

Foreword

This material 'Assessment in Primary Science: Workshop Modules for Professional Development' is a collaborative project between UNESCO and the Commonwealth Secretariat. It is a direct result of an earlier project in primary science which took place between 1985 and 1992. The first project was concerned with developing process-based learning in science in primary school. It was an initiative once again supported by UNESCO and the Commonwealth Secretariat which drew on some work in this area already undertaken by the Committee on the Teaching of Science of the International Council of Scientific Unions (ICSU). The project convened several international workshops and regional seminars which culminated in the publication of a new UNESCO handbook – the '*UNESCO Sourcebook for Science in the Primary School*' by Wynne Harlen and Jos Elstgeest, 1992. The sourcebook is now included in the UNESCO Teaching Pack distributed to Member States.

During the operation of the first project, concern was expressed about the assessment of pupils. The existing practices of assessment were inhibiting the changes in teaching style and learning objectives which were necessary for learning with understanding through the use of process skills. It was clear that the established ways of assessing pupils emphasised testing recall of information and paid little attention to the outcomes which were the aims of process-based activities. To promote this learning approach, it is necessary to ensure that assessment relates to achievement of understanding of the development of process skills and scientific attitudes.

These identified needs gave rise to the assessment project with the aim of developing activities and materials designed to improve assessment skills for use in the training of teachers and of others involved in education. It was recognised that changes are needed both in terms of formal tests and examinations, used to summarise achievement and sometimes to select and grade children, and in the ongoing assessment of teachers for training purposes. Thus the materials had to reflect these and also to be sensitive to the many different primary education contexts, including those where there are few resources, large classes and untrained or inexperienced teachers.

The assessment project began in 1992, at a workshop in Lagos, Nigeria. It brought together a small group of experienced science educators to plan the form which the materials might take, and to decide on the procedure for trialling and evaluation. Draft materials were then prepared by the project leader, Professor Wynne Harlen, and these were distributed for trialling in various countries, mostly the developing countries. The draft materials were used to run workshops for teacher-trainers, practising teachers and curriculum developers. Evaluation forms were provided and useful feedback received.

In March 1997, after a gap of four years from the time the project started, an international meeting was organised at the Southeast Asian Regional Centre for Education in Science and Mathematics (SEAMEO RECSAM), in Penang Malaysia, jointly sponsored by the UNESCO Principal Regional Office for Asia and the Pacific, Bangkok and the Commonwealth Secretariat, London. As a result of this highly successful workshop, the materials have been thoroughly revised and extended.

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