

The logo for POGIL, featuring the word "POGIL" in a dark blue, serif font. A light green circle is positioned behind the letter "O".

POGIL®

THE POGIL PROJECT

The background of the page is a complex network diagram. It consists of numerous circular nodes of varying sizes, connected by thin, light-colored lines. The nodes are color-coded in a gradient: red and orange on the left, transitioning through yellow and green in the center, and finally to blue on the right. The overall effect is a sense of interconnectedness and growth.

2019
Community Report



Pioneering.

Engaged.

Connected.

Catalytic.

Transforming education through community.



MISSION

The mission of the POGIL Project is to improve teaching and learning by fostering an inclusive, transformative community of reflective educators who design, implement, assess, and study learner-centered environments.

Dear Friends,

Thank you for another great year! I'm always amazed when I reflect on how much we're able to accomplish as a community.

As one NCAPP participant shared after the conference last June: "When a team's purpose is greater than its individual members, we can change the world!"

Several months ago, we asked you for one word to describe POGIL. The list of responses was long, but among them were: engaging, innovative, supportive, inclusive, transformative, and... **community**, the word we heard time and again. One longtime practitioner, Craig Teague, elaborated on his choice, saying he saw the communities that form around POGIL as multi-layered—the practitioners, the classroom, and the team. Community is in everything we do. It's who we are.

This past summer, we worked together to advance The POGIL Project's Strategic Plan at the POGIL National Meeting. We shared ideas and built strong connections at the second National Conference for Advanced POGIL Practitioners (NCAPP). Our facilitation teams coordinated well-received 3-day summer workshops in Boston, MA; Columbus, OH; and Portland, OR; and mentored aspiring authors at the POGIL Writers' Retreat in Baltimore, MD. We talked with up-and-coming POGIL practitioners at NSTA in California and ChemEd in Illinois.



In 2018-19, we welcomed more than 1,200 educators to POGIL workshops and events, and into our community.

For the coming year, work continues on our strategic plan priorities. We're focusing on overcoming barriers to participation and improving inclusivity, exploring e-delivery of POGIL activities, developing partnerships with other organizations, and creating a robust research agenda to further assess and improve our impact.

I am grateful to be part of this community, and thank you for everything you do to support The POGIL Project. We couldn't do it without you, and we wouldn't want it any other way!

Sincerely,

A handwritten signature in black ink that reads "Rick Moog".

Rick Moog

An-Phong Le

As an associate professor of chemistry at Florida Southern College, An-Phong Le was already dedicated to student-centered learning. Florida Southern is a small, private college that expects teachers to embrace active learning, and that mandate dovetailed nicely with how Le used POGIL in his own classroom.

For Le, facilitating professional relationships and developing a community of practitioners has become a significant part of his own growth as an educator. His involvement in POGIL has ultimately made him a more conscientious teacher, too. "There's a limit to the kinds of ideas I can generate based on my own experience," Le admitted, "so it's a great opportunity to see, 'Oh, this person is doing it this way. I would have never thought to do it that way.'"

Le brought this same level of reflection into his role as chair of the 2019 NCAPP committee. "Coming out of the first NCAPP [in 2017], we saw there was a demand for a place where people who had been doing POGIL already could share their findings and struggles," said

Le, who helped come up with 2019's conference theme, "Building Bridges/ Breaking Barriers."

"I think the POGIL practitioner population might all be running into the same issues but maybe they don't have someone they can readily turn to for advice or assistance," he continued. "Hopefully NCAPP helped make connections between people, to build a broader social network that you can ask things from and also contribute to."

Because The POGIL Project has such a diverse array of teachers, Le finds national meetings invigorating. "The POGIL Project and the community works and is as vibrant as it is because you have the contributions of all these various people," said Le.



YEAR IN REVIEW

NCAPP 2019

On June 24, The POGIL Project welcomed 82 experienced high school and college educators to the second National Conference for Advanced POGIL Practitioners, or NCAPP.

During the three-day event, educators across disciplines and institutions shared new ideas, engaged in in-depth discussions, interacted with a diverse community of teachers, gained a deeper mastery of the POGIL approach, and made new connections to extend community beyond the conference. NCAPP also featured four plenary speakers to amplify the conversation: Michael Bruno, Katayuon Chamany, Sylvia Hurtado, and Susan Shadle.

