1-1-2007

Community Collaborations

Todd Campbell

Utah State University

Recommended Citation

Community Collaborations

As coeditor for this Community Collaborations issue of *The Science Teacher (TST)*, I am honored to have the opportunity to offer a few thoughts about the potential promise these collaborations offer students, teachers, and community members. I define *community collaborations* as circumstances that partner teachers, students, and community members in an effort to better understand the natural world. The National Science Education Standards offer the first assurance that community collaborations can be meaningful as they describe science instruction that educates students to "engage intelligently in public discourse and debate about matters of scientific and technological concern" (NRC 1996, p. 13). Community collaborations, if facilitated in a manner consistent with the Standards, can allow students to learn from and along with the community.

Many of the exemplars showcased in this issue are examples of the Science, Technology, and Society (STS) approach to teaching, "the teaching and learning of science in the context of human experience" (NSTA 2006). NSTA declares that "learning science in an STS context . . . students improve in terms of creativity skills, attitude toward science, use of science concepts and processes in their daily living, and in responsible personal decision-making" (2006). Through community collaborations facilitated via STS instruction, participants are offered space and a medium for learning rigorous science content and science processes concurrently as they engage in science with their community.

While STS instruction goes far to capture the essence of community collaborations, it may not succeed in capturing all community collaborations. Instances whereby teachers and students partner with scientists engaged in research at the forefront of their fields are such examples. Other examples of meaningful collaborations might find teachers and students using the resources, tools, and techniques offered by research scientists. While the possible community collaborations discussed here are far from exhaustive, it can be seen that they are all valuable.

Through the examples of community collaborations offered in this issue, it may become apparent that there is no "one size fits all" community collaboration. The collaborations are instead better categorized by their alignment with the Standards documents and research on teaching and learning. The Standards documents (AAAS 1993; NRC 1996) and research support instructional strategies that engage students in scientific inquiry to increase students' understanding of science (Chang and Mao 1999), understanding of the nature of science (Schwartz, Lederman, and Crawford 2004), and their interest and attitudes toward science (Cavallo and Laubach 2001).

The collaborations in this edition were selected because they move beyond participants as "databots" or participants collecting data by following the procedures of others without understanding the basis of the procedures (Polman and Pea 2001). The collaborations position students, teachers, and community members as producers of knowledge. They follow the creed of John Dewey when he proclaimed "I believe that education, therefore, is a process of living. . ." (Dewey 1897, p. 78). Community collaborations engage participants in "living," through experiences that push them to create, design, collect data, analyze data, make conclusions based on data, and share their conclusions with wider audiences. We hope that as teachers read this issue of *TST* they will see the potential for engaging their own students in such collaborations in the coming year and look to share those experiences in next year's issue.

Todd Campbell (toddc@ext.usu.edu) *is an assistant professor at Utah State University—Ephraim in Ephraim, Utah.*

References

American Association for the Advancement of Science (AAAS). 1993. *Benchmarks for science literacy*. Washington, DC: Author.

Cavallo, A., and T. Laubach. 2001. Students' science perceptions and enrollment decisions in differing learning cycle classrooms. *Journal of Research in Science Teaching* 38 (9): 1029–1062.

Chang, C., and S. Mao. 1999. Comparison of Taiwan science students' outcomes with inquiry-group versus traditional instruction. *The Journal of Educational Research* 92 (6): 340–346.

Dewey, J. 1897. My pedagogical creed. *School Journal* 54:77–80.

National Research Council (NRC). 1996. *National science education standards*. Washington, DC: National Academy Press.

National Science Teachers Association (NSTA). 2006. NSTA Position Statement. Science/Technology/Society: A New Effort for Providing Appropriate Science for All. *www.nsta.org/positionstatement&psid=34*.

Polman, J.L., and R.D. Pea. 2001. Transformative communication as a cultural tool for guiding inquiry science. *Science Education* 85 (3): 223–238.

Schwartz, R., N. Lederman, and B. Crawford. 2004. Developing views of nature of science in an authentic context: An explicit approach to bridging the gap between nature of science and scientific inquiry. *Science Education* 88 (4): 610–645.