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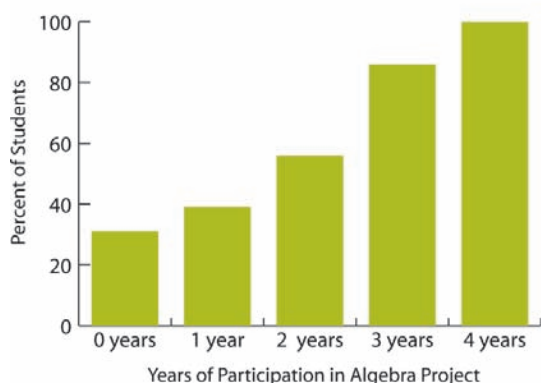
Teacher Marcus Hung & San Francisco students in Chicago, for July '09 institute at DePaul Univ.

AP High School Cohorts – NSF Discovery Research

The Algebra Project has completed the planning year of its Discovery Research K-12 grant from the National Science Foundation. The award was granted for “potentially transformative” education research, and the Algebra Project was among the 17% of proposals that were successful. The Algebra Project will test its “cohort model” for preparing students for college mathematics who are currently performing in the lowest national quartile in mathematics.

The cohort model was developed at Lanier High School, Jackson, MS. Beginning with those students who took Algebra I with the Algebra Project in 2002-03, the project kept together a group of students, who took math every day in long periods. The graph below shows the on-time graduation rates for the first Cohort who started in the lower-quartile in 2002 and graduated in 2006; the rates increased with the number of years staying with the program.

Percent of Lanier H.S., Algebra Project students who took Algebra I in 2002-03 and graduated on-time in 2006



The project has established six 9th grade cohorts in four schools: Crenshaw and Franklin High Schools in Los Angeles, CA; Mansfield High in Mansfield, OH; Eldorado High in Eldorado, IL; and Ypsilanti High in Ypsilanti, MI.

With this grant, the Algebra Project holds itself accountable to radically transform the lives of additional students who have so far not been reached by education reforms, and to stimulate the interest of educators across the nation in this model.

Goal for National Impact of the AP's Cohort Model: to demonstrate how students who enter high school performing in the lowest national quartile in mathematics can accelerate their learning, pass state and national (ACT/SAT) exams, and be prepared for college mathematics.

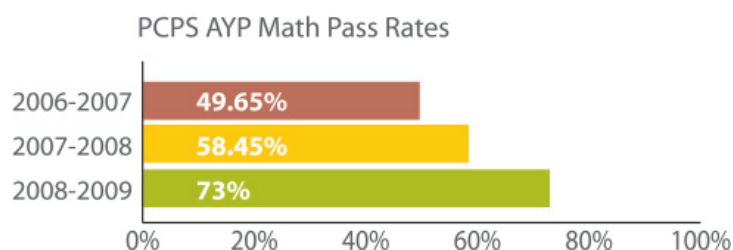
This article continues on the Algebra Project website, please visit: www.algebra.org/news/



Accreditation Progress in Petersburg, VA!

Celebration fills the air in Petersburg, VA, these days, and rightly so. For the first time in the history of the Virginia Standards of Learning, Petersburg High School has received full accreditation! A.P. Hill and Walnut Hill elementary schools also achieved full accreditation this year and Robert E. Lee was accredited for the third year in a row. Petersburg City Public Schools (PCPS) is indeed making progress.

"The Algebra Project is proud to be a partner in the district's tremendous success," said David Dennis, a community and site development consultant for Algebra Project, Inc. "Three years ago, when we began working into Petersburg, only one of the district's nine schools was accredited. Today, four of the district's schools are accredited. And those that aren't have made notable strides."



Overall PCPS Annual Yearly Progress (AYP) math pass rates increased by 23.35 points (47%), from 49.65% in the 2006-2007 academic year to 73% in 2008-2009.

Dr. Doris Williams, Community/Site Development Consultant for the Algebra Project is quick to add that "success in Petersburg is the result of a lot of hard work on the parts of many entities, including the districts's teachers, administrators, and partners.

