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Challenges in ESD implementation through junior secondary Science in Sri Lanka

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Education for Sustainable Development (ESD) is an approach to teaching and learning based on the ideals and principles that underlie sustainability. This study attempts to reveal the constraints and strategies for addressing these challenges in the ESD implementation process through the subject of Science at junior secondary level. Principals and 136 Science teachers from 58 secondary schools in the Northern Province of Sri Lanka participated as the survey sample.

The results illustrate that most of the schools are not only struggling with student related issues but that the schools have to also tackle other issues including issues related to Science curriculum and resources. Problems faced by students, such as low basic literacy, poor attendance at school, low interest in studying at school and at home, disciplinary problems and inadequate awareness about the importance of Science among the students and parents were noted. Science teachers identified the problems related to curriculum such as the examination-oriented nature of the curriculum, the load of content, inappropriate pedagogy, subjective and in-depth contents, inadequate time for some competencies and the reality of the competency levels, some concepts being difficult to understand and results of prescribed 'activities' not being mentioned in the Science text books. There are also several problems related to schools such as inadequacy of resources in the Science laboratory, shortage of well-trained teachers also identified. Science teachers and school principals proposed several suggestions in the survey for improving junior secondary science curriculum, pedagogy, resources and school community.

Keywords: Education for Sustainable Development, Challenges, Science, Junior Secondary Level, Sri Lanka