



# 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?

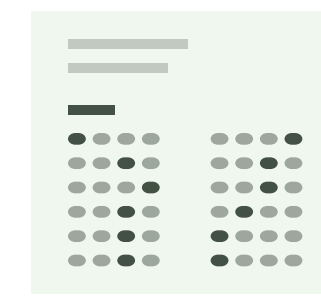
Compost system that relies on anaerobic microbes to decompose food waste [3]

Quicker & easier than conventional and worm composting [3]

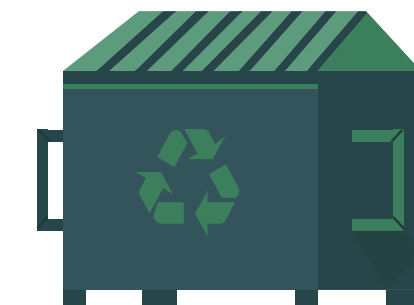
## What we did ?



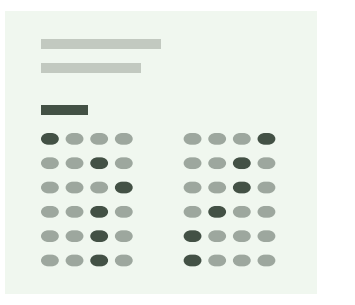
Research composting options



Pre-test on knowledge and attitude



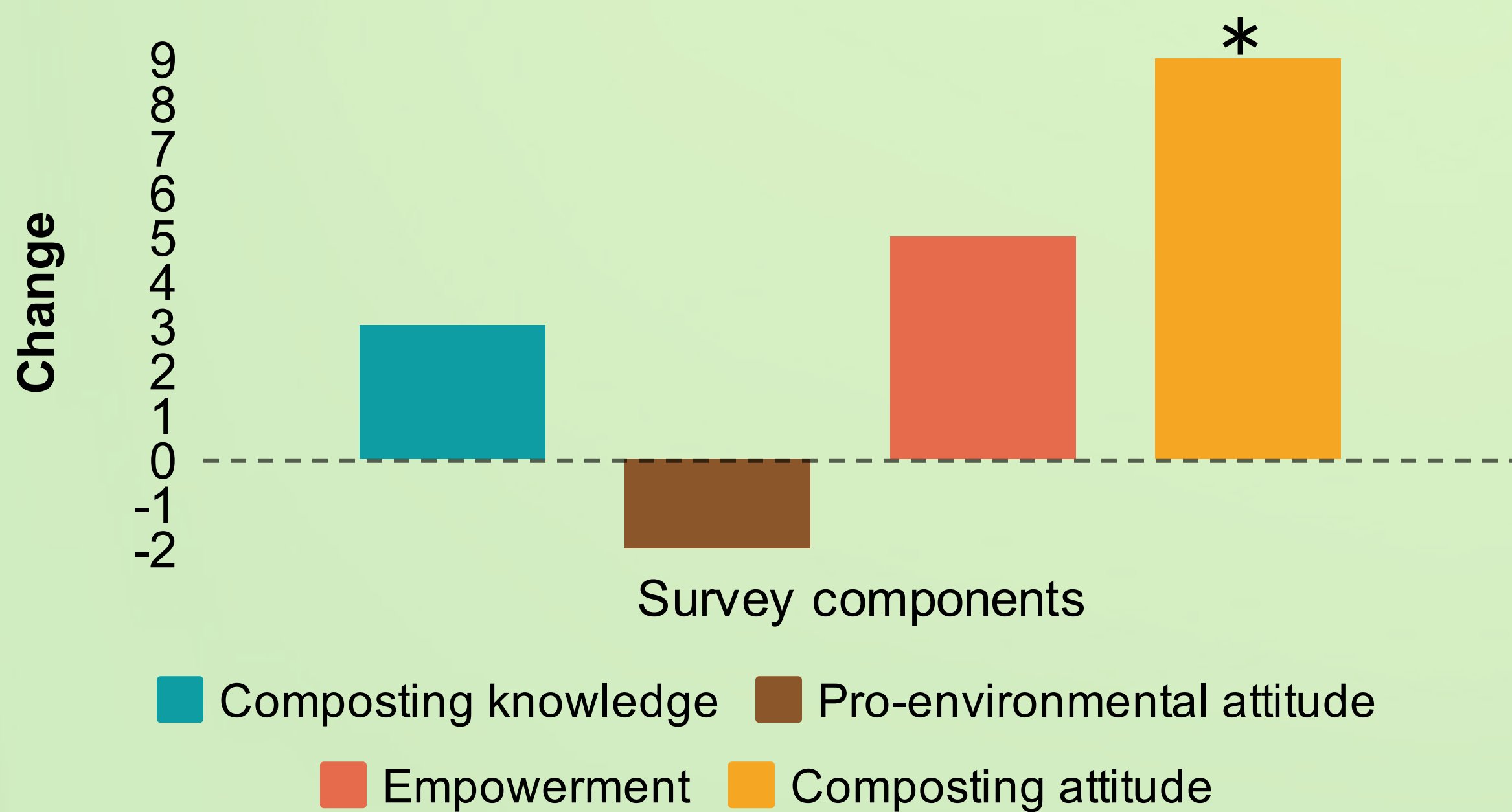
Hands-on bokashi workshop



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