An NSTA Position Statement: International Science Education and the National Science Teachers Association

Introduction

NSTA encourages and promotes international science education because it has the ability to improve the teaching and learning of science, as well as to "empower people, improve their quality of life, and increase their capacity to participate in the decision-making processes leading to social, cultural, and economic policies," as stated in UNESCO's human rights education mandate (UNESCO 2009).

The explosion of scientific and technological knowledge and capacity has contributed significantly to the global environment in which we now live (UNESCO 1999). For the majority of the world's citizens, almost all aspects of living are now affected by advancements in science and technology. The result is the emergence of many socio-scientific issues on which decisions must be made by individuals and communities for the mutual benefit of society. This new global perspective provides little room for citizens or nations to operate in isolation.

It is common for scientists to openly share ideas and knowledge at the global level; it is equally important for science educators to engage in this international exchange. After all, it is science teachers who must educate our future scientists and citizens and help them develop a world view that embraces cultural differences and belief systems. Recent studies have sought to compare student achievement in science at the international level. These comparisons have drawn attention to the need for global scientific literacy and have encouraged an open exchange of ideas, practices, and approaches in educating students in science (NRC 2003).

NSTA defines international science education as any activity or learning experience involving science teachers from different cultures or countries communicating with and learning from teachers and other educators to improve the quality of science teaching and learning and to support a worldwide view of the global implications of science and scientific phenomena.

Formal collaborations are one way to realize the goals of international science education. These collaborations should provide opportunities for preK–16 science educators to work together to improve science education worldwide and should

- be based on the human spirit of trust and openness, as well as a desire to reach a mutually beneficial outcome;

- seek positive results in the teaching and learning of science that exceed what any one organization could expect to achieve on its own; and

- mirror scientific collaboration worldwide and not let language, in and of itself, be a barrier (NSTA 2000; NSTA 2005).

NSTA believes that international science education should be a priority for all science educators. To embrace international science education, NSTA offers the following declarations.

Declarations

NSTA encourages teachers of science and science teacher educators at all levels and in all venues to

- view themselves, students, and teaching and learning in a global context;
- acknowledge the different value systems and cultures of diverse student populations;
- provide and use curriculum materials that includes an international perspective;
- learn about effective teaching practices in other countries and cultures;
- teach about the global impact and importance of scientific issues and concepts; and
- engage in international collaborations to improve the quality of science teaching and learning.

NSTA encourages school leadership (administrators, principals, department chairs, science coordinators, superintendents) to

- recognize it is crucial for science educators to understand students' cultural value systems;
- provide opportunities for science teachers to increase their knowledge and understanding of various world cultures;
- establish an environment in the school or district that encourages international and cultural awareness, understanding, and openness;
- encourage science educators to disseminate information about successful international collaborations; and
- support science educators who wish to participate in international collaborations and strive to provide access to systems and means for these collaborations.

NSTA encourages policy makers at all levels to

- fund and support programs that further the goals of international science education;
- support teacher professional development opportunities and programs that focus on international perspectives; and
- support international science education as a mechanism to raise the professional status of science educators.

NSTA encourages science-related organizations, associations, agencies, and businesses at all levels to

- create and fund international collaborations among educators and leaders;
- partner with other professional organizations to encourage and support international collaborations;
- provide opportunities for the dissemination of successful international collaborations and activities; and
- provide a forum for critical discussion of the various models of international projects and collaborations.

—Adopted by the NSTA Board of Directors
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