

Enlisting more nonscientists can boost confidence in research

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(PhysOrg.com) -- In an era of public skepticism about science and high-stakes decisions based on it, involving more nonscientists in research projects can boost public acceptance, understanding and the quality of the scientific results, a study co-authored by a UC Davis researcher suggests.

The study will be presented today at the annual meeting of the American Educational Research Association in Denver.

For years, the National [Science](#) Foundation has encouraged the inclusion of volunteers from the public in the collection of data for scientific research. Through its funding, the NSF has institutionalized such so-called “citizen science.”

But Heidi Ballard, an assistant professor of education at UC Davis, and a team of researchers from other universities urge going even further, to encourage an approach in which professional scientists and volunteers design and work together on research projects.

“Issues such as [climate change](#) and land-use decisions require us to look at the pieces and put them together in novel ways,” said Ballard. “So we ask, ‘What do local people already know or can contribute to science? And what can scientists contribute to educating these people?’”

Ballard and her colleagues developed a model for looking at three different levels of volunteer involvement. Their study, “Public

Participation in Scientific Research as a Tool for Ecological and Environmental Education,” looks at how the NSF and scientists might assess learning outcomes across all three models, which reflect varying levels of engagement among nonscientist volunteers.

“I’m really interested in figuring out how learning from each other can be facilitated by working together in a wide variety of ways on scientific research and monitoring, particularly in the environmental sciences,” Ballard said. “How does this contribute to a better understanding of environmental and social-ecological systems, and how to manage them and behave in sustainable ways as individuals and a society?”

Ballard and her colleagues surmise that the more empowered nonscientists are in the creation of a research project, the more likely they will view science as a tool to discover and solve problems.

Provided by UC Davis

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