

## **Report of Meeting on Fusion of One Belt One Road Civilizations Curriculum Design for Primary School in Bangkok**

24-26 August 2018

National Science Museum of Thailand, Bangkok

### **Achievements:**

1. The Malaysian and Chinese teams presented the suggested OBOR teaching and learning resources respectively.
  - I. The resources by the Malaysian team were in the form of a module consisting the background information on the OBOR Fusion of Curriculum Project and the curriculum framework. The second part comprised the learning module regarding Zheng He and his expedition. There are four different stories or units under Zheng He's expedition: Zheng He the Great Navigator, Investigating Zheng He's Junk, Why Spices are so Important to Us and How Stars Help People in Their Travels. The four stories are interconnected. Each unit is developed based on the same frame work that comprises the story, the activity, connectivity, assessment, vocabulary and reference. The activity has its own title, objectives, grade or level, induction set, materials, procedure and worksheet. The Malaysian team also presented a sample lesson plan based on the materials developed with emphasis on Inquiry Based Science Education (IBSE) as the basic approach in carrying out the activities.
  - II. The resources presented by the team from China were in the form of three books under three different titles: Innovation of Water Resources in the Silk Road, The Amazing Architect in the Belt Road Countries and Ocean Navigation in the Maritime Silk Road. Each book has some historical write up and fun facts related to the science concept being learnt, question, observation, activity for students to try (try this) with the materials and procedure, words to know and follow up activity.

### **Follow – up Actions:**

1. Discussion and comparisons were made between the two resources by the Chinese and Malaysian teams. Some suggestions were made to add to the content of resources. The working group panel members agreed on the following:
  - I. The materials must be compiled in one book that shows integration between the materials developed by China team and Malaysian team.
  - II. The content of the OBOR Module should have the following structure and sequence:
    - a. About FoCed (background, framework, T&L))
    - b. Part 1- land
      - Innovation of water resources in the silk road (China)

- **Note: Activity - Game about fresh water access: [ssec.si.edu/Aquation](http://ssec.si.edu/Aquation) – will be added by the team from China**
- **The water pump (refer book on Discoveries in Islamic Countries)**
- **The amazing architect in the Belt road countries (China)**
- **Assessment (during teaching and learning activity- with the statements of learning outcome)**

c. Part 2– maritime

- Zheng He’s Expedition - what could we learn (Malaysia)
- Contents that need to be included:
  - I. **Zheng He’s voyages to Moluccas (Spice Island)**
  - II. **Zheng He’s travel to Africa (Mombasa)**
  - III. **Activity on astrolabe (refer the discovery in Islamic country) and Ibn Haytham and the discovery of the science of light**
  - IV. **Activity – on recipe using spices (Indonesia)**

*Note: Activity on junk and weighing and counting will be done by China*
  - V. Ocean navigation in the maritime silk road (China)
  - VI. **Comparisons on junks (China/Arab/Europe)- China**
  - VII. **Weighing and Counting from “Balance of Wisdom” LAMAP “Discoveries in Islamic Countries”**

(note: Items in red are suggested additions)

d. the content of the teaching and learning materials should comprise the following :

- The story/ the write up (material for students) that contains the historical facts, scientific discovery/concept and questions/problem)
- Activity that includes focus question, observation, materials, Inquiry /hands (involves *formulation and testing student’s hypotheses, analysing, interpretation, conclusion and communication*)
- Vocabulary/words to know
- Worksheet (student’s materials)
- Connectivity (value)
- Applying the knowledge to the current situation
- v) Assessment (at the end of the module) Assessment (during teaching and learning activity- with the statements of learning outcome)

2. The drafts of the compiled and integrated materials need to be completed by the 1<sup>st</sup> week of September 2018.
3. The integration of the materials will be done by the Malaysian team to be ready for the next working group meeting on 16&19 September in Beijing. This meeting will focus on the finalisation and the planning for piloting in 2019 which includes preparation for guidelines for the pilot.

### Members of Working Group

1. Dato {Ir} Lee Yee Cheong – Chairman IAP SEP Global Council}

2. Dr. Chen Wi (China) - Assistant Researcher, Institute for the History and Natural Sciences, Chinese Academy of Sciences,, Beijing, China
3. Prof. Ye Zhaoning (China)- Associate Professor, Research Center for Learning Science, Southeast University, Nanjing, China
4. Datin Maharom bt. Mahmood – former head of History, Curriculum Development Division m(Malaysia) and expert in history
5. Puan Salbiah Mohd. Som- senior lecturer Kolej Matrikulasi Selangor and expert in science curriculum and inquiry-based science education
6. Dr. Aphiya Hathayatham – Vice President, National Science Museum Thailand and expert in science communication
7. Dr. indarjani – deputy Director, SEAMEO QITEP in Science, Indonesia, expert in science education
8. Dato’ Dr. Sharifah Maimunah Syed Zin – Director, International Science, Technology and Innovation Centre for South-South Cooperation under the auspices of UNESCO (ISTIC) and former director of Curriculum Development Division, MoE Malaysia. Special Assistant to IAP SEP Global Council Chair
9. Dr Lazzatk Kussainova, from Kazakhstan

**Absent (with apologies)**

1. Datin Seri Nor Zamani Abdol Hamid – Director , Private Education Division and expert in history curriculum, MoE Malaysia
2. Puan Zainon Abdul Majid – head of Primary Science, Curriculum Development Division MoE Malaysia. Science Curriculum Expert
3. Dr. Tasneem Anwar-Assistant Professor, Science Education, Aga Khan University, Pakistan

**Observers**

1. Prof. Manzoor Soomro – President, ECO Science Foundation and member IAP SEP Global Council (Pakistan}
2. Dr. Carol O’ Donnell – Director, Smithsonian Science Education Centre USA and member IAP SEP Global Council
3. Dr. David Wilgenbus – CEO Office for Climate Education and expert in IBSE (France)

**Prepared by**

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