Inquiry-Based Science Education – For the future generation of researchers

African European Mediterranean Academies for Science Education
Conference Report Release

An excellent science and research system is directly related to the quality of its science education system, which has a monumental impact on the careers – and numbers – of future young scientists, researchers and innovators. This is true for all countries regardless of the stage of their development. A sound science education system accelerates a nation’s economic growth and boosts its innovation capacities, which ultimately raises the standard of living for its citizens. It can also improve the overall health of the population and help prevent the development and spread of dangerous extremist ideologies. However, science education is threatened by factors such as the global economic crisis and limited funding for educational institutions.

By implementing Inquiry-Based Science Education (IBSE), science educators can activate the natural curiosity of young pupils and increase the number of young people who choose to pursue scientific careers. Instead of talking at children, teachers can employ an investigative approach – that is, guiding students as they ask the questions and actively seek the answers. “Because curiosity and scientific interest are already present during the first years of childhood, the issue is not to instill these elements in young people, but rather to maintain and preserve them,” states ALLEA President Professor Günter Stock.

The African European Mediterranean Academies for Science Education (AEMASE) initiative is committed to promoting science outreach to society and to improving the quality and accessibility of science education in schools throughout the eponymous North-South region. To achieve these aims, one of AEMASE’s key activities is implementing IBSE in more schools and supporting the continued professional development of science educators in IBSE methodology and practice. In the long term, the AEMASE partner institutions, which come from all three geographical areas, seek to contribute to the steady development of quality science and innovation systems by focussing on stimulating and supporting the future generations of researchers and innovators.

In this context, key AEMASE partner institutions held an international conference on science education in Rome in May 2014, hosted by the venerable Accademia Nazionale dei Lincei. Participants from six continents shared their professional experiences with IBSE and discussed best practices, challenges and future collaboration opportunities. The conference brought together representatives from three crucial areas of expertise: science, education, and policy. The outcomes of this conference are condensed in the enclosed report which serves as a testament to the relevance and importance of quality science education for modern societies.

The digital versions of the report and the accompanying primer are downloadable at www.allea.org. Printed copies may be ordered from the ALLEA secretariat for further dissemination to interested institutions or individuals.

On behalf of our AEMASE partners, we wish you enjoyable and informative reading.

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