A huge thank you to the NCAPP planning committee for its hard work over the past two years: Chair An-Phong Le, and members Julie Boldizar, Kristi Deaver, Marcy Dubroff, Joyce Easter, Ashley Hill, Beff Mancini, Chris Mayfield, Britton Miller, Wayne Pearson, Marty Perry, Kristin Plessel, Santiago Toledo, and Gail Webster.

Thanks also to our Scholarship Partners, Wiley & Sons and Flinn Scientific, for sponsoring three teachers to attend the conference; and to the National Science Foundation for their grant to support

Many thanks to the family and friends of Tom Eberlein for establishing the Tom Eberlein Memorial Scholarship fund. As a passionate educator, chemist and POGIL champion, Tom touched the lives of many students and fellow teachers. The scholarship provides support for a Pennsylvania high school or college chemistry educator to attend NCAPP. This year, the fund awarded its first scholarship to Andi Martin, a chemistry professor at Widener University.



a plenary speaker and 27 college faculty from groups underrepresented in STEM to attend NCAPP.

And finally, thank you to all who participated to make the conference such an inspiring experience for everyone involved.

Held every two years, we hope you'll join us for the next NCAPP in 2021!



POGIL GRANTS AND AWARDS

2018 SPUR+ Grant

The POGIL SPUR+ grant program provides small seed grants of up to \$2500 to spur collaboration between POGIL community

members and promote new ideas that further our strategic plan.

Congratulations to our 2018 awardees for their project:

POGIL Physical Science Activities—Designed to Support the NGSS, led by Mare Sullivan, adjunct faculty in Science Education at Seattle Pacific University. Co-authors are Amy Steele, middle school science teacher at Cornerstone Christian Academy in Lacey, WA, and Lori Stanton, middle school teacher at Canyon Park Middle School in Bothell, WA. The team's SPUR+ grant was awarded to seed the creation of 17 new POGIL activities for middle school physical science, designed to help students master specific NGSS Performance Expectations.

The team has made great progress! They've written all of the activities and completed The POGIL Project's rigorous endorsement process.

Five content area experts have vetted the collection, and 17 teachers from across the country have tested the activities with grade 5-10

students in rural, suburban, and urban schools, and with ELL, gifted, and special education students. We anticipate publication by Flinn Scientific/The POGIL Project in 2020.



2019 POGIL PEACH Awards

Congratulations to our 2019 POGIL PEACH honorees!

The POGIL PEACH recognizes significant and enthusiastic contributions of new secondary and post-secondary practitioners to The POGIL Project.

Kristen Drury

William Floyd High School, Mastic Beach, NY

Christopher Mayfield

James Madison University, Harrisonburg, VA





Kimberly Stieglitz and Ching Yim

Kimberly Stieglitz and Ching Yim met because of their shared background as community college professors. Stieglitz is a biochemist who teaches general chemistry at Roxbury Community College, in Boston, and Yim teaches just a few hours away, at Springfield Technical Community College, in Western Massachusetts.

Right away, Stieglitz and Yim knew they faced similar challenges as community college instructors who wanted to implement POGIL. As Stieglitz puts it, their students are often “college-level but not college-ready,” and many face additional pressures: full-time jobs, language barriers, and a public high school system that left them underprepared for college-level science.

Yet, despite these roadblocks to implementing POGIL, Stieglitz and Yim both knew a student-centered approach to science was more important than ever for their students. “I have this mission because I think POGIL is a very powerful technique, and I’ve watched it transform my students into active learners,” said Stieglitz. “It’s more than just retention. It makes my students take ownership of the learning process.”

“Our problem is bringing together all these

different groups of people at different levels,” Stieglitz added. “In traditional lectures, you can fail up to 30 percent of your students every semester. But when you switch to POGIL, you empower those students who are struggling to move up with the rest of the group.”

“My mission within The POGIL Project is to promote diversity and inclusion of different life experiences, races, and ethnicities,” Stieglitz continued. “I want to get more first-generation students involved in POGIL because it motivates them.”

But trying to implement POGIL into community college classrooms on one’s own is a daunting task. That’s why Stieglitz and Yim partnered up to organize a POGIL summit aimed at community college science faculty in New England. “We know other people are interested, but we never saw them in workshops because they don’t have the money or

the time,” said Yim.

Community college students often need more scaffolding and guidance, he says, and professors interested in teaching POGIL activities in these environments need more support from one another as they experiment with what works.

Stieglitz, in turn, wants the summit to open up a space for mentorship opportunities, and lay the foundation for more systemic support of community college teachers and their professional development.

