



Overview

The Abacus Project (TAP) is an academic achievement program that aims to address the prevailing minority achievement gap that persists in communities across the country. Our mission is to help students become better problem solvers, in general, and develop an acumen for useful and strategic thinking. A residual, but equally important by-product of the project is improved math fluency and enhanced number sense for participants.

Goals and Objectives

The program goals, objectives and anticipated educational outcomes are:

- Increased achievement in math fluency
- Improved metacognition
- Increased confidence in academic ability

Program Description

The Abacus Project is a 12-week program that introduces and trains students on the use of the soroban, a Japanese abacus. Students participate in an 1-hour session each week with a certified TAP instructor. To measure impact and response to intervention, pre- and post- math assessments measuring fluency are administered before and after the program.

Evidence-Based Practice

To perform complex calculations, most people rely on physical devices such as pencil and paper, mechanical calculators, and more recently, smart phones. Another such device is an abacus, which is still widely used in Asian countries. Skilled abacus users can calculate accurate answers to mathematical problems extremely rapidly. Interestingly, however, abacus users not only manipulate the tool skillfully in its physical form but also gain the ability to mentally calculate extraordinarily large numbers, often more than 10 digits at the expert level, with unusual speed and accuracy. Psychological studies have shown that a non-linguistic strategy using visual imagery of the abacus (a “mental abacus”) underlies this unusual calculation. It is a hands-on, multisensory approach to developing math skills and right brain thinking.