

By Pierfrancesco Riccardi

# The beauty of outreach

**A**fter about 20 years as an academic researcher in experimental condensed matter physics, I got involved in outreach quite by chance. It happened a couple years ago, when some friends were writing a proposal for their company to run “edutainment” activities for the children in our town. Teaching at the university level had been an important part of my job for years, but I had never been involved in anything like what they were proposing. Nonetheless, it sounded like fun, so I suggested a partnership between their company and my university’s physics department. This is how I discovered the joy of outreach, which has ended up taking my career in an unexpected direction.

When the proposal was funded, I offered to help set up and supervise the activities—simple experiments that explored basic concepts such as light and energy using balloons, plastic bottles, batteries, and other everyday materials. With no experience in this kind of environment, I didn’t know quite what to expect. As I worked with the children, I was interested to discover that they gained as much from their interactions as from the content of the activities. Their excitement grew as they developed a community by collaborating or, more often, engaging in friendly competition. I found that I greatly enjoyed facilitating this kind of fun and socializing through physics.

After hearing about my work on these edutainment activities, the director of the physics department asked me to coordinate our departmental outreach program’s main project, which aims to enrich physics education for students in their final years of high school. I was grateful for this opportunity, which allowed me to make outreach part of my professional life. I have also found, unexpectedly, that it has been even more important on a personal level. It has helped me find a new level of community and connection with students, which has reignited my own excitement about physics and my appreciation of the relationships that can emerge from sharing in the scientific inquiry process.

Working with the graduate students involved in the project has shown me how collaboration can create a vibrant, creative community, which simultaneously makes the work more fun and leads to a better final result. When I started on the project, graduate students in the department merely helped conduct established educational activities, but soon, on their own initiative, many of them started to propose new activities related to their research. In turn, we started



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to work more as a team. Now, our meetings feature lively discussions about the status of the outreach project and possible directions for future development. Everyone contributes, leading to warm, meaningful personal interactions. Seeing the students thrive in this environment has made me realize that our outreach program serves not merely to explain scientific concepts, but also to share the idea that participating in science is a positive, enriching personal experience.

A few months ago, when the new director of the department asked me to take on the responsibility for the entire program, I accepted enthusiastically, effectively choosing outreach as my primary activity. I still plan to continue my research, because these activities are complementary and I like the way they complete my work life, but I know that doing both outreach and research will be a challenge. Nonetheless, I’m confident that it will be worthwhile, and I look forward to continuing to develop our outreach program. I want to engage the high school students as well as educate them so that they can experience the joy of sharing their scientific enthusiasm in a communal environment.

It all started for fun, but in just a couple years, my work life has completely changed. Now, when school students ask for advice about pursuing a career in science, I tell them that the beauty of science is engagement and collaboration with a diverse group of individuals. Thanks to outreach, I rediscovered this beauty. ■

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# Science

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