

EDITORIAL

As we approach the conclusion of our first year in publication, it is with great pleasure that we present this year-end edition of *IJSME*. In this issue, authors hailing from Australia, Canada, China, Greece, Korea, Taiwan, and the US present unique methodologies and new approaches to science and mathematics education. Two of the articles address educational reform in Asia, an undertaking that has met with much resistance due to inveterate societal traditions and the prevalence of examination-driven school systems. Bao Hui Zhang et al. survey the phenomena of science teachers in China by introducing an inquiry-based approach to teaching. Myeong-Kyeong Shin et al. follow groups of teachers from Korea participating in a US-based training program that advocates constructivist approaches to science learning. Both of these studies describe efforts to reform Eastern teaching practices through the adoption of Western inquiry-based education and constructivism ideals, and use varying methodologies of survey and experimental study. In the latter article, Shin describes a very special approach to in-service teacher education whereby teachers travel to a foreign environment to receive professional development training.

In regards to the integration of science and mathematics curriculum, Grady Venville et al. explore this theme in an Australian school project to build solar-powered boats. While this case study marks observable benefits of curricular integration to students when applying science concepts to real-world problems, the question of improvements in then conceptual understanding remains inconclusive. Concerning cross-cultural dimensions of science education, Hsin-Ping Huang and Larry Yore compare the environmental behaviors of students in Taiwan versus Canada by investigating the effects of gender, the media, and experiences with the natural outdoors. And finally, from Greece, Anna Tsatsaroni et al. apply Berstein's theory to analyzing pedagogical practices in science teaching. This is a novel and refreshing argument for the significance of sociology of education at preschool levels, and we would be pleased to see more insightful research along these lines.

Looking back to when we first launched the *IJSME*, one of our primary objectives was to emphasize cultural diversity in mathematics and



science education. Toward this end, the articles received and published thus far indicate an optimistic beginning, but also reflect ample opportunity for improvement. The overall acceptance rate for publication was approximate one-fifth of submitted manuscripts. Over the past year, we've received article submissions from 23 countries spanning all major continents. While this represents a wonderful mosaic of cultures, authors from English-speaking countries accounted for the largest proportion of submissions, followed by East Asian countries, and then Europe and other nations. It appears the traditional sources of research output are still dominating the international scene, and we would encourage greater input from writers whose primary language is not English in order that we may continue voicing and celebrating different cultural viewpoints.

As the articles took form, it also became clear that much work lay ahead in fulfilling our principle themes of curricular integration, cross-cultural perspectives, and the impact of computer technology on science and mathematics education. Over the past year, only 35% of the articles printed pertained to cultural issues in science and mathematics education research, no more than 10% explored the cross-curricular dimensions between mathematics and science education, and we have yet to publish any articles on the integration of new technology into teaching practices. As it appears, integration efforts in this profession still face many institutional and cultural barriers, but we hope that our readers will rise to the challenge and submit original articles in these much-needed areas of research.

Lastly, we extend deep gratitude to all who have lent generous support and participated in our endeavors during IJSME's first year. We value your articles and comments, and remain committed to striving for excellence in the year ahead.

Fou-Lai Lin
Editor-in-Chief