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Letter from the Editor: The Role of Science Educators in Curriculum Development and Teacher Professional Development

The accountability movement in public education is the driving force in schools today. Federal and state educational policies in the United States, namely the No Child Left Behind Act (NCLB), have set the stage for the majority of activity in schools these days. Regardless of how we may personally feel about such policies, their reality should drive us to action. We must remember that our ultimate goal is to help children be as successful as possible.

School districts are left scrambling for strategies to meet federal and state guidelines. While the current emphasis of NCLB is mathematics and reading, science is not far behind. Now is the time for university-based science educators to begin partnering closely with districts whose schools have the future potential to be classified as low performing in science. State and other standardized tests for science can be used as a gauge of current school performance in science. Strong partnerships focused on targeted schools need to be developed to address identified needs before they turn into hardships for districts, parents, and children.

Partnerships could be defined by a variety of strategies designed to help school districts stay one step ahead of the policy makers. The two most potentially profitable strategies, not mutually exclusive, include science curriculum development and teacher professional development. Curriculum theory, applied to the development of quality materials, is widely needed. There exists a dearth of research regarding the impact of curriculum materials on student performance in science. Not all materials are created equal, and researchers and schools would do well to carefully consider the potential of materials before spending extensive time and resources adopting them.

Curriculum materials are not used in a vacuum—they are not teacher proof. Arguably, teachers may serve as the most critical factor in student learning. Research about the effectiveness of various professional development strategies is needed. Strong partnerships should apply research-proven professional development strategies in order to bolster teachers' effectiveness.

It is my hope that the *Journal of Science Teacher Education* will serve as the premier outlet for research-based strategies in curriculum development and science teacher professional development. I encourage science educators, whether university- or school-based, to submit manuscripts that provide practical, research-based solutions. Only when science educators pursue and disseminate proven strategies can we rest assured that every effort was made to not leave children behind.

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