



Improved Basic Education in Cambodia (IBEC) Project SUCCESS STORY

Promoting Critical Thinking in the Classroom through Improved Science Education

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SCIENCE TEACHERS FULLY ENGAGED IN A HANDS-ON SCIENCE EXPERIMENT.

The IBEC Project seeks to promote better educated youth with increased access to a quality and relevant basic education through an approach that emphasizes holistic programming, stakeholder-driven development, and improved educational relevance and management. To learn more, visit www.ibec.worlded.org

In an effort to introduce critical thinking and hands-on science approaches in the teaching of Chemistry and Physics, IBEC has been providing science labs to target schools. Five labs have been constructed so far and five more are projected for Year 2. These will be the first labs of many to enhance critical thinking in the sciences in target areas.

In order to ensure that the labs are fully utilized by teachers using the kinds of teaching methods that the project is targeting, IBEC developed and delivered a four-day workshop that links real experiments using common everyday materials with specific lessons in the textbook. The experiments were identified and developed based on a 'content analysis' of the MoEYS textbook to ensure close linkages with the national curriculum. The training team comprised an American professor from City University of New York and some star students from the Royal University of Phnom Penh (RUPP). Similar training workshops are done at the university and are extremely restrictive in terms of who can attend. IBEC was able to engage this training team to deliver this very special workshop during September 2010 to 60 science teachers in target schools. In general, these teachers were selected from Beacon Schools and some other Tier 2 schools. Because each workshop has a cap of 20 participants, the training team delivered the program once in each province. Once again, the project was very selective in terms of its selection of teacher but the results were impressive.

The teachers were riveted to each demonstration, which was first done for the large group and then replicated in small groups of teachers. This models the kind of behavior that IBEC hopes teachers will use in their own classrooms. The training team focused heavily on trialing each experiment before the workshop to ensure that they would actually work. They found that many of the experiments described in the textbook required materials that are either not available in Cambodia or did not work when actually implemented. Thus, the training provided greatly enhanced and improved the existing curriculum materials.

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