Title: Baseline Sustainability Awareness Among Kindergarten Children in 2025: Domain-Specific Insights
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Summary

The 2025 sustainability awareness study provides a comprehensive baseline profile of how K1 and K2 children reason about environmental issues across six conceptual domains. Across the full sample, children demonstrated strong foundational awareness from a young age, and K2 children consistently showed more sophisticated eco-centric reasoning. In waste reduction, K1 children tended to describe concrete behaviours like avoiding spills or sorting items based on bin labels, while K2 children explained why items should be reused to protect the Earth. Many children, particularly K2s, expressed enthusiasm for creative reuse projects, describing recycling as fun and meaningful. Water-use reasoning reflected a similar developmental shift: K1 children described concrete outcomes such as splashing or flooding, whereas K2 children articulated responsibility and conservation-based explanations.

Method

The study involved the administration of a validated sustainability awareness assessment tool that captures children's reasoning in areas of waste reduction, water use, energy use, food waste, marine protection, and rainforest conservation, as well as their everyday eco-centric behaviours. Children participated individually in a structured interview protocol adapted from the 2024 validated procedure. Their responses to scenario-based items were coded as eco-centric or non-eco-centric, with eco-centric reasoning defined as explanations that reference environmental protection, resource conservation, ecosystems, or collective responsibility. Non-ecocentric responses included concrete, immediate, or self-focused rationales such as avoidance of spills, fear of mess, or personal inconvenience. All coding was performed using the same codebook and analytic criteria applied in 2024, ensuring consistency across years. The 2025 sample consisted of children across multiple centres and reflected a typical spread of demographic characteristics representative of the Kindergarten 1 and 2 age groups.

Results

In energy use, both levels recognised that unused appliances should be turned off, but K2 children were better able to link these behaviours to saving electricity or conserving battery power. Non-eco-centric explanations, such as devices needing to "rest," appeared more frequently among K1 children. Food-waste reasoning elicited strong moral thinking across both levels, with children expressing empathy and fairness.

K2 children, however, demonstrated more abstract ecological reasoning, linking food waste to environmental harm, while K1 children focused more on personal consequences such as avoiding hunger.

Marine protection was a domain where both levels showed high awareness, yet the depth of reasoning differed. K1 responses focused on visible consequences, whereas K2 children provided clearer causal reasoning about plastic pollution and the dangers of marine ingestion. Rainforest protection yielded similar developmental differences: while both levels opposed cutting down trees, K2 children were more likely to explain their reasoning using ecological concepts such as oxygen, habitats, and ecosystems, whereas K1 responses centred on animals being sad or losing their homes. Everyday water-tap behaviour also reflected this developmental pattern: both levels understood not to leave the tap running, but K2 children demonstrated a stronger understanding of the environmental impact.

Taken together, the 2025 baseline findings reaffirm that children enter K1 with foundational sustainability understanding and develop deeper eco-centric reasoning by K2. These patterns highlight the importance of sustained exposure to sustainability concepts and the role of integrated, meaningful learning opportunities in supporting young children's environmental thinking.

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