Stieglitz thinks it’s especially important to highlight how a method like POGIL is effective for at-risk students. “The 20 to 30 percent of people who drop off [in community college] can be reached,” she said. “We don’t want to lose anyone. We can be inclusive. The POGIL Project is a tool for me to do that.”



Mare Sullivan

A retired high school chemistry teacher from Washington state, Mare Sullivan is, to put it mildly, something of a POGIL legend.

In addition to sitting on steering committees, writing and publishing activities, and facilitating workshops, Sullivan has built up a powerful regional network of new and veteran POGIL facilitators in the Pacific Northwest. Sullivan also teaches part-time at Seattle Pacific University,

She adopted POGIL in the early 2000s, when she saw how the pedagogy helped close learning gaps. "It met so many student accommodations, because the teams helped one another," Sullivan recalls. "It closes a gap between low- and high-end students."

Sullivan also remembers fondly how POGIL shifted the gender dynamics in her classrooms. "All of a sudden girls were excelling in science class because there was an aspect they were better at than the boys," she says with a laugh. "Interpersonal skills!"

Since Sullivan retired, she's kicked her POGIL outreach into high gear. When asked what motivates her to go above and beyond to connect with other educators, Sullivan

demurs. It's fun to stay in touch, she insists.

Sullivan has also started a unique program, of her own design: she opens up her home to host POGIL facilitators, with the hope of welcoming new teachers into the fold.

"We have between three and 16 people who come every time. People hang out and talk about problems, questions, and challenges they have with POGIL"

In addition to hosting "summit" meetings, Sullivan has also introduced a mentoring component to 3-day workshops held in her area.

"We've made a big point of offering mentoring for the coming academic year for those people who want it," she says. "We have probably a couple dozen people a year sign up with one of the facilitators."

Plus, it works wonders for the confidence of new facilitators, says Sullivan. "It creates this feeling of, 'I've got people behind me as I do this,'" she says.



**POGIL
STORIES**





POGIL
STORIES

Sheila Barbach

Although educators are often encouraged to specialize, Sheila Barbach has taught science at just about every grade level there is, from community college to middle school.

She first encountered POGIL during her community college days, when she taught a remedial science class using the method. When Barbach started teaching middle school science at Gerrard Berman Day School in Oakland, NJ, she knew she wanted to bring POGIL with her—she just wasn't sure how.

"The challenge wasn't so much the content but the interpersonal skills," says Barbach, who does a lot of team-building with her students before launching a POGIL activity. As the general studies principal at Gerrard Berman, Barbach now uses POGIL frequently.

Recently, Barbach earned her M.Ed. in school wide change initiatives, so she often finds herself playing the role of coach for teachers who want to bring inquiry-based and student-centered learning into their own classrooms.

"What I do think I'm good at is coaching teachers to reflect on how they teach, their

own goals as a teacher, and how to incorporate inquiry-based learning into their teaching," Barbach says.

As it turns out, Barbach's commitment to coaching others might have something to do with having such a dedicated coach of her own. Her mentorship by Mare Sullivan, a veteran POGIL facilitator from the Seattle, WA, area, has helped Barbach find her footing in The Project.

"Mare is an incredible person. She's generous with her time, and she's generous with her knowledge," she says.

Now, Barbach is transitioning yet again—this time, to the role of administrator. It's made her think about how best to support teachers as they seek the professional development they need to continue growing in the classroom.

"I think when your administrator's on board," she adds, "The POGIL Project is a way for everyone to develop a shared vocabulary for what good teaching looks like."



*Since 2012**

Together, we've provided

335+ POGIL workshops

Which helped

9,100+ educators

bring POGIL to their classrooms

And reached an estimated

220,000+ students

with POGIL

* The POGIL Project's first full year as a nonprofit organization



Nyaesia Campbell

As Director of the Faculty Institute of Teaching and Learning at Miami Dade College, Nyaesia Campbell is committed to giving her faculty the resources they need to engage students.

POGIL
STORIES

When students are absorbed in their learning, says Campbell, big shifts happen in their education — and ensure their future success.

“Our goal is to improve retention rates, to engage students, and to make sure that they're prepared—whether that's to go into the career fields or to go on to other institutions,” says Campbell, noting that some Miami Dade College students transfer into Ivy League institutions.

