The Benefits of an Embedded Educator on your Polar Research Team

Tim Spuck—PolarTREC Teacher 2012
tspuck@hotmail.com or 814-758-9527

Benefits to the Research Team

- Fulfilling the NSF Broader Impacts requirement
- Science, technology, engineering, and mathematics (STEM) educators are bring with them many to the workplace STEM skills as well as teaching and communication skills.
- Educators know how to navigate through the K-12 education system which often seems like a never-ending maze to the outside community
- Opportunity to engage next generation of scientists and engineers
- Improve ability to communicate research to a broad audience
- More (lower cost) labor to collect/process data
- Different perspective on research question
- Time/effort saved on trying to learn whole new field (education theory)
- Time/effort saved on trying to locate/reach audience.

Benefits to the Teachers and Students

- Teacher lives the experience and as a result they can teaching science/engineering instead of teaching about science/engineering”
- Increase content knowledge
- Increase understanding of scientific & engineering process
- Teacher builds a network within the STEM research community
- Increase motivation and excitement in teaching
- Positive change in classroom environment for students
- More likely to receive correct/realistic info and increased access to information.
- Exposure to STEM role models for students and science careers
- Improved performance on high stakes tests.

NOTE: Claims of benefits are supported by the education research. Contact me for citation list.

Programs that Can Provide Funding to Support Educators on Your Team

NSF Research Experience for Teachers (RET) - This can either be a supplement to an existing NSF award, or some Directorates offer RET site award programs. Contact NSF or visit http://retnetwork.org for more information about the program. NSF Engineering has a long history of supporting RETs.

PolarTREC - PolarTREC (Teachers and Researchers Exploring and Collaborating) is a program in which K-12 teachers spend 2-6 weeks participating in hands-on field research experiences in the polar regions. The goal of PolarTREC is to invigorate polar science education and understanding by bringing K-12 educators and polar researchers together. For more information about PolarTREC, visit http://www.polartrec.com or email Janet Warburton, PolarTREC PI at warburton@arcus.org or 907-474-1600.

For more information or assistance in embedding an educator, please feel free to contact Tim Spuck at tspuck@hotmail.com or call me at 814-758-9527. Thank you.