

THE PASSKEY

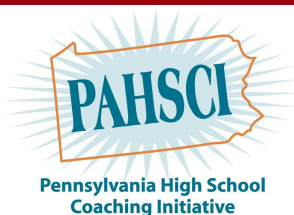
HELPING TEACHERS HELP STUDENTS

Funded by

The ANNENBERG FOUNDATION

MARCH 2007

VOLUME 2 / ISSUE 7



COACHING MATH: FOCUSING ON CONTENT AND INSTRUCTION	2
PDE COORDINATES COACHING ACROSS PENNSYLVANIA	2
INTEGRATING PLN WITH MATH CONTENT	3
PROFESSIONAL DEVELOPMENT PARTICIPATION INCREASES	3
LETTER FROM: PAHSCI'S EXECUTIVE DIRECTOR	4

ADVISORY BOARD DISCUSSES STUDENT ACHIEVEMENT AND COACHING

At its second biannual meeting, the Pennsylvania High School Coaching Initiative's (PAHSCI) Advisory Board discussed ways in which the instructional coaching model improves student achievement and how the project's research and evaluation plan is designed to analyze student outcomes. Representatives from state legislative offices, community, business and philanthropic leaders, higher education representatives, education officials, and representatives from each of PAHSCI's partner organizations attended the meeting held at the Pennsylvania State Education Association's headquarters in Harrisburg, Pennsylvania on March 20.

Dr. Gail Levin, Executive Director of The Annenberg Foundation, convened the meeting and addressed the Board on nurturing teacher leaders as a means to improving student achievement. Dr. Levin identified four primary educational needs of adolescents: smaller classes, an engaging curriculum, personalized attention, and well-prepared teachers. She suggested that if the need for well-prepared and highly skilled teachers is met, then it is possible to realize the other three needs as a corollary. PAHSCI is important, she added, because it is focused on building teacher capacity and, through that effort,

improving student achievement.

Penn Literacy Network (PLN), Foundations, Inc., and The Philadelphia Foundation (TPF) presented their roles within the Initiative to the Board. Research for Action (RFA), the Center for Data Driven Reform in Education (CDDRE), and MPR Associates, Inc., the research and evaluation organizations, presented the design for evaluating both the qualitative and quantitative data associated with PAHSCI's goals. Two studies are currently being conducted to show student outcomes: one is a within school comparison, and the other study is a between school comparison of student test outcomes. The between school study will compare the Initiative's twenty-six schools, each with a matched control school. As Dr. Elliott Medrich of MPR explained, the goal is to find a positive association between coaching and student learning.

In order to tell the whole story of the Initiative's impact on schools to legislators, Advisory Board members offered suggestions on documenting changes in school culture and student engagement, but also stressed the importance of demonstrating improvement in student test outcomes.

JOIN US AT

WWW.PACOACHING.ORG

We welcome you to visit and register with PAHSCI's online community at www.pacoaching.org.

In March, PAHSCI launched a new look for its website. The site features information on the Initiative and its participants; blogs, podcasts and resources on coaching; research findings and news on the Initiative, and more. The new site currently has over 150 registrants who receive monthly PAHSCI updates and may interact with colleagues through blogs.

Questions? Please contact PAHSCI@pacoaching.org.

MARK YOUR CALENDAR

MAY 11	Foundations Mentor Meeting
MAY 21	Statewide Networking Meeting
JUNE 25, 26, 27	Annual Centralized Course

Check our website for PLN course dates at www.pacoaching.org

COACHING MATH: FOCUSING ON CONTENT AND INSTRUCTION

By Gen Battisto, Math Mentor, Foundations, Inc.

The National Council of Teachers of Mathematics (NCTM) in its “Principles and Standards for School Mathematics” and “Professional Standards for Teaching Mathematics” presents a vision of mathematics education where all students will develop procedural and conceptual understandings of important mathematical ideas through high quality, engaging instruction. The content strands of numbers and operations, algebra, geometry, measurement, and data analysis must be learned in a context of problem solving, reasoning, communications, connections, and representation. This vision is at odds with the reality of many classrooms where emphasis continues to be placed on skill development through repetitive exercises devoid of meaning or application. In classrooms that persist in outmoded instruction, students do not achieve well on today’s high stakes tests.

To serve the stated PAHSCI goal of improving student achievement, mathematics coaches should support teachers in bringing the NCTM vision to life in mathematics classes. Important decisions must be made about content which must receive decreased emphasis and that which requires more attention. A strong background in mathe-

matics content gives coaches the knowledge and confidence to help teachers make these decisions and advance mathematics reform.

Central to high quality mathematics programs is a focus on reasoning and problem solving. Choosing engaging problems to match particular content, scaffolding problem solving experiences, and selecting appropriate materials to model problems are challenging tasks which present a departure from practice for many teachers. Math coaches can help them make that leap.