Thanks to a grant from the Department of Education, the Faculty Institute is able to provide resources and training for three different pedagogies that give students more agency over their own learning: Peer-Led Team Learning (PLTL), Differentiated Instruction (DI), and —beginning this fall — POGIL.

PLTL “engages students in a small group outside the classroom setting,” Campbell explains, where trained peer leaders facilitate learning for other students under the direction of their professors. DI, on the other hand, encourages faculty to regularly change their mode of instruction to better meet student needs.

The POGIL method fits right into this teaching environment, says Campbell, and faculty went into the summer vacation energized by the spring POGIL workshops held on campus.

“With POGIL, you have a differentiated instruction component, and you also have the student plus faculty engagement component, which is very important when it comes to what we're trying to do,” Campbell says.

Campbell is also excited to bring POGIL to faculty members who work in the humanities and social sciences, something that she knows will be relatively new for The POGIL Project as an organization.

“Because we provide professional development across all disciplines, we open POGIL up across all different disciplines, as well,” says Campbell. “I think that makes us a little unique.”

The Miami Dade faculty who attended POGIL's summer writing retreat teach in the Education and English departments, and Campbell says she's also received enthusiastic feedback about



workshops from faculty members in fields as diverse as business, engineering and technology, media, and world languages.

The next round of POGIL workshops will help instructors write activities and prepare to implement POGIL in the classroom. A year from now, says Campbell, she hopes POGIL will be “a household name” at Miami Dade, just like PLTL and DI.

“Learning something new can be a daunting task for educators who have so much on their plate,” says Campbell. “It's great to be able to have educators walk away from professional development feeling just as confident about something new as they are about something that they're already familiar with.”



POGIL
STORIES

HASAN MAQBOOL

STUDENT, LANCASTER COUNTRY DAY SCHOOL

“The adjustment to POGIL was easy, and working in teams helped us grow together throughout the year,” says Hasan Maqbool, now a senior at Lancaster Country Day School in Lancaster, PA. “We would learn, struggle, and succeed as a team,” something that he believes helped cultivate lasting friendships and a strong sense of community.

Hasan says, “a POGIL classroom is special because it encourages an environment for teamwork and lively discussion.” These discussions, Hasan adds, have taught students how to engage with one another respectfully while voicing their own opinions as a team. This has created a sense of community in the classroom, which Hasan considers to be rare in a high school setting.

He says, “when small groups work together to solve problems, through disagreements and all, we learn to value each other’s opinions, while guiding each other considerably through confusion. We work together so that we all may learn together. POGIL creates a setting of community, while promoting the skills necessary that are essential in life beyond the classroom.”

POGIL PUBLICATIONS

New POGIL Publications

- ▶ *POGIL Activities for Life Science—Designed to Support the NGSS* and *POGIL Activities for Earth & Space Science—Designed to Support the NGSS*, by **Kim Gilreath, Lori Stanton, Amy Steele,** and **Mare Sullivan**, published by Flinn Scientific.
- ▶ *POGIL: An Introduction to Process Oriented Guided Inquiry Learning for Those Who Wish to Empower Learners*, edited by **Shawn R. Simonson** of Boise State University, published by Stylus Publishing.
- ▶ *POGIL Implementation Guide: Getting Started*, edited by **Shawn R. Simonson** of Boise State University, and **Michael Bruno** of the North Carolina School of Science and Mathematics.

**DID YOU
KNOW?**

There are 18 collections of endorsed POGIL activities at the college level, 5 for high school, and 3 for middle school.

Learn more at www.pogil.org!

ACCEPTING • DEDICATED • AWE-INSPIRING

POGIL Strategic Plan Goals & 2019-20 Community Working Groups

The five goals of the Strategic Plan guide and set priorities for the activities of The POGIL Project.

Thank you to our dedicated Working Group members who make it all happen!

GOAL 1

Grow and support the POGIL practitioner community by means of professional development events.

WORKSHOP VIDEOS:

Produce a new library of videos for POGIL professional development.

POGIL ACTIVITY CLEARINGHOUSE GROUP:

Creating an electronic location for authors to connect, review, test, access, and share POGIL activities.

GOAL 2

Increase the availability of high-quality POGIL activities, which incorporate a strong guided-inquiry structure and explicit development of process skills.

E-DELIVERY GROUP:

Creating a plan for various eDelivery options of POGIL activities.

GOAL 4

Gather and analyze data to provide comprehensive assessment of student learning and of POGIL learning environments.

