BE A SCIENTIST! PROJECT SUMMARY

BE A SCIENTIST! is a full-scale development project that brings rich, inquiry-based informal science courses led by student engineers to Hispanic and African-American families. BE A SCIENTIST! is a new model in informal science education (ISE) for bringing cutting-edge science to the public through service learning, with applicability to different science, technology, engineering and mathematics (STEM) fields. The goal is to create a scalable, technology-based, ISE infrastructure to recruit more underserved families, encourage deeper participant understanding of the scientific process and cost-effectively assess long term program impact on the participants.

INTELLECTUAL MERIT

BE A SCIENTIST! will improve and replicate a well-tested five step training process developed by Iridescent. Through this training, engineers learn to communicate cutting-edge science to the public. Project deliverables include 75 multi-session courses reaching 2625 participants, a replicable engineer training program, 10 content videos, a bilingual social-networking website for parents, a mobile technology-based assessment tool, an Analogies Wiki, a project website and five science content T-shirt designs. BE A SCIENTIST! will also provide 640 hours of ISE training to 150 student engineers.

Institutional teams include: Iridescent, the Viterbi School of Engineering, School of Cinematic Arts and School of Journalism at University of Southern California, New York Hall of Science and Education Development Center’s Center for Children and Technology (CCT).

BROADER IMPACTS

BE A SCIENTIST! is a five-year program that will target 3rd-7th grade Hispanic and African-American students and their families in Los Angeles and New York City. BE A SCIENTIST! will impact the audience by: 1) bringing the most exciting, cutting-edge aspects of science directly to underserved families; 2) involving parents in the discovery experience so that they are empowered to better support their child’s science explorations; 3) bringing valuable social capital through engineering students into communities that don’t normally have access to them. In addition the project will provide the engineers with ISE training and experience that will encourage and equip them to communicate their research to the public throughout their careers.

CCT will conduct the evaluation and will measure change in participant career interests, understanding of complex scientific knowledge and practices, engineers’ skill development in presenting these concepts, the project’s success in producing scalable, technology-based assessment tools and the benefits of university partnerships to ISE.

Strategic impact will be realized from: 1) the development of a scalable model that brings cutting-edge science to underserved families through service learning; 2) transferring the model to New York City and refining it for robustness and scale; 3) demonstrating the effectiveness of media and social networking tools in recruiting and retaining more underserved families; 4) developing a mobile technology that sustains, expands and assesses informal learning beyond the courses; 5) developing content-rich science courses that combine the real-world applications of science and the expertise of engineering professionals; 6) identifying best practices that result in participants’ deep understanding of science; 7) the capacity building that will occur as a result of the partnerships between universities, community organizations and informal science education institutions.