

FOCUS

PROFESSIONAL LEARNING FOR STEM

A bold experiment:

Teachers team with scientists to learn Next Generation Science Standards.

By Sharon L. Gilman and Martha C. Fout

Teachers at 18 middle and high schools in a southeastern state were in the final year of a three-year professional learning program when they teamed with six graduate fellows participating in GK-12, a National Science Foundation-funded program that supports fellowships and training for graduate students in science, technology, engineering, and mathematics. The program's goal is to improve the graduate fellows' communication and teaching skills through interactions with teachers and students in K-12 schools while enriching STEM content and instruction for their K-12 partners.

Diving beneath the surface:

Underwater robotics lessons bring STEM to life for teachers in Guam.

By Anne Tweed and Laura Arndt

In Guam and across Micronesia, students haven't had many opportunities to pursue STEM careers. Underwater robotics seemed like a perfect way to build students' content knowledge in STEM to learn skills that can be applied in the real world. Encouraged by the potential of a marine technology program, Guam's Department of Education set into motion what would become a two-year project to plan, develop, and implement culturally responsive professional learning that would bring STEM to life for teachers across Guam and, ultimately, for their students.

Problem solvers:

MathLab's design brings professional learning into the classroom.

By Sara Morales and Terri Sainz

Using a learning design created by New Mexico State University's Mathematically Connected Communities (MC²), student lab classrooms are videostreamed live to observation rooms, where teacher participants discuss, reflect, and collaborate on how students learn mathematics, effective pedagogical practices, and math content for teaching. Teacher participants interact with and interview students to experience firsthand their challenges and successes. In addition, school and district leaders can support and learn alongside teachers.

IDEAS

Moving from 'students can't' to 'how students can':

A learning design anchored in the Standards for Professional Learning puts the focus on equity.

By Janice Bradley, Andrea Rorrer, Ashley McKinney, and Cori Groth

The Utah Education Policy Center collaborated with local schools and districts to design standards-based professional learning to increase equity and access for all students. Through facilitated learning experiences, which often include nationally recognized leaders and researchers, school and district practitioners take part in a broader community conversation that explores challenges and frustrations as well as successes and opportunities for growth.

How much support is enough?

3 tools help us know when to step in and when to back off.

By Leslie Patterson and Carol Wickstrom

Responsive professional development is about watching learners closely, interpreting observations to make nuanced decisions, and taking action to support learners at particular moments. To support individuals while contributing to collective learning, we have to adapt to the complexity within each individual learner and the complexity of the whole school. Three flexible tools help resolve questions about how much and what kind of support is most appropriate.

Training the trainers:

Learning to be a principal supervisor.

By Amy Saltzman

While most principal supervisors are former principals themselves, few come to the role with specific training in how to do the job effectively. For this reason, both the Washington, D.C., and Tulsa, Oklahoma, principal supervisor programs include a strong professional development component. *This article is sponsored by The Wallace Foundation.*

The coach's learning community:

Standards-based program develops schoolwide literacy capacity.

By Diane Reitz and Gene E. Hall

The Striving Readers Comprehensive Literacy Program aims to improve literacy achievement in pre-K-12 classrooms through implementing the use of full-time school-based literacy coaches. To develop their knowledge and skills, coaches in Nevada's Clark County School District participate in a professional learning community grounded in Learning Forward's Standards for Professional Learning.



VOICES

MEMBER SPOTLIGHT

Syeda Woods, principal at Fenwick Academy in New Jersey.

ASK

How do I coach peers who have more experience than I do?

By Michelle King

Follow key steps to build credibility and create supportive relationships.

CALL TO ACTION

A glimpse into Canada's practices helps us examine our own.

By Stephanie Hirsh

Learning Forward's study on the state of professional learning in Canada offers insights for members in the U.S. and worldwide.

BEING FORWARD

Recognize the hard work of professionals.

By Scott Laurence

Professional athletes and quality educators share traits in common: hard work, dedication to continuous improvement, collaboration, and accountability.

RESEARCH

RESEARCH REVIEW

Missouri program highlights how standards make a difference.

By Joellen Killion

Intensive professional learning for teachers and principals who support and monitor professional learning positively impacts teacher classroom practice and student achievement in mathematics in rural Missouri middle schools.

Professional learning in Canada:

Learning Forward releases a landmark study and call to action.

Learning Forward's study identifies key components of effective professional learning based on findings from educators' experiences in Canada. A call to action by Michael Fullan and Andy Hargreaves makes the case for a culture of collaborative professionalism for educators.

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- Please send manuscripts and questions to Christy Colclasure (christy.colclasure@learningforward.org).
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