At the cornerstone of standards based mathematics instruction is appropriate use of instructional materials. Mathematics coaches should know and model the use of calculators and other tools so that students engage in making conjectures, performing repeated trials, and observing patterns which result in opportunities to make their own meanings rather than follow given rules. Many more examples could be cited to reinforce the value of content coaching, but instructional skills are not to be neglected. Ideal mathematics coaches should demonstrate expertise in content and instruction to help their colleagues teach math better and teach better math.

“Ideal mathematics coaches should demonstrate expertise in content and instruction to help their colleagues teach math better and teach better math.” - GEN BATTISTO, MATH MENTOR, FOUNDATIONS, INC.

PDE COORDINATES COACHING ACROSS PENNSYLVANIA

Dr. Gerald Zahorchak, Secretary of the Pennsylvania Department of Education (PDE), convened the Collaborative Coaching Board in October, 2006. The Board consists of representatives from the five coaching initiatives impacting student achievement across Pennsylvania; they include: Accountability Block Grant, Classrooms for the Future, Getting to One, PAHSCI, and Reading First.

A total of \$91 million is spent on coaching in Pennsylvania through these initiatives representing both public and private ventures. Coaching projects can be found in 41% of school districts, and over 800 schools have coaches. There are 42 state level mentors providing support to district level coaches.

The Board meets monthly to establish consistency between the five Pennsylvania initiatives that currently have major coaching components as part of their school improvement design. Topics discussed cover:

- Determining a common language and consistency among definitions for terms such as coach and mentor;
- Developing a matrix showing which districts are participating in which initiatives across the State;

- Establishing professional development for coaches statewide through Learning Sciences International (LSI), an on-line coaching course;
- Comparing processes on project evaluations, such as data collection, evaluation design, and data analysis strategies;
- Drafting a set of common assurances and a common coach job description to be used across initiatives;
- Exploring possibilities for a coaching certification or endorsement.

PDE’s goal is to coordinate Pennsylvania coaching and impact student achievement. The Board has already refined many of the stated objectives, and is in the process of exploring other components, such as a certification for coaches. Dr. Rita Bean, Co-Director of the LEADERS Project at the University of Pittsburgh and a PAHSCI Advisory Board member, has conducted a survey of other states to establish common practices for a coaching certification. The Board will continue to discuss and refine these findings for Pennsylvania coaching. The Board will establish recommendations to be forwarded to Dr. Zahorchak for consideration.

COACHES AND TEACHERS CAN INTEGRATE PLN WITH MATH CONTENT

By Kimberlee A. Cruz, Math Coach, McCaskey High School, Lancaster

PLN reading and writing strategies are sometimes a stretch for math teachers to integrate into their classes. While some strategies are able to be directly implemented into a math classroom, like cooperative learning, student presentations, journaling, ‘Collins’ type 1 and 2,’ ‘Do Nows,’ and ‘Tickets Out the Door,’ other strategies, such as ‘Before, During and After’ reading strategies are not so easy. You have to start thinking outside the box to figure out how to adapt these approaches into your curriculum without losing the “PLN-ness” of the strategy.

One of the key ways to implement ‘Before, During, and After’ reading strategies in mathematics is through the use of graphic organizers. The graphic organizers listed in the chart below activate students’ prior knowledge and provide teachers with data on their students’ background knowledge which then helps teachers drive their instruction. These tools also allow students to organize information and to write about their acquired knowledge on topics they have studied in math. They can also serve as assessment tools for teachers on their students’ learning.

Before Reading	During Reading	After Reading
<ul style="list-style-type: none"> ○ Knowledge Rating Charts ○ Anticipation Guide ○ Reaction Guide ○ Problem Solving Guide ○ What do you know about? 	<ul style="list-style-type: none"> ○ K-W-L Charts ○ Semantic Feature Analysis ○ Word Splashes ○ Semantic Word Maps ○ Semantic Word Sorts 	<ul style="list-style-type: none"> ○ Concept Checks ○ Frayer Models ○ Compare and Contrast Matrix

PLN writing strategies can also be easily implemented in the math classroom. In the next chart, you will find several activities teachers can use with their students to promote different types of writing. Coaches should encourage math teachers to incorporate one of these writing activities into every lesson. Incorporating writing strategies in math encourages students to think deeper than the surface of a math topic, and it helps students to construct and retain new learning as well as to develop their communication skills as mathematicians.

Types of Writing	Activities
Writing to Understand	<ul style="list-style-type: none"> ○ In Your Own Words ○ MO (Method of Operation) ○ Learning Logs
Writing to Communicate	<ul style="list-style-type: none"> ○ Math Journals ○ Math Letters
Writing as Authentic Assessment	<ul style="list-style-type: none"> ○ Muddiest Point exit slip ○ One Minute Summary
Writing as Assessment	<ul style="list-style-type: none"> ○ Essays ○ Portfolios ○ “Write Questions”

PLN reading and writing strategies for math really do work well together. The students transact with their text, organize their thoughts and new learning, and communicate their learning through various types of writing. PLN provides a framework for enhancing student engagement through mathematical critical thinking and helps students to view math as more than just numbers.

