

Nutrition to Grow On

(Research-tested)

Summary of Evaluation Methods

Nutrition to Grow On was evaluated in 3 Northern California elementary schools using a quasi-experimental design. The intervention materials included nine nutrition lessons, a gardening component for each lesson and corresponding family newsletters. The three study groups (one school participated in each group) were the control group (CO), the in-class nutrition lessons only group (NL) and the in-class nutrition lessons with hands-on gardening activities group (NG). The evaluation tools included a nutrition knowledge questionnaire and vegetable preference survey. The nutrition knowledge questionnaire consisted of 30 multiple choice questions focusing on the objectives for each lesson and was read out loud by the instructor. The vegetable preference survey was completed by the student without assistance. Students tasted and rated their preference for six different vegetables (carrots, broccoli, spinach, snow peas, zucchini and jicama) on a 5 point scale ranging from 5 “Really liked it a lot” to 1 “Really did not like it”.

Evaluation Audience

Three fourth grade classrooms with students aged 9 to 10 years old were evaluated. Students were primarily White (66.5%) and only 25% qualified for free or reduced priced meals. Parental consent was obtained for 213 students before participating in the study.

Curriculum Audience

Nutrition to Grow On is a nutrition curriculum with a gardening component intended for students in grades 4 to 6 (upper elementary). Parent materials are also available in English and Spanish.

Summary of Evaluation Results

For the nutrition knowledge survey scores, both the NL and NG groups scores were significantly greater than the CO group and improvements were maintained at the 6-month follow-up ($p < .0005$). The vegetable preference survey scores for the NL group and the NG group were significantly greater for carrots and broccoli compared to the CO group. Additionally, for the NG group, the scores were significantly greater for snow peas and zucchini and retained significance for broccoli, snow peas and zucchini in the 6-month post-intervention follow-up. These findings indicate that nutrition lessons delivered with hands-on garden based activities support improvements in children’s preferences for vegetable that exceed the gains seen with classroom-based education alone.

References

Morris, J, Zidenberg-Cherr, S. Garden-enhanced nutrition curriculum improves fourth-grade school children's knowledge of nutrition and preference for some vegetables. *Journal of the American Dietetic Association* 2002; 102, 91-93.

Morris, J, Koumjian, K, Briggs, M, Zidenberg-Cherr, S. Nutrition to Grow On: A Garden-Enhanced Nutrition Education Curriculum for Upper-Elementary Schoolchildren. *JNEB* 2002; 34(3), 175-176.