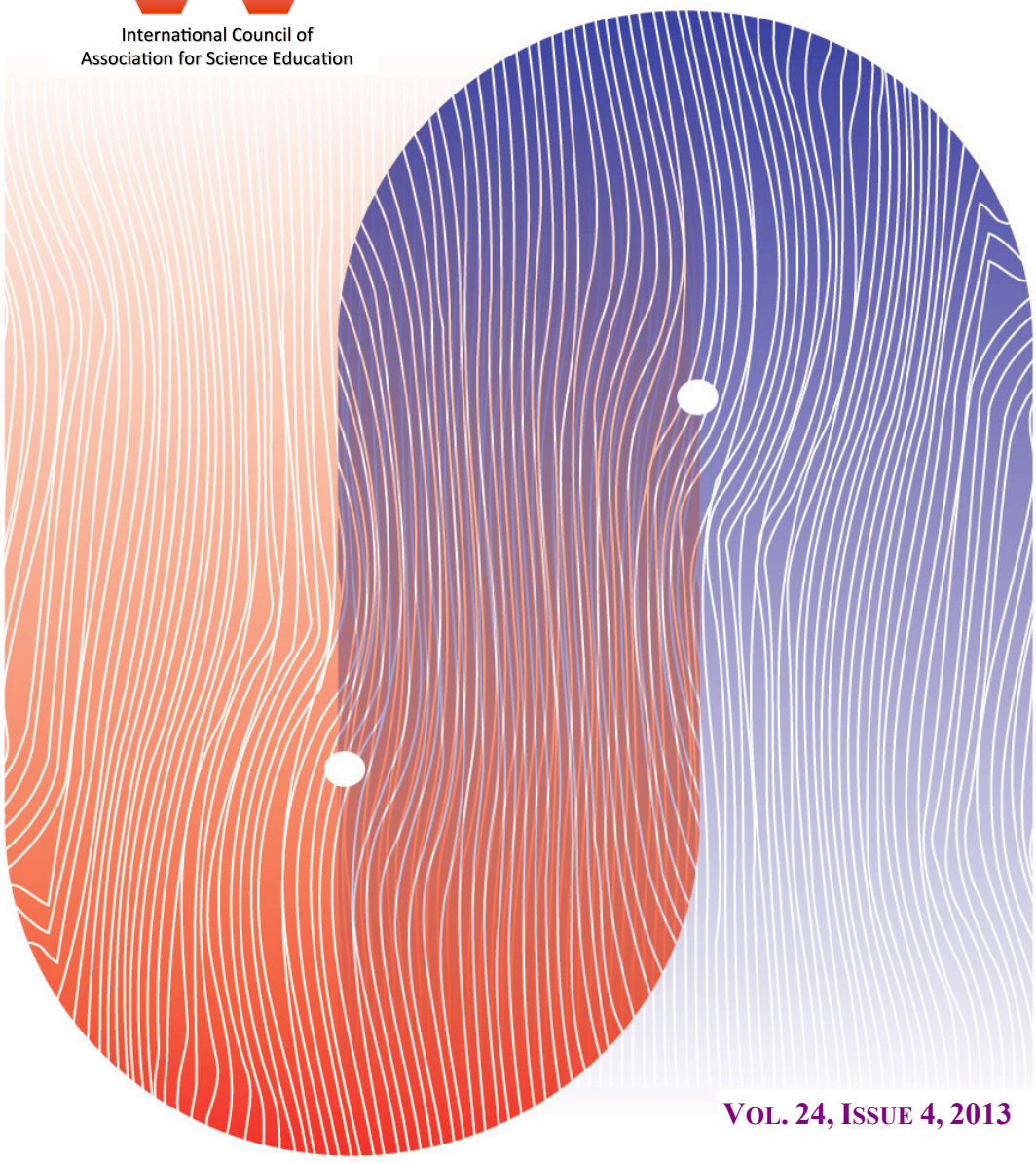
SCIENCE EDUCATION INTERNATIONAL



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International Council of
Association for Science Education

Supporting and promoting science education internationally

Editorial:
Innovating regional teachers and interdisciplinary science teaching

As the SEI aims at disseminating evident innovative stories of science education witnessed across the world, this issue is prepared to include the five empirical research articles from Turkey, Korea, USA, and Mauritius. Science teaching for pre-service and in-service teachers are dealt in all five articles with their research topics: teacher scientific literacy, attitudes toward science teaching, aquaponics (aquaculture and hydroponics), bioaccumulation, ESL (English as a second language) science teaching.

In Turkey, it has not been so long since the externally funded project "HEC World Bank National Education Development" examined and attempted to reinforce teacher-training facilities between 1994 and 1998. As a result, a compulsory teacher training course has been organized ever since (Egrilmez & Egrilmez, 2010). Due to the reform of teacher education placed at its earlier stage of professional development compared to the other countries, teacher scientific literacy and attitudes toward science teaching in Turkey have found to warrant accumulation of empirical researches (Bacanak & Gökdere, 2009). In this light P. H. Cavas, et al. demonstrate another piece of literature how Turkish teachers are prepared with required scientific literacy (SL) and attitudes toward science. Contrast to the previous literature, their level of SL was measured to have improved over the teacher training program. However, external factors were predicted to influence their SL significantly. Among the pre-service teachers, mother' education level caused a significant mean difference: mother's low education level indicated their low SL.

Another article by L. Turkmen unravels the Turkish science teachers and their attitudes toward science teaching by means of the instrument, Science Teaching Attitude Scale II (STAS-II). Similar results found by Kim, et al. (2013) were reaffirmed that science teachers possessed both knowledge-transmissive and inquiry-based teaching strategies as their widened repertoire:

> No straightforward evaluation of the teachers' beliefs and practices complying with the authentic definition or the levels of inquiry teaching was possible regarding the multiplicity of ways participants organized inquiry teaching. (p. 379)

From Mauritius, P M Cyparsade, et al. address science education as a national

infrastructure resolving social insecurity. In specific, exploring how to motivate the pre-vocational students who are characterized by their lower motivation in school learning was the research question. Their article demonstrates evident improvement in teaching science for the less motivated students by means of balancing mother language and English.

The other two studies conducted in Korea and USA broaden the domain of science education through bioaccumulation and aquaponics. Both topics require more interest from science educators and teachers, in that they are interdisciplinary concepts to concern physics, life science, and chemistry. In the perspective of sustainable development, these topics will be more highlighted for public understanding of environment and ecosystem.

Lastly, I, Bulent Cavas, would like to address that this issue means more than any previous ones, because it is my last editorial work. The former editors served about 3-4 years for SEI. Since 2009 I have been working with Dr. Jack Holbrook in order to prepare the articles and publish them for our SEI users who seek knowledge and information for improving science education in their community. Dr. Minkee Kim joined editorial board as Assistant Editor in 2012 to work hard on preparing articles and publishing SEI issues. For that reason, I take this opportunity to thank to Dr. Holbrook and Dr.Kim for their great efforts they have done for SEI. I also thank to all authors and reviewers for their contribution. It was really great experience for me to work and collaborate with them. The new ICASE Board will decide the new editor soon and the new editor will start collaborating with all authors who are still waiting for review results. Since I was elected as President-Elect of ICASE, I will devote myself to ICASE, and you can be sure that my support will continue to the new editorial board.

Reference

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