CLASSROOM OBSERVATION PROTOCOL (OPTIC):

For characterizing what an instructor does and what students do in a POGIL (or team-based) classroom.

RESEARCH AGENDA DEVELOPMENT GROUP:

Prioritizing a set of research questions and studies that would further the dissemination and impact of The POGIL Project.

GOAL 3

Increase the diversity and inclusivity of the POGIL community and the students it serves.

IMPROVING INCLUSIVITY GROUP:

Producing guiding principles on improving inclusivity in The POGIL Project and professional development.

BARRIERS TO PARTICIPATION GROUP:

Creating Inclusivity Guidelines for POGIL activities, and seeking funding for translation of POGIL activities into Spanish.

GOAL 5

Develop and implement plans for the sustainability and growth of The Project.

LOCAL NETWORK GROUP:

Developing local networks to provide resources, professional development, and community for current POGIL practitioners while growing the number of practitioners.

COLLABORATIVE DISSEMINATION GROUP:

Examining contacts and relationships for current and future collaborations.



Santiago Toledo

When Santiago Toledo was a newly minted faculty member in the chemistry department at St. Edward's University in Austin, TX, his department chair introduced him to POGIL. Toledo remembers feeling skeptical, even though he'd been on the hunt for alternatives to lecturing for years.

"It was only when I let go and began pretending that I was a student during those activities, that I began understanding things about general chemistry, which I had been teaching for six years, but for the first time were clicking," said Toledo. "It sold me when I was teaching myself things that I thought I knew."

With one-on-one mentorship, Toledo discovered the flexibility of the POGIL method—and joined an entire community of practitioners who were excited to talk with him about lesson plans and experiment design.

"It felt overwhelming to change that much," said Toledo of his initial reservations. He was worried that his interest in alternative forms of assessment wouldn't mesh well with the POGIL method. "What really made the

difference was having a mentoring relationship, and then finding that there's a giant community of people that I can always turn to, to ask questions or to try to figure out what they're doing."

The POGIL community became especially important for Toledo as he moved through the tenure process. His fellow practitioners helped ease worries about push back Toledo had received from students about his classroom methods.

"The community of practitioners understands the literature of teaching and learning, and because they have a foundational knowledge, they know how difficult it is," said Toledo. "Finding a community of honest people that are unrelated to your institution, that can tell you, 'Yeah that's normal. That's super hard. It's fine. Keep doing it! It can really transform somebody's career."



POGIL Community Awards and Honors

The awards and honors keep coming for POGIL practitioners. Congratulations everyone!

**WE ARE SO PROUD
OF ALL OUR POGIL
PRACTITIONERS AND
THEIR AWARDS!**

Sheila Barbach was named General Studies Principal at the Gerrard Berman Day School.

Michael Bruno, Instructor of Chemistry and Chemistry Chair at the North Carolina School of Science and Math, was chosen as one of the winners of this year's UNC Board of Governors Excellence in Teaching Awards.

Kristen Drury, AP and Regents Chemistry Teacher, William Floyd High School in Mastic Beach, NY, received the Shining Star Teacher Service Award for exemplary service to the William Floyd school community.

Anne Glenn, Professor of Chemistry at Guilford College, earned the college's Faculty Excellence in Advising Award.

Steve Gravelle, Associate Professor of Chemistry at St. Vincent College, earned the 2019 Wimmer Faculty Award that recognizes a senior faculty member for sustained excellence.

Elizabeth Jensen, Professor of Chemistry and Chairperson at Aquinas College, was honored with the Outstanding Teacher Award announced by the college president.

Laura Lavine, Associate Director of the Agricultural Research

Center at Washington State University, was promoted to Chair, Department of Entomology, at Washington State University.

Charity Lovitt was named Associate Co-director for First-year and Pre-major Programs and Discovery Core at University of Washington, Bothell.

Stephanie O'Brien, Chemistry Teacher at Commack High School, won the 2018 American Chemical Society New York Chapter Outstanding Teacher Award for "highly effective teaching and inspirational leadership to students of high school chemistry."

Kristin Plessel, Associate Professor of Chemistry at the University of Wisconsin-Whitewater, was named Interim Associate Vice Chancellor for Academic Affairs in July of 2019.

Sheila Qureshi was promoted to Visiting Associate Professor of Chemistry at Weill Cornell Medical College in Qatar.

Heather Wilson-Ashworth, Professor of Biology at Utah Valley University, received the 2018 Presidential Award for Excellence in Engagement for her work with POGIL in her classroom and mentoring other faculty.



