



Teachers' training school at Tela uses the new teachers' manual created in collaboration with Japan. They say it is especially useful for teaching practice.

Textbooks that Make Mathematics Fun

The Republic of Honduras is a Central American country on the Caribbean Sea. When you hear cheerful and lively voices of children at a local primary school, you cannot imagine that only about 30% of them can complete primary education within the official duration of six years without repeating a grade. To resolve the situation, Japan's know-how for textbook development is widely used in Honduras.

THE IMPORTANCE THAT TEACHING MATERIALS HAVE

Scene from a math class: the teacher is holding a paper cube in his hand and asks the children, "Imagine a development of this cube". The fifth graders in the class like it. They say "It's easier to imagine when we can see an actual paper cube". This is a primary school in Tegucigalpa, the capital of Honduras. The

math class at this school is full of ingenious ideas to help the children enjoy mathematics.

When the Honduran Ministry of Education conducted a survey of school children on their favorite subject in 2010, nearly 50% of them said math was their favorite. In the 2007 survey, however, it dropped to less than 30%. "In Honduras, students who perform poorly in the examination for promotion have to repeat the grade, and math and Spanish are the main obstacles for them", says Norihiro Nishikata, JICA's Senior Advisor. Nishikata had been a teacher at primary school in Japan for nearly ten years when he decided to leave the job to pursue his dream to be involved in academic assistance in developing countries. He has since worked in several different countries including Honduras.

To deal with the situation where many children are facing a risk of being held back/dropping out, the Honduran government made a decision more than ten years ago to re-create a math textbook from scratch, because the textbook previously used was mostly written in text and seemed to turn children off learning. Besides the textbook, the Government was also aiming to revise the teachers' manual to improve their teaching abilities.

However, Honduras has little know-how for textbook development, and the Honduran government therefore officially requested Japan to provide technical assistance. Nishikata explains the strength of Japan's teaching material development technique, saying, "Japan is great at making teaching materials with much ingenuity to conduct more effective



Left: Workshop for the development of textbooks in Nicaragua. They came up with various ideas to develop textbooks based on their own country's system and culture. Right: People who are involved in the development of textbooks. They are from 5 different countries of Central America. Mr. Nishikata worked as a leader.

teaching."

Senior Advisor Nishikata and other experts from Japan started working on the project in collaboration with the Honduran Ministry of Education and the staff of Universidad Pedagógica Nacional (National Pedagogic University), and have provided training programs for them with a focus on their weaknesses. As they learn about Japanese textbook design such as using figures and tables besides the main text, the Honduran project members started to recognize the importance of creating an easy-to-understand textbook for children. One of the members, Mr. Luis Soto from Universidad Pedagógica Nacional called on other members to review all the problems that they had had thoroughly, following which they started come up with a number of creative ideas. For example, teaching young children how to use money and control spending is regarded as very important in Honduras as opposed to Japan. On the back of this, they suggested enriching the quality and quantity of practical calculation problems in first-grader's textbooks. Thus, a more child-oriented textbook was created.

JAPANESE KNOW-HOW PREVAILING THE WORLD

Two years after the start of the project, the new textbook and the revised teachers' manual have finally been completed. Highly praised for usability for both children and teachers, they have been approved as government-designated educational materials and distributed to primary schools nationwide. The project and its result caught the attention of other Central American countries such as El Salvador, Nicaragua, Guatemala and the Dominican Republic, which also launched similar projects to create textbooks in collaboration with the Japanese experts.

Nishikata looks back on the days, saying, "It was so hard. I continued to work in Honduras on a training program for teachers for effective use of the new materials. So I would work on it during the daytime, after which I would fly to El Salvador and check their materials in my hotel room".

"The most significant change is improvement of teacher's motivation", says Atsushi Nakahara,

policy advisor for the Honduran Ministry of Education, who also recognizes the positive impact of the newly-developed math textbook. It has produced some tangible effects as well including an increase in graduation rate at primary school level. The Ministry of Education recognizes the importance of textbook development and has created new Spanish and science textbooks on its own. Changes are definitely happening.

Furthermore, the teachers' training school has added acquisition of the content of new teachers' manual, created with the support of Japan, to requirements for graduation from the training school; thus an environment for fostering really competent teachers has been created. However, there still remain a lot of issues to be tackled. Nakahara expresses his enthusiasm for the project's sustainability. "A number of competent teachers can't get a teaching job and remain unemployed in this country. We need further improvement measures at the policy level, such as development of a plan to recruit of teachers. We will continue our efforts to support the educational system in Honduras".

Japanese know-how for development of educational materials has gained the attention of other countries beyond Central America. It seems it has much potential for providing better learning opportunities for children around the world.



Textbooks for the first-graders in Honduras. It includes how to count money and practical calculations. The characters used are gender-friendly.