



Improving Skills in Mathematics

EDC's basic education programs in low-resource environments support students in developing the foundational skills they need to explain and analyze the world around them.

Our mathematics instruction is purposeful and practical. With a focus on problem-solving, it incorporates number sense, measurement, geometry, spatial thinking, algebraic thinking, data analysis, and interpretation. To acquire these critical skills, students need a broad, balanced, and enjoyable curricular experience, as well as the appropriate learning materials and ample time to practice.

Our mathematics interventions provide teachers with the resources to support early grade practices to develop students' foundational skills, and guide them in using classroom time productively to foster meaningful opportunities for higher order critical thinking.

Specifically, EDC programs equip teachers to:

- Infuse language, thought, and meaning into mathematics instruction
- Use open-ended, challenging tasks that motivate students to engage in meaningful problem-solving
- Enhance students' understanding, appreciation, and enjoyment of mathematics.

We believe that it is essential for students to understand that mathematics is more than just getting right answers. Real-life problems require analyzing a situation, putting ideas together, and finding solutions, so our programs present students with situations related to their own experiences. They encourage students to develop strategies for solving the problems imaginatively by using prior knowledge, asking relevant questions, making predictions, and identifying solutions. And they include practice in metacognition (thinking about one's thinking process) to help students be aware of their own development as mathematical thinkers.



INTERNATIONAL
BASIC
EDUCATION



Our approach enables teachers to scaffold learning activities that encourage students to think for themselves, make connections with prior knowledge, transfer skills across subject areas, and build problem-solving capabilities.

Mathematics is a language, and it is used to predict and hypothesize, to interpret and analyze, to describe and clarify, to reason and explain, and to solve problems. These competencies are also required for reading. Supporting young children’s oral language development and critical-thinking skills yields strong readers and writers later in life. Where possible, we link our literacy and numeracy interventions, with a strong emphasis on oral language and critical thinking across the curriculum.



Rwanda’s Literacy, Language and Learning (L3)

Literacy, Language and Learning (L3) linked EDC’s Read Right Now! and Think Math! approaches to enrich the learning experience and promote the integration of math and language for Rwandan students in grades 1–4. L3 emphasized metacognition, linking oral language, textual analysis, and problem solving across content areas. L3 teachers developed a deeper understanding of numeracy and literacy concepts and how they can be used in a range of everyday applications. L3 students showed significant improvement in both literacy and math.



Paraguay’s Tikichuela Early Math Program

The HundrEd Initiative recently identified Paraguay’s Tikichuela early math program as one of the 100 most innovative educational programs in the world. A hybrid of EDC’s Big Math for Little Kids and our interactive audio instruction methodology (IAI), Tikichuela delivered a culturally relevant program in Guaraní and Spanish that integrated mother tongue language development with the development of mathematical thinking. Tikichuela resulted in higher scores for students and closed the gap between trained and untrained teachers, and it continues to show strong results for both Guaraní- and Spanish-speaking students.



Mali’s USAID Education Recovery Support Activity (ERSA)

One third of the curriculum for the Education Recovery Support Activity (ERSA) in Mali focused on accelerated mathematics. Daily activities provided children with opportunities to find different ways to solve a problem, to think in mathematical terms, to work collaboratively, to make sense of a problem, to express how they arrived at a solution, and to find patterns and structures. These skills are linked to literacy activities and to the Living Together social-emotional development element of the curriculum.

For more information, contact:

EDC’s International Basic Education and Literacy Team

intl-basic-ed@edc.org

Education Development Center

Boston | New York | Washington D.C.

Visit edc.org