Ashley Hill

POGIL
STORIES

Ashley Hill, a high school science teacher in Fullerton, CA, had taught classes using POGIL materials for years. But it wasn't until she attended a 3-day workshop with two of her colleagues that she realized something important: she'd been doing it all wrong.

"I think a lot of people see it as a photocopied resource that's just handed out," Hill said of teachers who encounter POGIL materials without being trained to facilitate activities. And, for a few years, she was one of them.

But the 3-day training fundamentally changed Hill's perspective. "We were super motivated, and picked up a ton of skills and information in the 3-day workshop, brought it back for next year, and completely changed the way we use it in our classrooms," she said.

The POGIL workshop also provided Hill with a new community of educators to tap into, and she launched herself into trying to bring other teachers in Southern California on board with the pedagogy.

However, public school teachers in Los Angeles and surrounding counties face steep challenges to accessing professional development, says

Hill. In order to take time off to attend her very first POGIL workshop, for example, Hill promised to slash travel expenses by staying with a relative. Teachers in her area are often responsible for paying for their own substitutes, too.

In addition to a structural lack of support for professional development, Hill notes that teachers like her in Southern California face additional challenges in the classroom. They have huge student populations to educate, and those students have a large range of needs.

Even so, Hill found that POGIL activities were a great way to boost the confidence—and the performance—of students who struggled, especially English Language Learners.

POGIL has made such a differ-

ence in her own classroom and the classrooms of her colleagues, that Hill has become passionate about connecting other POGIL educators in Southern California. She knows how infectious the energy of an engaged community of educators can be, too.

"I think it only takes one person who is excited and engaged to get other people excited," Hill said.

The POGIL workshop provided Hill with a new community of educators to tap into, and she launched herself into trying to bring other teachers on board with the pedagogy.



Thank you to our POGIL Donors!

Our warmest thanks to each of you who have given so generously over the past year.

We are deeply grateful for your support and participation. We'd also like to recognize our 116 Sustaining Partners* who have donated for three or more years or have joined our monthly giving program. We can't thank you enough, but we'll keep trying!

Julie Kristine Abrahamson

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**2018-
2019**

**Thanks to your support,
The POGIL Project was
able to provide:**

**74 Teacher
Scholarships**

(to POGIL workshops and meetings)

**6 Workshop
Subsidies**

(to schools)

1 SPUR+ grant

(for new POGIL activities)

THE POGIL PROJECT

Ways to Give

Now more than ever, educators and employers emphasize the need for students to develop the skills and knowledge to succeed at school and at work, and to actively participate in civic life. Your gift, of any amount, helps bring POGIL to new educators and classrooms every year. Thank you!

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- ▶ One-time gift
- ▶ Monthly gift: Become a POGIL Sustaining Partner by joining our monthly giving program

By Mail:

Please send your check to: The POGIL Project, P.O. Box 3003, Lancaster, PA, 17604-3003

Join us for POGIL Pledge Week October 21-25, 2019!

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The official registration and financial information of The POGIL Project may be obtained from the Pennsylvania Department of State by calling toll free, within Pennsylvania, 1 (800) 732-0999. Registration does not imply endorsement. The POGIL Project is a 501(c)(3) nonprofit organization.

Kristi Deaver Uselding



Kristi Deaver Uselding first encountered POGIL more than a decade ago, right as she was trying to break the lab and lecture cycle in her Iowa high school chemistry classroom. Invigorated by her first workshop, Uselding volunteered to provide feedback for the new activities rolling out as part of POGIL's High School POGIL Initiative, or HSPI.

Soon, she experimented with writing her own activities. "I started to write my own when there seemed like there was a gap, or what was available wasn't quite what my kids needed at that time," she said. "Sometimes it was the level, or the approach to the concept," Uselding continued. "Like, I don't really need them to know all of that right now; I just need this little piece."

As a practitioner, and, later, a trained facilitator of POGIL's 3-day workshop and writing retreat, Uselding discovered how flexible POGIL could be. "There is a formula to it, but you do make it your own," she said. "Especially in the facilitation piece. That's where I learn from people. People feel it's prescriptive, but it's really not."

As a high school teacher, Uselding also works hard to balance content knowledge with process skills. Working collaboratively with other teachers in The POGIL Project helps Uselding think through how students develop these process skills, too.

