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## Exploring the use of school-based infrastructure in healthy and sustainable food education

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Food-related infrastructure in primary schools can be used to deliver healthy and sustainable food education from a young age<sup>(1)</sup>, though little is known about the presence and use of such infrastructure in primary schools. The aim of this study is to explore the use of physical infrastructure in healthy and sustainable food education in Australian primary schools. A quantitative cross-sectional online survey of primary school teachers undertaken between August 2022-July 2023 collected data about the presence and teaching-related use of food gardens, cooking facilities and food waste management systems in primary schools. Descriptive statistics were generated using Stata 17.0 statistical software. Participants were 239 teachers recruited via social media advertising and education/nutrition networks. The majority of teachers agreed that primary schools should have a food garden (n = 194, 81%), cooking facilities (n = 196, 82%) and a food waste system (n = 205, 86%) that can be used for teaching. Whilst three quarters of participants stated their school had a food garden (n = 181, 76%), just over half reported their school had cooking facilities (n = 130, 54%) or a food waste system (n = 131, 55%) that could be used for teaching purposes. More than 60% of participants reported they used such infrastructure within their teaching when it was available. Food waste systems were most commonly reported to be used more than once a week (n = 30, 33%) to teach students about food waste (n = 69, 77%), food sustainability (n = 65, 72%) and the environment (n = 63, 60%). Food gardens were most commonly reported to be used once a week (n = 33, 30%) to teach students about gardening skills (n = 97, 87%), the environment (n = 77, 69%), healthy eating (n = 67, 60%) and food sustainability (n = 67, 60%). Cooking facilities were most commonly reported to be used once or twice a term (n = 21, 23%) to teach students about food preparation and cooking (n = 71, 84%) and healthy eating (n = 62, 73%) and for tasting food (n = 55, 64%). From these findings we conclude that primary school teachers consider food gardens, cooking facilities and food waste systems to be important for delivering healthy and sustainable food education. Whilst food gardens appear to be common in Australian primary schools, there is variability in their use as an educational resource. Further variability exists regarding the presence and use of cooking facilities and food waste systems in primary school settings. There is future scope to (1) extend the presence of food-related infrastructure in primary schools; and (2) develop resources and training opportunities for teachers to support their use of such infrastructure in delivering healthy and sustainable food education for primary school students.

Keywords: food education; food sustainability; primary school; critical food literacy

## **Ethics Declaration**

Yes

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## Reference

1. Dudley DA, Cotton WG & Peralta LR (2015) Int J Behav Nutr Phys Act 12, 28.