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**Is there equitable distribution of Science Education for eighth graders in Sri Lanka?**

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With the introduction of education reforms in 1997, there were many changes in the science curriculum, assessment practices and in teaching science, to produce a classroom culture that enhances student learning through inquiry allowing the engagement in many activities, discussion and the application of their day-to-day life experiences in solving problems. This study investigated the equitable distribution in science achievement of the eighth graders in the country. Two educational districts from each province were selected from the nine provinces in the country representing all ethnic, religious and socio economic groups. Five schools from each district were selected to include urban, semi-urban, rural schools, unisex and mixed schools and the three types of schools: 1AB, 1C and 2, totaling ninety schools. Two classrooms from each grade (7, 8, 9 & 11) were chosen in each school after having a discussion with the school principal and sectional heads. Thirty in-service advisers were chosen and trained to develop the testing instruments, to collect and evaluate data by conducting residential workshops. Testing instruments were developed giving special emphasis for application and inquiry type of questions on difficult science concepts in the eighth grade curriculum. These were piloted, revised and then administered in ninety schools. In each school five students were interviewed and comments were collected from the teachers and evaluators. Analysis revealed that there were statistically significant differences in science achievement among the provinces. Two provinces showed highly significant differences to the other seven provinces. These two have quite different geographical locations. Four provinces did not show significant differences from each other. Analysis of student interviews showed that they had difficulties in answering application, inquiry questions as they have not had experience in answering these types of questions. In-service advisers also expressed the need for rethinking ways of conducting sessions for teachers to help them in developing questions for gauging students understanding to provide remedial actions for students. This study shows the urgent need for adapting teachers to student-centered and inquiry teaching and formative assessment practices to help in student understanding by engaging them in activities to understand the concepts behind "meaningful understanding."