Lesson Study in Philippines
Science Teacher Training Center (ISMED-STTC) Project in the Philippines:
How Can the Quality of Education in Developing Countries Be Improved?

Project Overview
The Science Teacher Training Center (STTC) Project was developed by the Japan International Cooperation Agency (JICA) in a 5-year plan launched in 1994. With the construction of the center to be funded by the Official Development Assistance (ODA), the project aimed to promote technology transfer and cooperation, and to contribute to the improvement and development of science and mathematics education in the Philippines. The center developed a teaching plan/teaching manual for elementary school mathematics (ESM) and high school mathematics (HSM) teachers, and implemented training in teaching methods and materials development. Technology transfer was promoted by having dispatched specialists transfer technologies to the ISMED-STTC\(^1\) staff and conduct a national training program (NTP), as well was by sending counter part trainees to Japan for training. This cooperative education development program centered around the ISMED-STTC has been highly regarded as a model for how to provide cooperation to developing countries, and has spurred the expansion of projects currently being developed in several other countries.

\(^1\) Institute for Science and Mathematics Education Development (ISMED) –STTC was established with support of JICA, and currently, it is National Institute for Science and Mathematics Education Development in University of the Philippines (UP-NISMED).
Suggestions for Further Improving the Quality of Education

To further improve quality in the future, first there has to be a shift in the perceptions held by children and teachers, from seeing mathematics as a “facts and drill-oriented” discipline to a “process and idea-oriented” discipline. We need to highlight the usefulness of mathematics in solving everyday problems and show its relevance in contributing to the formation of thought patterns. Second, we need to ensure that students learn diverse approaches to solving problems, emphasize approaches that utilize inductive and functional thinking, establish ways of thinking about “why process skills are important,” and disseminate those ways of thinking. Third, we need to develop systematic ESM and HSM curricula that take into consideration the developmental stage of the students, systems of pure mathematics, and the interrelationship between the subjects being taught.
Department of Education

Department of Science and Technology

University of the Philippines (UP)

National Economic and Development Authority

Elementary Education / Secondary Education

Science High School / Regional Science Teacher Center

UP National Institute for Science and Mathematics Education Development (NISMED)

Enactment of a basic plan at the national level

Japan International Cooperation Agency (JICA)

Japan Overseas Cooperation Volunteers (JOCV)

Fig. 1 Basic scheme of the Philippines Project
Establishment of the Science Teacher Training Center (UP-ISMED-STTC)

Preparation and development of SMEMDP (Science and Mathematics Education Manpower Development)

Phase III (June 1999 - )

Fig. 2  History of the Philippines Project

Organization names in Figures 1 and 2 were current as of the project launch.