

THE ASIAN ASSOCIATION OF BIOLOGY EDUCATION'S 26TH BIENNIAL CONFERENCE

A REPORT

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Held on the 20–23rd September, 2016, the 26th biennial conference of the Asian Association of Biology Education, focused on encouraging communication between educators and researchers on practices in and challenges of current trends in Biology Education. This report captures some of the highlights of this event.

United in the idea that a networked teaching community would be an advantage both for students and teachers, a group of Biology teachers in Philippines started the non-profit organization – Asian Association of Biology Education (AABE). That was 1966. Today, AABE has members in 16 Asian countries. The 26th biennial conference, that marked the beginning of India chapter, was held in September 2016 in Goa. The theme of this year's conference was – Trends in Biology Education and Research: Practices and Challenges. The conference was inaugurated by the Chief Minister of Goa, Lakshmikant Parsekar, who delivered a short but apt talk about the role of a teacher; punctuated with examples from his own life.

Satyajit Rath, faculty at National Institute of Immunology, New Delhi,

delivered a talk that was very pertinent to the meeting's theme. He discussed current practices in Biology education, drawing attention to worrying trends that were resulting in significant losses in learning. Being an immunologist, he spoke about how, for example, current practices in biology education were narrowly centered on diseases, when they should actually go beyond diseases to encompass health and its repercussions on society. Like with many other subjects, teaching learning processes in biology appear to be focused not on understanding health, but passing exams. Prof. Rath wondered if this trend could change and the biology syllabus shift its focus from a reductionist view of, say 'hygiene', to a broader one, of say 'health'; and highlight

Objectives of AABE

- Improve teaching of (and promote research in) biology in Asian countries.
- Bring together biology educators of Asian countries at periodically held conferences.
- Establish an agency in Asia to serve as a center for the exchange of teaching materials, journals and research papers, specialists and teachers in the biological sciences, and to open channels of communication between this agency and agencies in different countries doing similar work.
- Promote the creation of biological science teaching centers in each Asian country.



Fig. 1. Satyajit Rath, from the National Institute of Immunology, Delhi, speaking at the AABE conference.

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"[This conference] definitely gave me an understanding of the current situation of biology education in India."

— A participant.

interconnectedness, for example between the health of individuals and communities they belonged to. Can the purpose of education be "re-purposed" from a job-directed education with information-overload for students, to focus on raising informed citizens who can think on their own?

Rohini Balakrishnan, Professor from the Indian Institute of Science (Bangalore), took the participants through a very enlightening process. Pointing out why Natural History should be an important part of Biology, she drew attention to the fact that today, unfortunately, very little of it makes any appearance in the average Biology classroom. This manifests itself in the process of hiring of new faculty — rarely do departments hire those trained in Natural History. Biology is all around us, and yet sadly 'modern biology' has become all about laboratories and molecular analysis, with no room for learning from simply observing nature. She pointed out how our fisheries, agriculture, pharmaceuticals, health issues, and even the current crisis brought on by climate

changes, are all dependent one way or the other on Natural History. Human welfare cannot be driven only by statistical analysis of molecules; it must have a sound basis in natural history. Her point resonated with that of Satyajit Rath, who described the same as a dominance of reductionism in biology education.

No doubt our education system imposes a lot of constraints — the syllabus content is continually growing, and the rush to cover all that before exams can be heavily taxing for teachers and for students. But as Swati Patankar, faculty from IIT Bombay, showed — it is still possible for teachers to "break away from the mould" — there is considerable autonomy that teachers have when they are in class. When managed well, the outcomes of this approach can be extremely impressive. To support her point, she shared examples from her

"I was very touched and warmed to meet some very enthusiastic and dedicated school teachers. I would like to make special mention of Mr. Rajesh Patil... Not only were his ideas creative and innovative, he had so much energy and enthusiasm, I walked away thinking that this was the key to being a good educator and was truly inspired"

— A participant.

class, where even factual information is taught and asked (in exam questions) in the context of a bigger problem that students can relate to. As a result, facts that they would have otherwise just learned by rote become meaningful to students. Instead of being mere spectators who passively watch the teacher in class, students therefore become active participants in their own learning process.

"I have also noticed a divide between the flexibility of research-based institutes vs. teaching-only colleges with respect to teaching courses. This came through in Swati Patankar's talk, where she illustrated creative ways in which questions can be asked in the undergrad setting."

— A participant.

Being part of the conference definitely made many of us sit up and think more deeply about the pressing need to start the process of improving Biology education. This need is, in fact, a big reason driving the formation of an Indian chapter now, and the Asian association over 50 years ago. The founding members felt that a networked teaching community is more empowered to learn from each other, and make a difference in the overall education system in the process.

"It was nice to see enthusiasm of many teachers who, in spite of challenging situations, are trying their best to make learning exciting." – A participant.

The conference provided a rich platform for the exchange of ideas by bringing together people from different backgrounds, ideologies and

practices. Given that it was attended by approximately 100 participants, the conference offered a tremendous opportunity for collaborations. Did it succeed in encouraging teachers to break away from the shackles that limit Biology education? In a very limited way, perhaps, but we see this as a good beginning. Networking opportunities

afforded by meetings such as these can go a long way in bringing motivated teachers together. It is only when people with different approaches and philosophies towards Biology education come together, can we expect a serious overhaul.

Teachers in India can join this community by contacting the Executive Director of the Indian chapter, Narendra Deshmukh (nddeshmukh1965@gmail.com). The AABE also publishes a journal – The Asian Journal of Biology Education, which can be accessed online (<http://www.aabe.sakura.ne.jp>).



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