

Title: Children's Knowledge and Attitudes towards Environmental Sustainability (2023)

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References:

1. Tan, Abigail & Ming Han, Lim. *Children's Knowledge and Attitudes towards Environmental Sustainability: A Proposed Tracking Study*.
2. Koh, Fabian & Choo, Chloe (2022, 03 Nov), *Pre-schools in Singapore sowing seeds of sustainability in their pupils*, Channel News Asia.
<https://www.channelnewsasia.com/singapore/pre-schools-sustainability-singapore-green-plan-recycling-zero-waste-education-3040461>
3. Ministry of Education (2023), Singapore, *Educator's Guide for Discovery of the World*, Nurturing Early Learners.

Summary

In 2022, Channel News Asia published an article "Pre-schools in Singapore sowing seeds of sustainability in their pupils" and it touched on the importance of inculcating sustainability habits in young children. This is part of the Singapore Green Plan 2030 of which Singapore aims to be a zero-waste nation. Kindergartens in Singapore expose children to sustainability habits through activities such as composting, basic gardening and recycling. It was mentioned in the article that the concept of a circular economy and sustainability are abstract concepts that children may not necessarily grasp, it is hoped that with these activities, children find meaning in understanding man's impact on the environment. Furthermore, these efforts support the Nurturing Early Learners Framework (2023) under one of the learning goals under Discovery of the World - 'Develop a sense of responsibility, care and respect for the world around them'. Children will then "develop an awareness of how human behaviours and their actions might affect their immediate environment and the world they live in".

To kickstart NFC's plan on inculcating sustainability education and awareness to the children and their families, a pilot study was implemented in 2023 to test children's awareness of and attitudes towards environmental sustainability. It will contribute to the development of a baseline measure to check in on children's knowledge of sustainability upon graduation from MFS and LSH. It will also inform the development of the curriculum to include environmental sustainability education. This would then lay the foundation to fulfil NFC's goal of nurturing future generations of sustainability advocates and as the first preschool organisation to do so.

3 main areas of the study were identified:

- 1) Children's awareness and attitude towards ecological footprint (3Rs - reuse, reduce and recycle);

- 2) Children's awareness of environmental issues regarding marine, rainforest and water conservation; and
- 3) Children's attitude towards nature versus the man-made environment.

The team looked into various studies regarding environmental sustainability education and the tools that were used to measure children's attitudes towards sustainability - particularly the Development of Ecological Footprint Awareness Scale for Children (EKAY-O) which was developed by Turkish researchers Hande Gungör and Nilgün Cevher Kalburan. They then created the instrument: Children's Knowledge and Attitudes towards Environmental Sustainability (CESS) for the pilot study and administered them to 19 children (Kindergarten 1 & 2). The children involved answered 16 questions and were scored based on a 3-point scale.

The findings indicate that the average score for a Kindergarten 1 child is 23.3 and for a Kindergarten 2 child is 30.1 over a total score of 40. In conclusion, children are able to understand and answer all CESS questions which provides a foundation for the 2024 main study which would survey at least 200 children on their knowledge on sustainability.

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