

Structure and Governance of the IAP Science Education Programme (SEP) Rules 2014 (proposed adjustments March 2015)

1.0 Preamble

The 2013 IAP Conference and General Assembly in Rio de Janeiro adopted two top priorities of IAP, namely Science Literacy and Science Advice to Government. IAP Co-Chairs have decided that Science Literacy will be part of the SEP's mandate. This is indeed the right decision as Science Literacy is an integral part of Science Education in extending the understanding of Science and Technology to society at large. The IAP Executive Committee at its meeting in Canberra, Australia, 31 October-1 November 2013, has endorsed the priority scope of Science Literacy for SEP as Science Outreach and Communication with Society.

With the extended scope of SEP, it is necessary to update the SEP Rules governing its structure and governance. IAP SEP Rules (2014) took effect from 1 January 2014 but at its meeting in October 2014, the SEP Global Council felt some minor adjustments would help to clarify the rules further. This document incorporates these changes.

2.0 General Objective of SEP

The grand challenges of this century are the eradication of global poverty and the mitigation of global climate change in the face of a growing world population consuming beyond the resources of this planet Earth. There is insufficient understanding among the global population of the vital contributions that science, engineering and technology make in meeting these and other grand challenges.

Since Rio+20 (in 2012), the United Nations have commenced an intensive, global, multi-stakeholder consultation on the post-2015 development agenda to replace the UN Millennium Development Goals (MDGs). The consensus will result in the adoption of 17 UN Sustainable Development Goals (SDGs) by the UN Summit General Assembly in 2015. Science, technology and innovation pervade the SDGs.

Therefore the general objective of SEP is to disseminate throughout the world the appreciation of the values and aims of science and of scientific endeavour through lifelong learning.

3.0 Specific Objectives of SEP

To achieve the general objective of SEP requires action through both formal science education and through wider activities to improve the overall standard of scientific literacy in society. The ongoing Inquiry Based Science Education (IBSE) programme of IAP SEP has reached critical mass in many parts of the world whereas Science Literacy is a new initiative of IAP SEP. The

specific objectives of SEP are therefore presented under two separate headings - namely Science Education and Science Literacy - for the time being to reflect this difference in maturity of the activities.

3.1 Science Education

1. To improve the quality and relevance of science education in all countries and regions of the world.
2. To promote Inquiry Based Science (IBSE) Education and Science Technology Engineering and Mathematics (STEM) Education in all levels of education as a way for students to attain understanding of fundamental scientific concepts in particular and evidence-based critical thinking skills in general.
3. To actively involve science academies, social science academies, academies of engineering and technology, scientific communities, ministries of science and education and decision makers in working with educators, teacher-trainers and scientists in the task of educating the future generation about science, scientific thinking and the impact of science and technology on society.
4. To promote international collaboration at the regional and global level among all stakeholders in IBSE/STEM.

3.2 Science Literacy

1. To promote the understanding of science, engineering and technology through engagement with society across a wide range of communities and contexts.
2. To encourage and engage with international and regional organisations, like the UN, UNESCO, development banks, APEC, OECD, ASEAN, the African Union etc., in order to expand scientific literacy through their programmes.
3. To promote the formation of Parliamentary Science and Technology Committees and President/Prime Ministers' Science Advisor Offices in developing countries.
4. To partner the mass media for societal outreach of science and technology.
5. To interact with social media for direct communication with a wide range of communities.
6. To acquaint and engage the public with the advances of and debates in science, engineering and technology through lectures, presentations and forums.
7. To engage with science museums and science activity centres and to promote their establishment (either actual or virtual) in countries where they do not currently exist.

4.0 Participation in IAP SEP

4.1 IAP Member Academies

IAP member academies are urged to adopt the IAP Science Education Programme (SEP). Every member academy is requested to nominate a Focal Point or contact person to be registered with the IAP SEP Secretariat. The contact person will have the responsibility of informing his/her academy about IAP SEP activities and will present to IAP SEP the opinion of his/her academy in matters regarding SEP and its activities.

