox who sometimes need to cover classes or duties. The trade off, however, of spreading inquiry-based learning strategies with more educators, was seen as a worthwhile investment by school leadership. Principal Beck states that "having this learning come from teachers is important, I could not have done it." Teacher participants also cited that they wanted to learn strategies from another teacher, and having the opportunity to learn alongside Mr. Martini made the experience more appealing.

Don't be afraid to re-imagine what professional development should look like. Teachers consistently cited that this was a professional development experience that didn't "feel like" PD. However, in participating, teachers developed the skills and will to try new things with students in a safe and supportive space in collaboration with one another, building a stronger community of educators across schools and content areas.

Considerations For Getting Started

- Start with a topic of interest that supports student learning and will provide clear purpose.
- Establish a structure of shared teacher leadership and support.
- Create a predictable schedule for collaboration, modeling, and learning from each other.
- Set clear expectations for participation before you begin.
- Create opportunities to capture what is learned from delivering new lessons.
- Invite participants to offer feedback to improve the experience.
- Bring the whole cohort together to inspire and encourage one another as often as possible.

CONSIDERATIONS (CONT.)

Start Small: Support a Pilot Cohort of Participants

Start with a coalition of willing participants, and offer other educators light-touch opportunities to see what they're learning. Teacher ownership of their own learning is important, and teachers who opt in because they see value in this kind of learning for their students will be engaged and excited to learn. Participants wondered if teachers who are not in the cohort might feel frustrated by not having been asked to participate, and would benefit from knowing more about the cohort and makerspace.

Collaborate with at least one colleague on design and implementation to strengthen the work. Mr. Martini and Mr. Rhindress were able to work together to develop a proposal for peer learning, and get support from the necessary people within Sto-Rox to make it a reality. In addition, having someone to share ideas with and talk about the work teachers are doing strengthened the program for all involved.

Use existing tools and resources to save time and create a sustainable structure. During the introductory session, participants were given time to use a template to plan out their first lesson. They were asked to design a theme and content to cover, and develop a lesson using the "AIM" teaching strategies for this content. These template materials, adapted from Agency by Design, provided a road map for participants and can be used again to orient the new cohort to the makerspace, inquiry-based lessons, and Agency by Design strategies.

Strike a balance between adherence to a prescribed structure and iteration. Participants appreciated structure, and shared that more structure in planning and coaching would be helpful. In addition to scheduling times to co-teach and observe peers, consider scheduling times to debrief, conduct lesson studies to reflect on student learning, and bring participants together to keep up motivation and momentum.

WHAT'S NEXT FOR PEER-LED LEARNING AT STO-ROX

Through the pilot, educators built support for peer-led learning to continue in the 2018-19 school year.

- All twelve cohort participants plan to continue to use the makerspace, and will play an active role in supporting new educators in use of the space next year.
- The cohort intends to recruit an additional eight educators to participate, with the goal of reaching 80% of the staff across all three school buildings and helping them become proficient in use of the "A.I.M" strategies by 2021. Mr. Martini will continue to be available to support the cohort, though he will no longer have release time from the classroom.
- Leadership will ask all participants in the cohort to complete a minimum of four lessons that invite inquiry and are project-based during the 2018-19 school year.
- School-based funding has been committed to keep the makerspaces stocked with supplies.

In addition to continuation of the Catalyst Cohort, a second peer-led learning opportunity will launch in the fall at Sto-Rox, focused on integration of Google for Education tools in the classroom. This offering, which will be led by a high school spanish teacher, will benefit from and expand on what the Catalyst Cohort is learning and has accomplished so far. It will specifically focus on the ways these tools can support opportunities for differentiated instruction, especially in state-assessed subjects and grade levels. Participation in this new cohort does not require any knowledge of Google applications, and will rely on virtual monthly meet-ups to connect educators across buildings and maintain momentum.

ADDITIONAL OPPORTUNITIES

Sto-Rox has been thoughtful about each step of the roll out of peer-led learning. These additional recommendations provide opportunities to strengthen the peer-led learning model in the future, in part based on the plans Sto-Rox has already developed.

Create a rubric to create common language around what strong implementation of strategies look like.

Specifically in the makerspace or with inquiry-based lessons, a rubric would allow those not deeply familiar with the pedagogy, such as school administrators, to understand the structure and purpose of a lesson. This should be coupled with standards and learning outcomes for students as appropriate. In Sto-Rox, this is in development with expectations that a first version will be in use in 2018-19.

Capture lesson examples in an easy format, perhaps by repurposing templates to a Google Document format, to begin to create examples that can help other educators try these strategies.

Participants stated that having examples would be helpful, especially ones that illustrate how to transition traditional content appropriately in ways that work for educators. As the program grows it may become more difficult to capture what's working for students without a system in place.

Consider how participants might goal-set within any professional learning strand to track their own progress and strengthen their experience.

For the makerspace, these goals could connect to use of the tools and resources of the makerspace, and the relevant teaching strategies that support student learning.

CONCLUSION

It is clear at Sto-Rox that there is value in allowing professional learning to be home-grown, because educators have deep knowledge about what students need within the school building. By giving educators the opportunities to lead, teachers and students benefit.

Sevenzo is grateful to the Sto-Rox teachers and staff who opened their doors to let our community learn about the work they're doing to revamp professional learning on behalf of students. We're excited to see how teacher peer-led learning continues to empower educators and support student learning in Sto-Rox, the region, and across the nation.

Thank you to the Next-Gen Professional Learning collaborative for their support of this case study.



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