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## 2008 ALC HIGHLIGHTS

### Alumni Promote Hands-on Science and Math



Edward Moriarty '76, an instructor at the MIT Edgerton Center, ran a K-12 Ideas for Action roundtable of best practices for hands-on school activities using a collection of straws that produce 3D impressions of objects pressed into one side.

Just what are MIT alumni willing to do to improve K-12 education in their communities? A lot, it turns out. At the Alumni Leadership Conference's sessions on the K-12 Initiative, Robert Blumberg '64, SM '65 described the results of a recent survey aimed at assessing interest in converting the many individual alumni efforts into something more. "Can we do something coordinated and with a feedback loop to keep improving our efforts?" Blumberg asked the audience.

The Association survey found that some 75 percent of alumni felt it was important for MIT alumni to get involved in K-12 educational efforts—and would be willing to participate personally in activities. In Blumberg's calculations, that could translate into 4,000 volunteers working with some 200,000 students.

Blumberg and fellow alumni working with the Association suggest four ways to act: help high school teachers incorporate hands-on experiments; introduce OpenCourseWare's Highlights for High School materials for AP and other advanced courses; organize

after-school activities and science clubs; and work as part-time advisors or teachers. The group is launching a pilot project this fall in Cambridge, MA, with six to nine volunteers, and they hope to follow that with a New England regional launch, then expand nationally.

In one panel, three Boston-area alumni described their hands-on efforts to bolster educational experiences.

Erika Ebbel '04, a PhD student in analytical chemistry at Boston University Medical School, established the WhizKids Foundation in 2002 to get kids excited about science. "I believe that all kids have the capacity to be whizzes if they are stimulated in the right way," Ebbel says. WhizKids activities include setting up science fairs and ongoing relationships between young scientists and classes in 16 participating Massachusetts schools. Showing K-12 students that science is cool means bringing in interesting people doing exciting things, such as a Crime Scene Investigation (CSI) day for kids. The [WhizKids Foundation](#), which is free to schools, has 50 volunteer staff and welcomes more.

Mark Holthouse '76 is a serial entrepreneur whose business success as founder of SpeechWorks International Inc. freed him to take a job he loves—a high school math and science teacher. "My goal is to take the kids who think they'd like to be lawyers and convince them it would be a lot more fun to be an engineer," Holthouse says. He aims for his honors pre-calculus classes to be both hard and fun; the elective he developed—preengineering—has

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[Highlights for High School](#), a free, online repository of multimedia materials derived from OpenCourseWare and developed by MIT students for high school teachers and students, offers physics videos, AP course prep, essay

been a hit with 40 students enrolled in two sections. He also likes to connect math to concrete success. "I bring in engineers who have made a mint in speech recognition software and show them how sine waves are used in speech recognition." writing tips, and more.

When Joe Quigley ME '86, president of Quigley Scientific Corporation, began the [Math Club](#) in Lexington, MA, 12 years ago, he borrowed his initial materials from the Mathematical Olympiad. That makes sense since the club's focus is to help third through eighth grade students have fun and prepare for the annual Mathematical Olympiad Contest and the Applied Mathematics Challenge Contest. His goal is for students to achieve a perfect score—and his students have been remarkably successful. Some 11 percent of all the U.S. Math Olympiad perfect scores come from his Math Club students. "Kids learn from one another," he says. "I group third through fifth graders together. Peer group interaction is awesome."

In addition to the workshop series, the Alumni Association Board of Directors' ad hoc committee on K-12 education held its first meeting at ALC. The ad-hoc committee, including Blumberg and chaired by William B. Lenoir '61, SM '62, PhD '65, is developing the K-12 outreach program for the Association.

Interested in learning more about the Alumni Association's K-12 Initiative? Join the [Discussion Network's K-12](#) thread, sign up for the [mit k12 interest email list](#), or [email Christine Tempesta](#) for initiative updates.

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