



Contribution ID: 1545

Type: **Oral Presentation**

## **Xraise: Empowering Minds with Science! (12' + 3')**

*Friday, 5 August 2016 13:15 (15 minutes)*

Xraise, the outreach program at Cornell's Laboratory for Accelerator-based Sciences and Education, offers innovative educational experiences for thousands of participants age K-gray each year. Xraise engages minds by facilitating direct interaction with physical phenomena and encouraging careful observation of the world. These direct experiences consist of hands-on explorations that embrace the same processes that experts practice at our world-class particle accelerator laboratory. Xraise provides design-based, student-centered learning opportunities that allow students to connect their existing science knowledge to real-world challenges. Activities encourage students of all ages to integrate their own ideas, utilize feedback from direct experiences, and modify their designs based upon experimentation.

During our presentation, we will describe four key outcomes of our current educational programming aligned with NSF's Broader Impact Criterion. For each outcome, Xraise will share strategies used to achieve the outcome, research supporting the strategies, examples of activities our team has implemented, and indicators of success. Highlights include reflections from our tremendously successful Mobile Science program, Lending Library materials, and ReDesigning K-12 Science initiative.

The collaborative nature our work, struggles with volunteerism, and the focus for the future of our Xraise efforts will be included in the presentation. Lively discussion is strongly encouraged!

**Primary author:** HINE, Lora (Cornell University)

**Presenter:** HINE, Lora (Cornell University)

**Session Classification:** Education and Outreach

**Track Classification:** Education and Outreach