



## From the Editors

This issue of *K-12 STEM Education* concludes our fourth year of publication. From a modest and uncertain beginning, we have been fortunate to have published engaging and informative articles and research reports from students, teachers, researchers and STEM educators in higher education. We are gratified to have had, as of 31 August, over 25,000 visitors to our peer-reviewed journal, and nearly 90,000 page views.

Unfortunately, this is my last issue as Editor in Chief; my position as science specialist at the journal's parent organization, the Institute for the Promotion of Teaching Science and Technology (IPST) has been eliminated, so I will be moving on to other endeavors. I have been fortunate to have worked with a dedicated and hard-working colleague, Dr. Somchart Paisarnrat, who has been with the journal from the first day as Information Manager, and now Managing Editor. Without his skills in formatting, communication and layout, the journal articles would not be of such high quality.

The journal's Board of Reviewers have been amazingly supportive and diligent in their assistance in helping make timely important revisions in each article. I greatly appreciate their cooperation and patient explanations, as well as their ability to work to bring the publication together on time. The Associate Editors have been very supportive of our endeavors, giving useful feedback that helped the journal improve. To all of these skilled educators who give their time to assist *K-12 STEM Education*, my heartiest thank you!

Finally, and certainly not least, I want to thank all of the outstanding educators and creative students who have contributed articles to the journal. Their examples, research and ideas have made *K-12 STEM Education* a quality publication.

In this issue, four excellent articles are presented that look at STEM education from different perspectives. **Uffe Wilken**, a Danish geochemist, describes in "Lakes, Labs and Learning: How an Environmental DNA Citizen Science Project Makes Sense for High School Students, Researchers and Environmental Managers", an extensive project in identification of aquatic organisms throughout Denmark that included collaboration of the Danish Natural History Museum and students from 300 Danish high schools. "Attempting STEM Education in Informal Japanese Educational Facilities Through the Theme of 'Sand'" by **Shoko Sakata** and **Yoshisuke Kumano** describe outcomes of a study of STEM lessons for young learners at the Shizuoka (Japan) Science Museum that focus on using the familiar material, sand. **Barbara Martin** and **Anni Reinking**, in their article "Strategies, Research, and Examples for Elementary Teachers to Integrate STEM," provide ideas on how to successfully integrate STEM concepts into all elementary grade levels (K-6), research to provide support for the STEM integration ideas, and examples on how to integrate the ideas. In the fourth article, "Learning to Look, Looking to Learn," **Karen Rothschild**, **Marvin Cohen**, **Babette Moeller**, **Barbara Dubitsky**, **Nesta Marshall** and **Matt McLeod** describe a professional development strategy that helps mathematics teachers and special needs teachers collaboratively analyze why student answers that are often incorrect in problem solving are not often evident by informal observation.

We hope that you enjoy reading these informative articles, and as always, please give feedback. We welcome your comments.



L-R: John Stiles, Editor-in-Chief,  
Somchart Paisarnrat, Managing Editor

*Photo by Nanyarat Wichitrattakarn*