Despite all the differences in their careers, she says, secondary and post-secondary POGIL practitioners have a lot in common and can learn from one another. "Our goal as educators is really the same," Uselding said. "We all just want kids to be thinkers. We want our students to grow up and make meaning for themselves. POGIL is one way that allows us to help kids with that process, and to make those connections."

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NSF GRANT AWARDS

In the past year, we received our first two National Science Foundation grants awarded directly to The POGIL Project as an independent 501(c)(3) organization, both for projects that build on the power of collaboration and community.

In December of 2018, the NSF awarded us a conference grant to help provide scholarships to increase the diversity of participants at NCAPP 2019.

This past July, we received NSF funding for “Bridging to STEM Excellence,” developed collaboratively between five national STEM education initiatives to form a consortium and consultancy designed to help five partner institutions improve instruction and student support practices over the next two years. Thank you to the NSF and all of our partners!

THE POGIL PROJECT

Financial Stewardship 2018*

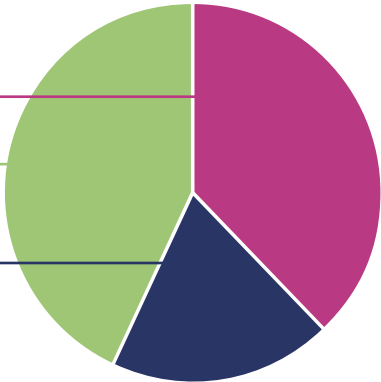
* Most recent full financial year

REVENUE SOURCES

38% Donations & Grants**

43% Workshops

19% Publication Sales & Royalties



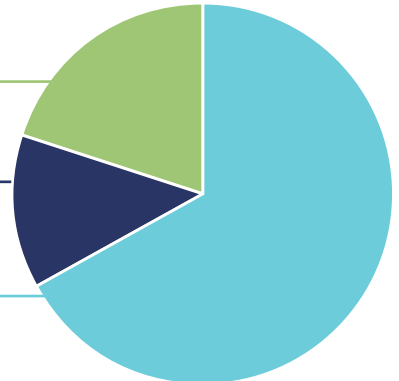
** Donations do not include a substantial gift designated for special projects in the coming years.

EXPENSES AS % OF BUDGET:

20% Management & General

13% Fundraising

67% Programming





Gina Frey & Walter Buhro

When Gina Frey's son, Walter Buhro, emerged from graduate school with an M.A. in experimental physics and a desire to teach, she wasn't necessarily surprised.

What surprised Frey, who is a professor of general chemistry at Washington University and a veteran POGIL facilitator, is that her son—who loved listening to lectures and working on his own—embraced active learning pedagogy in his classroom: his polar opposite learning preference as a student.

"I really like to see that students are constructing their own knowledge," says Buhro, who teaches physics at West Morris Regional High School in Chester, New Jersey. "Students have to

interpret data and build concepts from that. That's very important."

Buhro's observations have led to generative mother-son discussions about assessing process skills, and POGIL has become a way for them to connect with one another as educators. "We bonded a lot, talking about different methods, how to meet students where they're at, and how to get them to show you how they're learning," says Buhro.

"It really is a conversation, it really is like he's learning from me, and I'm learning from him," confirms Frey.

"I really like to see that students are constructing their own knowledge. Students have to interpret data and build concepts from that. That's very important."



POGIL
STORIES



On NCAPP 2019....

I had never been part of such a welcoming and inclusive group. I was struck by the number of people who had been using POGIL for years and were still just as passionate as when they began, if not more. The other thing that resonated with me was how eager everyone was to improve. Because of NCAPP, I have the support I need to overcome the obstacles I've encountered. I found my people. People who are fun, and funny, and love their students and will do anything to help them learn without sacrificing who they are. I am already so excited for the next POGIL event and can't wait to see what this year holds.

—Sara Fox, Academy of Science and Technology, Conroe, TX

On attending his first POGIL workshop....

Seeing that community there and feeling like a part of it was really powerful for me. I think about 70% of the workshop impacted my pedagogy and teaching, but a big component of it was finding a group of people who cared about teaching.

—Tim Herzog, Chemistry Professor,
Weber State University, Ogden, UT

On what makes POGIL so unique..

The philosophy is, you don't tell people something. What you do is create an environment where they can learn it. It's really a classroom environment that is conducive to discovery.

—Dan Libby, Chemistry Professor (Retired),
Moravian College, Bethlehem, PA



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