



Queen Mary Elementary Compost System



Context & Issue



Plastic debris found in school garden soil

Want to eliminate plastic debris by generating high quality soil through food composting

Participants: 23 Gr. 5 students in Queen Mary Elementary School

Significance



Involving in composting programs:

- Enhance student knowledge, composting attitude, and responsible environmental behaviors [1]
- Increase environmentally responsible behaviors help create sustainable food systems [2]

Goals



We aim to:

1. Improve students' understanding and attitude towards composting, and relate composting to sustainable food systems
2. Set up a bokashi composting system for long term production of high quality soil

What is Bokashi?

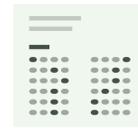
Compost system that relies on anaerobic microbes to decompose food waste [3]

Quicker & easier than conventional and worm composting [3]

What we did ?



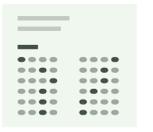
Research composting options



Pre-test on knowledge and attitude



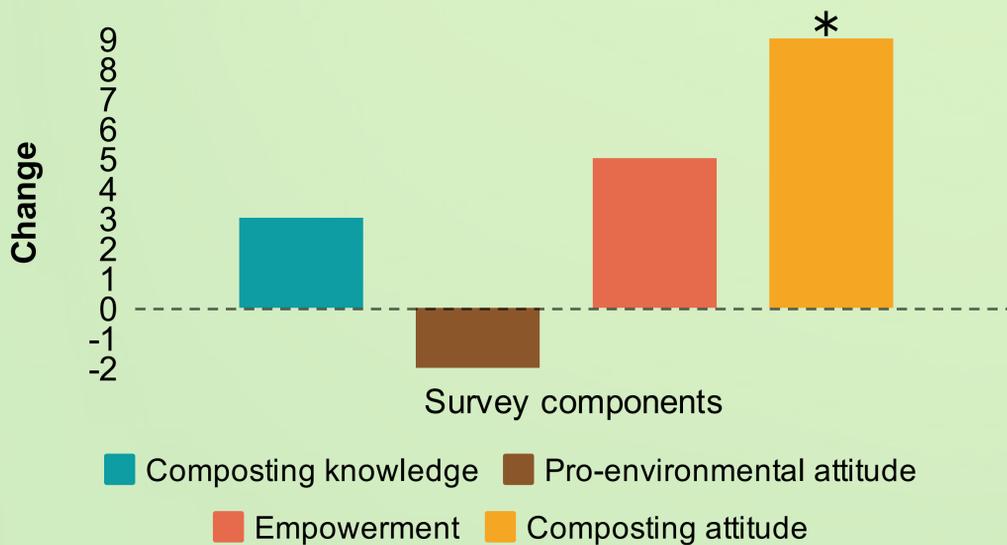
Hands-on bokashi workshop



Post-test on knowledge and attitude

RESULTS

Change in Test Score



* significant difference, T-test P value < 0.05

65%



of students understand the sustainable food system concept after the workshop

"Knowledge was taught at an age appropriate level, students are more engaged than usual!"



Conclusion

Workshop increased students' composting attitude, understanding of sustainable food systems and potentially student empowerment

Empowered students will be more involved in future composting program

Next steps

Support students involvement in sharing bokashi composting knowledge in the school

Help school to generate their own soil using bokashi compost

Sources

[1] Waliczek, T., McFarland, A., & Holmes, M. (2016). The relationship between a campus composting program and environmental attitudes, environmental locus of control, compost knowledge, and compost attitudes of college students. *Horttechnology*, 26(5), 592-598.
 [2] Rojas, A., Valley, W., Mansfield, B., Orrego, E., Chapman, G., & Harlap, Y. (2011). Toward food system sustainability through school food system change: Think&EatGreen@School and the making of a community-university research alliance. *Sustainability*, 3(5), 763-788.
 [3] Merfield, C. N. (2013). Treating food preparation 'waste' by Bokashi fermentation vs. composting for crop land application: A feasibility and scoping review. Lincoln, New Zealand: The BHU Future Farming Centre: 23