

**CHALLENGES OF SCIENCE EDUCATION OF INDIGENOUS STUDENTS:
A CASE STUDY FROM UVA PROVINCE, SRI LANKA**

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Progress of science, especially in the developing countries, has been retarded by barriers to science education. Further, educators all over the world grapple with how to engage indigenous students in science. Therefore, science education researchers try to identify the challenges of science education of both indigenous and non-indigenous students. In Sri Lanka, there is a gap on challenges of learning science between indigenous and non-indigenous students at secondary school level. This study presents challenges of science teaching and learning identified qualitatively in three secondary schools with indigenous students in Uva Province, conducted between 2018 and 2020. Qualitative data were collected by semi-structured interviews with 14 indigenous parents, 15 non-indigenous parents, 10 indigenous students, 12 non-indigenous students, 7 teachers (6 science and 1 mathematics) and 5 indigenous leaders/senior community members and 27 classroom observations (average 23 minutes). Qualitative data were analyzed thematically, and data triangulation was used to ensure the validity of findings. It was identified that poor physical resources and poor human resources at schools challenged science learning of indigenous students and non-indigenous students. There was a paucity of basic physical resources, such as water, electricity, necessary scientific equipment and chemicals, for science learning. In terms of human resources, there was no science teacher at one school for nearly one and a half years, and there were not enough science teachers to cover the classes from Grade 6 to 11 in another school. It was shown that majority of the indigenous parents were relatively less capable of teaching science to their children at home compared to non-indigenous parents. Further, the teachers expressed that, financial constraints negatively affected the indigenous parents more compared to the non-indigenous parents in providing necessary physical resources and additional science learning opportunities to their children. Relatively poor education level of indigenous parents could be the reason for their less capability to teach science at home. These findings confirmed some of the international literature on challenges of learning science such as inadequacy of physical and human resources to teach science, and relatively poor financial and educational levels of indigenous parents. Further, the above study showed that majority of the indigenous and non-indigenous students shared similar challenges for science learning.

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