

Putting Teachers to Work: The LIFT² Program

By Thomas Mahanna, PE, Senior Associate, Stantec



Most engineering companies have used the help and services of a student intern and, at this point, probably have a good idea of how to provide a meaningful learning experience for a budding engineer.

But what do you do when your intern is a middle or high school teacher?

That's the challenge facing companies that participate in the LIFT², or Leadership Initiatives for Teaching and Technology, program. LIFT² connects middle and high school math, science, and technology teachers with local companies to spend five to eight weeks of their summer earning graduate credits while gaining a better understanding of the real-world applications of their subject matter. The goal is, ultimately, to bring that experience back to the classroom.

Three years ago, our company volunteered to be a corporate sponsor and we were matched that summer with a high school technology teacher. While we were excited to have a new face in the office, we really weren't sure what to do with him. We tried to expose him to as much of our work as possible, and as he was a CAD instructor, he helped with CAD work and similar tasks that related to his students and his courses.

While we definitely enjoyed the experience and are pretty sure he did too, we've now had two more teachers spend their summers with us and have learned how to make more of the experience. If your firm is involved in a program such as LIFT² or is considering participating, the following tips may help you make sure the experience is valuable for everyone involved.

Assign a "project manager." Make one person in the office responsible for finding suitable activities. While you want to be sure your teachers stay busy, don't feel like they need a full 40 hours a week of activities. These teachers are also working on presentations and reports about their experiences, so providing some time for that and for simply observing the daily routine of the office is useful too.

Prepare in advance. In your initial meetings with the teachers, ask what their expectations

are so you can try to tailor activities to those objectives. Then a month or so before they join the office, ask staff to identify which of their projects would be suitable for the teacher to observe or help with. It also helps to set up a company email account for the teachers, and include them in office distribution lists so they feel like part of the team when they arrive.

Find a variety of tasks. Try to find as many different experiences as possible to give your teacher a balanced view of the day-to-day life of an engineer. While, of course, the teachers can't design a new culvert, they can serve as a rod man on a field survey visit, shadow a construction inspector, help write an operation and maintenance manual or tag along on a client meeting. These tasks demonstrate the many different skills engineers must have and provide more stories for the teachers to relate back to their students. Be sure, however, that the teacher complies with all safety requirements and standards, just as you would with a regular employee.

Involve your clients. Engaging clients in the teacher's experiences is a great way to foster your relationship with them. For meetings, call your client ahead of time to explain the situation and ask if your teacher can come along (making it clear that he or she is not charging to the project). Arrange visits to interesting projects, letting the client give the tour if they'd like to. For many clients, it's a nice way to show off a project they're proud of. One of our teachers, in fact, arranged to bring his classes on a field trip that fall to a water treatment plant he visited with us.

Promote the program. Publicizing your company's involvement in a program like LIFT² benefits everyone involved. Two of our teachers were featured in local newspapers during their internships, which promoted not only our company but also the teachers and their school systems, the LIFT² program and, by extension, the efforts of the larger education and engineering communities.

Now that we've figured out some strategies for making good use of this summer experience, we're really seeing the benefits of participating. It's nice to know we're helping expose students to the engineering profession at an impressionable age and, hopefully, getting them

interested in pursuing it as a career. But perhaps more importantly, we've seen the morale booster the program can be for our staff. We all can get complacent in our jobs, and this program gives our employees the opportunity to talk about what they do and show off their work. Hearing the teachers' presentations at the end of their experience reminds us of the value of our work, the pride we have in what we do and the importance of sharing that information with the rest of the world.

Tom Mahanna is a Senior Associate in the Environmental Infrastructure division at Stantec and leader of the company's Westford office. He can be reached at tom.mahanna@stantec.com or 978/577-1411.

Get Involved!

A new initiative in Massachusetts puts engineers in the classroom to raise students' interest in science, technology, engineering, and math (STEM) subjects.

The Engineering Center (TEC) has partnered with other Massachusetts trade associations to launch the "DIGITS" program, which places STEM ambassadors from local companies in sixth-grade classrooms across the state.

TEC is asking ACEC/MA member firms to identify 5 to 10 employees interested in serving as DIGITS ambassadors.

These volunteers should be:

- About 5 to 10 years out of college
- Enthusiastic about their work
- Skilled public speakers
- Able to relate to kids

DIGITS organizers will then work with these ambassadors to arrange visits to a school of their choice to make presentations to at least two sixth-grade math and science classes.

For more information, contact Susie Moulton at 781/721-2002 or Susan D'Olimpio at 617/227-5551 or visit www.digits.us.com.