With generous support from the Cameron Foundation of \$1.8 million to the Petersburg City Public Schools to match the commitment of the District to support the Algebra Project's programs in Petersburg the Algebra Project began work in Petersburg with the formation of a Design Team in 2005. The team spent the next year planning the implementation of the Algebra Project and a K-16 Partnership Model for student success. Among the many collaborators that the Algebra Project brought together to design the model were local government officials, school personnel, faith-based and community representatives, parents, and faculty and staff from Virginia State University (VSU). This team is being re-tooled to meet the changing needs of the community, school and students.

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Algebra Project national Professional Development of Professional Developers

Boston, MA, June 22-26, 2009 -

Algebra Project mathematicians, teachers and mathematics educators convened at the HayGroup in Boston, MA for a 5-day intensive institute to prepare new facilitators of AP teacher professional development. It is called "PDPD," or "Professional Development for Professional Developers." With the support of supplemental funding from the National Science Foundation, the AP seeks to leverage the skills university and school-based partners in the work of supporting teachers. The 14 participants hailed from five AP sites—Ypsilanti, MI; Los Angeles, CA; Petersburg, VA; San Francisco, CA. Bill Crombie and Lynne Godfrey facilitated the sessions, with support from Becca Bailey of the AP office.

The Algebra Project goes to Northern Minnesota!

St. Louis County, MN – At the invitation of Ms. Lowana Greensky, Director of Indian Education for ISD 2142, and her staff, Gary Benenson, Professor of Mechanical Engineering at the City College of New York, co-author of "Stuff that works!" curriculum guides, Heine-mann (2002) and member of the Algebra Project Professional Development and Materials Development teams, made two trips to Minnesota last winter and spring 2009 to introduce Algebra Project Teacher Resource Materials and Student Workbook called "Pop Ups!" ISD 2142 covers an area roughly the size of NJ running from Duluth to the Canadian border.

The workshops in Virginia, MN, the headquarters and a central location in the District, were facilitated by Gary and Annie Lerew, a Grade 9 Math Teacher at Banana Kelly High School in the Bronx, NY. The Algebra Project "Pop Ups!" workshop was the first ever district-wide PD workshop sponsored by the Indian Education Program, and it provided Lowana Greensky with an opportunity to address issues about the education of Native students within the district.

Over the course of two days, eighteen teachers and several staff representatives from seven rural PreK-12 schools in St. Louis County were given the opportunity to experience Algebra Project methods first hand.



Gary Benenson With a Student During Pop-Ups Workshop in MN

A letter from Ann Lyon,
Algebra Project Teacher
at Thurgood Marshall
Academic High School,
in San Francisco, CA, to
teachers attending the
2009 Algebra Project
summer professional de-
velopment institute held
at DePaul University, in
Chicago, IL.
(from July 2009)

Dear Algebra Project Teacher,

I have been asked to write you a letter about my experience working with the Algebra Project curriculum for the first time. Let me tell you a little bit about how we got involved with the Algebra Project, what my first year was like and where we hope it's going.

Our school serves those students who are typically underserved, and we have struggled to find both curricular materials and strategies to make math, particularly Algebra, accessible to those students. Many of our graduates manage to get themselves to City College or one of the California State University campuses, only to have to take remedial classes for which they have to pay but for which they don't receive credit.

Marcus Hung heard about the Algebra Project last year and got in touch with Marian Currell, now an administrator in our district, who had used the curriculum as a middle school math teacher. Through Marian, and with the support of the San Francisco Unified School District, we were able to be designated as a field test site as part of the Algebra Project's National Science Foundation, Instructional Materials Development award #0628132. We spent three weeks in the summer of 2008 in Jackson, MS, learning about the curriculum.

We both taught ninth grade sections using the curriculum during the 2008-2009 year: Marcus had two (double-period) sections and I had one. The students in our Algebra Project classes are almost entirely bottom quartile. The average California Standards Test math performance score for my group of 22 students, on a scale of 1 to 5, is 1.7.

