ABSTRACT

The study examined the effectiveness of Vedic Mathematics-based instruction on achievement, attitude, and computational speed among eighth and third-grade students. The sample comprised 320 students, equally divided between eighth and third grades, with 80 participants each in the control and experimental groups. The intervention was implemented in three schools: two government-aided and one private.

The study utilized a Pre-test-Post-test Control Group Design. Students were randomly assigned to both the experimental and control group. The experimental group was taught using Vedic Mathematics-based instruction, while the control group received conventional method of instruction: the Active Learning Method (ALM) for eighth grade and Activity-Based Learning (ABL) for third grade. Both groups underwent a pre-test before the intervention and a post-test after the intervention.

For the eighth grade, the intervention lasted for 37 days, with three days allocated for pre-tests before the intervention, followed by post-tests conducted over three days immediately after the intervention. A delayed post-test was administered two weeks later. For the third grade, the intervention period was 20 days as the content was less, dealing with basic arithmetic operations. Pre-tests and post-tests were conducted over three days each. A delayed post-test was also conducted two weeks after the intervention.

The findings of the study revealed that Vedic Mathematics significantly improved the achievement in mathematics of third-grade students and also enhanced a positive attitude toward learning mathematics which was not observed in the eighth-grade students. The results demonstrate that Vedic Mathematics enhances students' achievement in mathematics, emphasizing the importance of introducing innovative teaching methods at lower grade levels to promote better learning outcomes. Incorporating Vedic Mathematics alongside traditional instructional methods from an early stage can help students build greater confidence, improve computational speed and accuracy, and foster a deeper engagement with mathematics. This approach can transform mathematics into a more enjoyable and stimulating subject for learners.

Keywords: Vedic mathematics, Achievement in mathematics, Attitude towards learning mathematics, Learning style, Computational speed, Primary and Upper Primary Students.