Students’ Achievement In Mathematics At The End of Elementary Education In Rural Areas Of South 24 Parganas

Thesis submitted for the Degree of Doctor of Philosophy in Education

Submitted by
MINARA YEASMIN

DEPARTMENT OF EDUCATION
UNIVERSITY OF CALCUTTA
2017
Title of the Study: Students’ Achievement in Mathematics at the end of Elementary Education in Rural Areas of South 24 Parganas

Abstract:

Achievement in mathematics plays a crucial role in all round development of a child and is often associated with future economic power and potentiality of a country. Since, RTE, 2009 guaranteed quality elementary education for all children of age group 6-14 years, so to examine status of the elementary education, it is obligatory to determine the level of achievement in mathematics. For this reason, the study aims to construct a standardised achievement in mathematics, to assess the level of students’ achievement in mathematics after completing elementary education. It also stressed on weakness in mathematics, causes behind the underachievement and suggested some remedial measures for it. By using stratified random sampling techniques, data were collected from 400 (240 students from Matured Delta Area and 160 students from Active Delta Area; 210 boys and 190 girls) students of class IX at the beginning of their session of 19 government aided / government sponsored schools of the rural areas of South 24 Parganas through a self made standardized achievement test in mathematics. Both quantitative (mean standard deviation, t-test, and graphical representation) and qualitative analysis was done. The reliability of the test was established by split half method (0.91), face and content validity were taken into account, and also, concurrent validity (0.9) was confirmed. It was observed that overall mean value of the scores of the achievement test in mathematics was 23.94 out of 50. Boys had done little better result in achievement test than that of the girls; students of active delta area had done very much better than the students of matured delta area due to active engagement in daily life activity and major dependency on schools. Students were more comfortable in statistical representation and construction section and students had faced the problem in arithmetic and geometrical items. Also it was found that students had encountered difficulties in application based items. Promotion of Information and Communication Technology Systems, new knowledge, pedagogies and approaches for teaching of mathematics to improve learning outcomes of students should be highlighted. Individual care to every weak student and academic support to them should be provided by the school authority. In sum, additional collaborative efforts – institutional, financial and analytical – are needed in order to supplement the lessons learned from this study and add a new dynamic to on-going national efforts to improve the quality of learning for all elementary school-age children in mathematics.