

Action research intervention for teaching of primary mathematics in multigrade settings

M V Vithanapathirana*

Institute of Education, University of London, United Kingdom

Present address:

Faculty of Education, University of Colombo, Sri Lanka

Multigrade teaching is defined as teaching to more than one grade simultaneously by a single teacher. This study is an action research on multigrade teaching conducted by a teacher educator with a group of multigrade teachers

The study included three major steps. First, the development of an innovative strategy for multigrade teaching of mathematics. The lesson planning strategy was developed to instruct two more grades on a common topic. It included a common introduction suited for all the grades followed by gradual development of the lesson to suit the different grade levels. The second step was a small-scale intervention made in collaboration with a group of 17 multigrade teachers in 10 schools in an education division to implement the innovative strategy on an experimental basis. The intervention was made in two spiraling cycles, comprising of four stages: planning, action, monitoring with facilitation and reflection. Third step was the impact assessment of the intervention. Impact on student achievement was assessed through a 'quasi-experiment' by comparing student achievement between 'intervention' and 'control' schools. The impact on the teachers was assessed through the teacher expressions of the satisfaction of the intervention.

Teachers were highly satisfied on the understanding and skill in multigrade practice acquired through participation in the intervention. The results of the linear regression analysis of the mathematics mean gain in achievement score indicated that on an average the students of Grades 4 and 5 of the intervention schools made significantly better progress in mathematics after instruction through the innovative strategy, than the students in control schools.

The study provided evidence on the feasibility and suitability of systematic adoption of multigrade teaching in the teaching of primary mathematics.

Financial assistance by International Research Project on Multigrade Teaching, IOE, University of London is acknowledged.

* mvibhasini@hotmail.com