ENHANCING SCIENCE EDUCATION IN THE K-12 CLASSROOM BY BUILDING A NETWORK THAT CONNECTS EDUCATORS WITH LOCAL CUTTING-EDGE RESEARCH

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OBJECTIVES
1. Establish and sustain a network of scientists and educators to share resources and outreach opportunities
2. Assess whether The Scientific Research and Education Network (SciREN) enhances K-12 curriculum

THE TAKE HOME
Teachers often have limited time and money to implement creative classroom science activities.

SCIENCES HAVE RESOURCES THAT CAN HELP ENHANCE K-12 SCIENCE CURRICULUM

Scientific research is important, and it is exciting for students to connect to someone who is practicing science. SciREN allows us to bridge the gap between public school and higher education. It provides a ‘one stop shop’ for current information and a field of recent research.

The biggest impact that I see is that it gives students more real-world experiences. They can ask questions about the scientist’s specific research, but what courses and academic achievements and background knowledge so that they can think deeper about science systems, animal habitats, water cycle, weather, food chains, and force and motion, etc.

The Q & A sessions between the students and visiting scientists were lively and more enthusiastic and interested! Continuing discussion about the scientist and topics well after the visit...asking unexpected outcomes or challenges be learning experiences!

Current local research and a field of related research. Teachers often have limited time and money to implement creative classroom science activities. Current information is important because our textbooks are so outdated. The opportunity to talk and meet with scientists and getting real-world experiences is invaluable to incorporation into curriculum. It brings real science into the classroom and exposes students to the true nature of science.

Benefits to students from a scientist visit...

Communication between educators and scientists

Research as a resource

Barriers to science Outreach

No

Time

Effectively translating research

Establishing communication

Overreach opportunities have narrow focus

Difficulty maintaining communication

Utilizing a community or network approach will allow for more efficient and frequent outreach. Broader outreach impacts and continued communication between educators and scientists

SUSTAIN THE NETWORK

LOCAL APPROACH: Connect teachers and students to research that is being conducted in their backyard

"Create a place where students were familiar with in the more abstract concept of their research. This reinforced the idea that science investigation can be done anywhere." – Jess Purcell, Educator

Organizational Teams

Graduate students and postdoctoral researchers at NCSU provide training to the educators. Participants learn how to translate their research into curriculum.

Funding provided by university departments and institutional boards, foundations, and state and federal agencies.

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Organizational Teams

Grants and opportunities to translate research into curriculum.

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