REU Site: The Science of Language & The Language of Science
(award #1461039)
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PROJECT DESCRIPTION

Objectives  This proposal utilizes a unique lab where students are trained simultaneously in substantive research skills and the accessible communication of science. The Language Sciences Research Lab is a glass-enclosed space within a premier science museum. In the lab, Ohio State faculty and students conduct experiments on various aspects of language, inviting museum visitors to participate and learn about the research as it occurs. The lab is also the site for an innovative undergraduate course that trains students in science communication and informal science education, as they reach out to the public using interactive educational activities about core scientific results from the language sciences. Our goal is to provide an integrated experience that allows students to become intimately involved with both missions of the lab: they will learn how to conduct language science research as well as how to communicate with the public about science. This site will expand our population from the Ohio State Columbus campus students already established in the lab, to include students from regional campus and community colleges who might not otherwise be able to be involved.

Activities  Students will gain experience in research in the language sciences and in science communication. The program will include classroom training in linguistics and psychology content areas and in informal science education/outreach. Students’ practicum time will include traditional research activities (designing experiments, recruiting participants and collecting data, coding and analyzing data) as well as hand-on experience on the museum floor interacting with the public and learning techniques to communicate scientific concepts with a diverse audience. Students will produce two products: A research presentation about a substantive project they have contributed to in linguistics and an outreach activity designed to communicate research to the public.

Students to be Recruited  We will be recruiting from the Ohio region and will target students primarily from the regional campuses of Ohio State – unlike the main campus of OSU, these campuses have an “open enrollment” policy and attract a diverse student body; and also from local 2-year community colleges in the area – particularly Columbus State.

Intended Impact  We will provide an exceptional research experience for a diverse range of students, adding to the pool of future scientists, particularly in the area of the language sciences. We will also raise awareness and inspire students about the critical importance of communicating science ideas to the public and create an example for how to incorporate such communication training into traditional programs of research training.

INTELLECTUAL MERIT
The language sciences research conducted in the lab constitutes cutting-edge work at the intersection of rigorous linguistic analysis, social interaction, and cognitive processing. The results from these projects will significantly advance our
understanding about how language is used in a social context; how children learn to use language in context; and how language understanding is integrated with other aspects of cognition, such as attention and memory.

**BROADER IMPACT**

This REU site will help address the need to broaden the pool of future scientists, by bringing students who would not otherwise have easy access to research training into a high-quality research experience. Moreover, we will also be creating a community of faculty members committed to developing the scientific talents of a diverse set of students.

In addition, this site will serve as an example for how to integrate science communication into research training. Creating researchers who are better able to communicate what they do – particularly to the public and to policy-makers – is a critical need for maintaining a healthy long-term societal commitment to good science.