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Learning science at primary level through collaborative activities

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Science has become an integral part of day-to-day life. Hence, a proper foundation for learning science needs to be laid at primary level. In Sri Lanka, primary level of the school system consists of three key stages and five grades from one to five. Science is taught under the subject--Environment Related Activities (ERA) at primary level. This study focuses on the children's involvement in doing science related activities in ERA. Two schools in the Kandy district were selected for the study from an urban and a rural area considering the convenience to be in the classrooms for a period of six months. In each school five classrooms were selected from each grade one to five.

ERA lessons for the five classrooms were planned with small group activities to develop five basic competencies, namely competencies related to communication, environment, ethics and religion, play and leisure and, learning to learn. To complete the given activity all students in a group had to play a role. It was observed that the students were very cooperative by sharing experiences, presenting ideas to solve the problem in the given activity, giving conjectures and helping each other in holding objects, pasting pictures, writing the report and presenting it to the whole group. In making lanterns under the theme, "Play with light," it was very impressive how students worked together in building up the structure, making designs, selecting colours, and pasting papers to structures. They were very curious to observe changes and were impatient to obtain results by making many comments. Detailed fieldnotes of classroom observations and transcripts of interviews were made. Reports and crafts made by children were also collected. Interviews with teachers, children and their parents revealed how children were motivated to learn science. By triangulating data gathered from various sources it was found that children enjoyed learning science in their group activities and appreciated the collaboration of the group members. Teachers were also of the view that children learn better when they work in groups, but it is difficult to set up the activities to involve all children. It is recommended that teachers need further guidance in designing and presenting challenging activities to promote scientific thinking.