4.2 Regional IAP SEP

There are four geographic regions where IAP Regional Networks are actively carrying out Regional SEPs. These IAP Regional Networks are in the Americas, Africa, Asia/Pacific and Europe. The IAP SEP Global Council will work with the Regional SEPs, encouraging them to extend their programmes to include the wider concept of Science Literacy.

The governing body of the Regional SEPs is a Council in which all Focal Point persons designated by academies from that region are invited to participate. Representatives from the sponsoring regional networks and the chair of the Global Council of the IAP SEP are invited to attend as permanent observers.

1. Regional SEP Councils will meet periodically to:

- receive reports about activities carried out in the framework of the regional SEP;
- discuss and approve new initiatives and actions to be included in the SEP;
- elect a Regional Coordinator of the SEP from among the academy Focal Point persons from that region;
- to approve regional fund raising activities.

2. Regional SEP Coordinators:

- will have the responsibility for the execution of the activities approved by the Regional Council of the Regional SEP. The term of this office is 3 years, with the possibility of re-election for one more term of 3 years;
- will represent the Regional SEP at the Global Council of the IAP SEP;
- should secure the logistic and secretarial support from a Regional Network or from an academy in the region;
- will present proposals for external (non-IAP) funding initiatives for the Regional SEP to the IAP Coordinator, who shall inform the Chair of the Global Council of SEP and the IAP Executive Committee of these proposals.

5.0 Governance of IAP SEP

5.1 The Global Council of SEP

The main governance of the IAP SEP will reside in a Global Council. The Global Council will comprise up to 12 advocates and experts in the field of science education and science literacy. They should come from countries covering wide geographic representation and should have different expertise in relevant areas of science education and science literacy. Gender and

generation balance should also be important considerations. The candidates should preferably be nominated or endorsed by IAP member academies.

Nominations for the advocates and experts should be considered by the Global Council Secretariat, which will make recommendations for their appointment as members of the Global Council to be approved by the IAP Co-Chairs in consultation with the Chair of the Global Council and the IAP Executive Committee.

Their appointment shall be for 3 years with a possible re-appointment for another 3 year term.

The Global Council will have as ex-officio members the Immediate Past Chairman of the IAP SEP Global Council, the Coordinators of the Regional SEPs, a co-chair of the Global Young Academy, the representative of the host academy of the IAP SEP Global Council Chair, and a representative from the IAP Secretariat.

The Global Council will:

- prepare an annual or biannual programme of activities for approval by IAP;
- oversee the implementation of the programme;
- ensure wide dissemination of the results of IAP SEP activities;
- submit an annual report of SEP activities to IAP.

5.2 The Chair of the Global Council

The Chair of the Global Council shall be appointed by the IAP Co-Chairs in consultation with the IAP SEP Global Council Chair and IAP Executive Committee. The person to be chosen for this responsibility should have recognized experience in science education and science literacy and shall have the commitment of support from his/her national academy. The term of the Chair of the Global Council is 3 years, with a possible re-appointment for a second term of 3 years.

The Chair of the Global Council:

- shall present the report of the SEP to the IAP and will be the principal authority representing IAP SEP vis-a-vis other institutions;
- will present to IAP proposals for SEP global activities prepared by the Global Council and to be implemented by SEP members and IAP member academies;
- shall make arrangements, including securing financial support (actual or in-kind), for the organization of the IAP SEP biennial conference.

5.3 International Advisory Board (IAB)

The Chair of the Global Council with the approval of the IAP Co-Chairs shall appoint pre-eminent advocates of science education and science literacy to the IAP SEP International Advisory Board. Candidates should include past IAP SEP Global Council members who have given sterling service to the IAP SEP.

Members of the IAB will give advice and guidance to the IAP SEP Global Council Chair and act as resource persons for IAP SEP events as and when necessary.

6.0 The Secretary of the SEP

The IAP SEP Secretary will be designated by the IAP Co-chairs from within the IAP Secretariat. This person will:

- provide executive support to implement the activities decided by the Global Council of SEP;
- be a non-voting member of the Global Council;
- act as a liaison between Global Council Chair and the other activities or programmes of the IAP
- maintain an up-to-date record of membership of the Global Council including dates of appointment / re-appointment and length of service.