

Report on SEA-BES Regional Consultative Meeting and Workshop for the Development of the Common Core Regional Learning Standards in Science and Mathematics

20-22 October 2015, SEAMEO RECSAM, Penang, Malaysia



With financial support from British Council Regional Office, British Council Thailand, Institute of the Promotion of Teaching Science and Technology, Ministry of Education Thailand, and SEAMEO Secretariat, Bangkok, SEAMEO RECSAM organized and conducted SEAMEO Basic Education Standards (SEA-BES) Regional Consultative Meeting and Workshop for the Development of the Common Core Regional Learning Standards (CCRLS) in Science and Mathematics on 20-22 October 2015 at SEAMEO RECSAM, Penang, Malaysia. Dr. Hj Mohd Johan bin Zakaria, Centre Director of SEAMEO RECSAM welcomed the delegates while Dr. Gatot Hari Priowirjanto, SEAMEO Secretariat Director delivered the keynote address. Other speakers during the workshop were Professor Kerry J Kennedy, Hong Kong Institute of Education, Hong Kong; Prof Masami Isoda, University of Tsukuba, Japan (via Skype), and Dr. Mark Windale, Sheffield Hallam University, UK, SEA-BES project consultants; Dr. Wanida Tanaprayothesak, representing Dr. Pornpun Waitayangkoon, IPST; Dr. Suhaidah Tahir, Deputy Director, R&D, Dr. Hj Mohd Sazali bin Khalid and Mr. Dominador Dizon Mangao, Specialists, R & D RECSAM cum coordinators of CCRLS in Science and Mathematics, respectively.

The objectives of the meeting and workshop were to get agreement on the draft framework for the Common Core Regional Learning Standards in Science and Mathematics and the draft aims and domains/strands/content topics and generic skills across the Key Stages (Key Stage 1- Grades 1 to 3; key Stage 2- Grades 4 to 6; and Key Stage 3- Grades 7 to 9). The draft CCRLS in Science and Mathematics frameworks were the outputs from the series of SEA-BES workshops #1 to #6.

A total of 61 delegates attended the event composed of 17 curriculum specialists in science and mathematics from the nine (9) Ministries of Education of SEAMEO Member Countries

(Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam); 16 specialists from SEAMEO centers (QITEP in Science, QITEP in Mathematics, SEAMOLEC and RECSAM); seven lecturers from teacher training institutes (IPG Penang, IPG Tuanku Bainun and IPG Ipoh); 13 science and mathematics master/experienced teachers from Penang State; three consultants (Prof. Kerry J Kennedy, Hong Kong Institute of Education, Hong Kong; Prof Masami Isoda, University of Tsukuba, Japan; and Dr. Mark Windale, Sheffield Hallam University, UK); two representatives from national science and mathematics centers (IPST- Dr. Wanida Tanaprayothesak and UPNISMED- Dr. Soledad Ulep; and three guests (SEAMES Director, representatives from British Council Malaysia- Ms Siew Hui Liew and British Council Penang- Ms Peggy Lim).

The meeting has agreed on the following matters:

- the proposed six domains in CCRLS in Science, namely; (1) Science Inquiry, (2) Life and the Living World, (3) Material World, (4) Energy and Changes, (5) Earth and Space, and (6) Science, Technology and Society while the
- The proposed four domains in the CCRLS in Mathematics, namely; (1) Numbers and Algebra, (2) Geometry, (3) Measurement and Function, (4) Data Representations and Statistics.
- Draft aims of the SEA-BES CCRLS which states *“To provide world-class learning standards in Science and Mathematics, including 21st Century skills that can be used as benchmarks in SEAMEO Member Countries to ensure all students have access to fundamental knowledge, skills and values in order to be socially responsible, globally competitive and sustainable.”*

Various comments and suggestions and other significant inputs were shared by the MOE curriculum specialists and experts to improve further the draft Standards. Among these are the following:

- There is a need to include in the document a detailed explanation on the development process of the draft Standards.
- There is a need to describe how 21st Century skills including HOTS be embedded in the Standards.
- There is a need to realign the topics/sub-topics in the various domains; progression of the topics across the three key stages.
- There is a need to include Preface, Introduction, Aims of SEA-BES CCRLs and specific aims per subject – Science and Mathematics.
- Whether to use the term “Learning Outcomes” or “Learning Standards” in the document
- Some countries do not teach Science in Grade/Year 1-3.
- Learning outcomes be put under the terminal grade of each key Stage (Key Stage, 1, 2 and 3).

- Conceptual framework and Definition of terms need to be added in the document.
- It is good to create a “Grade Level Learning Area Standards”.
- The level of difficulty of the content from one grade level must be evident.
- It is good to add a column for “Performance Standards”.
- Learning outcomes as written in the draft are actually “Learning Competencies”.
- There is a need to describe the “Domains”.
- Let MOE curriculum experts take back the document to their country, study and give feedback on how the document is further improved to cater to SEAMEO mission and vision.

Next Steps

RECSAM will review and revise the draft of the SEAMEO CCRLS in Science and Mathematics in terms of the scope and sequence of topics/sub-topics per domain and progression into key learning stages and from the comments and suggestions shared by the delegates. After making the changes RECSAM will send to the MOE curriculum experts via their email the revised draft for further review. The expertise of Penang master teachers, IPG lecturers and RECSAM specialists will again be tapped in the planned series of SEA-BES Workshops tentatively set on 27-28 January 2016 and 22-24 March 2016 to revise and finalize the Common Core Regional Learning Standards in Science and Mathematics. Likewise RECSAM will prepare project proposals to seek financial assistance to fund the next regional meeting and workshop tentatively set on 22-24 March 2016 from donor-agencies and institutions such as the Newton Fund, CRICED University of Tsukuba, Japan, and British Council with the guidance of SEAMEO Secretariat. .



