Terascope Youth Radio: A University-Community Partnership Engaging Urban Teens and Undergraduate Engineering Students

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Abstract
Terascope Youth Radio is an NSF-funded partnership between MIT and the City of Cambridge that aims to engage high school students who may not have access to traditional media training. Undergraduate engineering students mentor and train local urban teens to create radio programs that address environmental topics. This unique program provides the students with hands-on experience in radio production, and allows them to develop leadership and teaching skills in an informal setting. This paper describes the program’s goals and objectives, the methodology for training the students, and the lessons learned from the program. It also provides data on the program’s outcomes, including the development of leadership and mentoring skills, and the impact of the program on the teens and the community. The paper concludes with recommendations for future programs.

Lessons Learned
• Location: Begin in local youth center, conduct program on MIT campus. Advantages: Better access to undergraduate mentors; more direct contact with authority figures; there are fewer distractions; it is a more “problematic” working environment. Disadvantages: Can’t provide easy access to Cambridge Youth Programs staff; not directly related to other camps.
• Recruiting: Originally drew new participants from general pool of Mayor’s Program applicants. Now work with the director of youth programs staff to develop strategies to reach potential participants. Can work with MIT’s youth programs staff to identify connecting strategies to Cambridge Youth Programs staff; not directly connected to most camps.
• Undergraduate students are more effective in producing real, tight deadline in real-world context.
• Common: There are many more creative and more likely to produce pieces that are developmentally appropriate. Disadvantages: Fewer have thought of the best ideas.
• Tutoring: Better to introduce technology and strategies on a “just-in-time” basis, rather than in a traditional learning setting. Disadvantages: Students may need more time to develop these strategies in a classroom setting.
• Organization of data: Interns are given their own USB drives and are required to generate all material on these devices. This reduces instances of lost work and enables easier backup and organization of material.
• Pay: Need to incentivize city employees in order to ensure that interns submit appropriate photographs and maintain good attendance.
• Meeting space: It is difficult to find regular suitable meeting space with acoustics and flexibility, the process requires flexibility and mobility-safety to be considered.
• Mentorship: Mentors have irregular schedules and will not always be available. It is important to have enough mentors involved in the program, well distributed among sessions, interns, and projects, to ensure that some mentors are always available to all.

Outcomes for Teens
Most mentors have not worked with teens before, so they are eager by what it takes to work with this age group. As one of them put it, “I think one of the most rewarding (and frustrating, but in a good way) part of TMR for me is feeling like you can inspire the teens that you work with. I think that is the most rewarding since you are not inhibited to give advice.”

Multiple mentors credit their experience as mentors and teachers while building on their own high-school experiences and furthering their own teaching.

More important, the teens themselves report that they are motivated to keep working with TMR because “I’ve been involved in environmental education programs before, and the experience can be stimulating.”

Fifteen of the 30 students who applied to the program were significantly more likely than in pre-surveys to want to pursue a major in science and engineering. Disadvantages: More difficult to maintain relationships; interns are drawn into MIT community; and they help the teens to see major life changes in the community.

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