PROFESSIONAL DEVELOPMENT PARTICIPATION INCREASES

PAHSCI participants are increasingly engaged in professional development sessions at Penn Literacy Network (PLN) regional courses, and within their schools.

PLN reports that there was a total of 289 participants at PLN 1 Regional Courses during the 2005-2006 school year, and 508 total participants at PLN courses during the 2006-2007 school year: 308 in PLN 1 courses and 200 in PLN 2 courses.

Foundations’ mentor teams also report increased participation in professional development at PAHSCI schools. A survey of the schools indicates that all PAHSCI schools are conducting on-going professional development sessions, and almost all schools are instituting study groups. Collectively, these study groups have covered fifty-one different topics. The most

popular topics were: Engagement Strategies, PLN Support Groups, Classroom Management, Document Review, Book Reviews, Literacy in the Content Areas, and Questioning Strategies. Professional development sessions at schools, not in the form of study groups, cover a broad range of topics, such as PSSA Strategies, Lesson Planning, using Data to Inform Instruction, Engagement Strategies, and Academic Literacy.



Joe Ginotti, Bruce Eisenberg, Tom Sebastian, and Charley Territo assemble at the March PAHSCI Advisory Board Meeting.

LETTER FROM: PAHSCI'S EXECUTIVE DIRECTOR

Dear Colleagues,

The importance of literacy in math goes far beyond the communication about numbers. It is literacy through the lenses of a social, human, meaning-making, and language based context. Literacy is making meaningful connections through language regardless of the content area.

Mathematics is not learned in isolation and cannot be separated from literacy or from everyday learning. It is more than just numbers or operations; it is textbooks, concepts, and language and is as much a part of life as novels are a part of literacy, necessary for effective learning of any content.

Real learning takes place when it is relevant to life and when students can personalize their learning. What better way to connect students to the world of mathematics than to connect them to mathematicians who have made incredible contributions to the world? Stories about mathematicians and the concepts they have developed will help students recognize how these concepts relate to their lives, their peers, and their world. It will help them connect mathematical concepts to reality. Try accessing <http://math.cofc.edu/kasman/>

MATHFICT/ for a website that features stories about mathematics from a literacy perspective.

Writing about mathematical concepts reinforces content knowledge. This is content literacy at its best. Literacy is making meaningful connections through language, and content literacy is achieving this in a specific content area. All effective learning requires these connections.

Sincerely,



Ellen B. Eisenberg
Executive Director, PAHSCI



Dr. Jim Moran, PA State System of Higher Education, and Dr. Ed Vollbrecht, PDE, converse at the PAHSCI Advisory Board meeting on March 20th.

PENNSYLVANIA HIGH SCHOOL COACHING INITIATIVE

Instructional coaching has emerged as a promising strategy for increasing student achievement and affecting education reform nationwide. In 2005, The Annenberg Foundation partnered with the Pennsylvania Department of Education to implement the Pennsylvania High School Coaching Initiative (PAHSCI). Funded by The Annenberg Foundation, PAHSCI is a three-year, \$31 million instructional coaching initiative. Four additional partner organizations provide support for program implementation: Foundations, Inc., Penn Literacy Network from the University of Pennsylvania, Research for Action, and The Philadelphia Foundation. Research support is also provided by the Center for Data Driven Reform in Education from the Johns Hopkins University and by MPR Associates, Inc.

The PAHSCI model is designed to provide trained teacher-leaders, or coaches, to schools and school districts. The Initiative places one literacy and one math coach for every 600 students in 26 high-need high schools located in 16 school districts across Pennsylvania, with a total enrollment of over 32,000 students. Instructional coaches sustain ongoing, site-based, job-embedded professional development for teachers and administrators. They also facilitate in-class coaching and modeling, peer collaboration, and teacher training in order to improve learning at participating schools.

We're on the web!

www.pacoaching.org

PENNSYLVANIA HIGH SCHOOL COACHING INITIATIVE

Moorestown West Corporate Center
2 Executive Drive, Suite 1
Moorestown, NJ 08057
Phone: 856.533.1608 Fax: 856.533.1651
E-mail: eeisenberg@pacoaching.org

STAFF

Ellen B. Eisenberg, Executive Director, PAHSCI
Ophir Leheavy Busel, Communications Manager & Editor
Lesley Stone-Hyman, Communications Assistant & Assistant Editor
Leslie Rumble-Davenport, Administrative Assistant

This newsletter is made possible through a generous grant from
THE ANNENBERG FOUNDATION