Our experience working with the curriculum last year was a bigger challenge than we anticipated, I think. The math is great, and the curriculum absolutely does not fall within the "mile wide and inch deep" stereotype of mathematics in this country. All of the math is developed through common experiences, which I think was very positive for my students. Also, the curriculum doesn't make any assumptions with respect to skills that students should have mastered previously (but didn't). I think that helped prevent students from shutting down in the face of difficult work.

Students who are engaged in the Algebra Project curriculum have the opportunity to develop profound understanding. With this group, however, engagement isn't always easy. The modules are written by mathematicians, not classroom teachers, and the amount of preparation required to make the material accessible to our students was far greater than we expected. We spent a lot of time developing homework, additional practice and assessments and learned a lot about formatting mathematical notation. I found that my students worked best when I organized the material into small sections and circulated to work with them one on one or in small groups. By the end of the second semester, I was giving them a worksheet every day with the day's activities broken down for them and spending little or no time on direct instruction or large group activities. I also learned that they all had good days and bad days, and I had to figure out when to put pressure on them to work and when to back off. I think that in some ways, I learned a lot more than my students did this year.

So is the Algebra Project working? We don't know yet. Certainly it is too soon to say it's not working. Anecdotally, I can say that attendance in my Algebra Project class was much better than in my more traditional Algebra class, and homework production was better too. I have noticed some of my students developing some critical thinking skills that I don't think would have emerged with a more traditional curriculum. They also had enough confidence in their understanding of some of the topics we studied to challenge sample questions when we reviewed for the standardized tests.

One thing I realized as the year went on is that this kind of change will take a long time to implement and an even longer time to assess. More than simply changing the curricular materials by switching textbooks, we are changing the culture of mathematics at our school, at least for a small group of students. Some of my students are finding that through the Algebra Project, they are able to access math with greater understanding than they had before. For some of them, the year was really about creating a community in which they felt safe to work. While they may not have learned as much math as I had hoped, I did see a positive change in their attitude toward work by the end of the year, so I feel like we were successful at least in achieving that.

Last year was a difficult, challenging, frustrating experience. There were days when I was ready to quit, but on the days when my students were successful I took far more joy in their success than in my more traditional classes. Overall, I think the struggle was worth all of our efforts, and I am looking forward to tackling Geometry with the same group of students this year (2009-2010).

Please feel free to contact me if I can help in any way as you work through the first year of the curriculum.

Ann Lyon
Thurgood Marshall Academic High School
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Erin O. and San Francisco student

A Letter from Michael, a 10th grade Algebra Project Student at Thurgood Marshall Academic High School, in San Francisco, CA, to his AP teacher, Mr. Marcus Hung after successfully completing the Road Coloring curriculum module.

January 23rd, 2009

Dear Mr. Hung,

I just want to say thanks for the great semester in Algebra and Math Support. These past couple of weeks was really fun. For once I actually understand Algebra and to make it better is that you taught us in a fun way. I also like being a student in this class because in my last two Algebra classes I didn't understand the math. That's why I like being in this class because I understand the work. It's not very hard but its not easy its just right and understandable. Thats why I really look forward to having your class this semester, the next and next year.

Thanks

Michael

(continued from p.2)

The emerging K-16 partnership model has proven to be of mutual benefit to all of its key partners, but especially to the students of Petersburg Public Schools. One Senior summed it all up in her comments to teachers, students, business partners and community members at the district's recent celebration. "I am going to graduate in May from an accredited high school," she said. Fellow students shared her joy, chanting what has become the high school's theme song, **"Ain't no stopping us now!"**

This article continues on the Algebra Project website, please visit:
www.algebra.org/news/

STAY TUNED!

for upcoming news from Brooklyn, NY; New Orleans; Summerton, SC; Eldorado, IL; Ypsilanti, MI; Mansfield, OH; Los Angeles and other sites. See www.algebra.org for more stories!

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