Abstract

Objective: The School Garden Integration Framework (SGIF) was developed to reposition how gardens become well-integrated into New York City elementary and middle schools. This study analyzed how schools operationalized the framework’s 19 components to provide guidance on how other schools can also utilize the SGIF effectively.

Study Design, Setting, Participants, Intervention: Participants at 21 schools with well-integrated school gardens in Manhattan, Brooklyn, and the Bronx completed a survey, observations, and semi-structured interviews during the 2013-2014 school year. Additionally, the researcher took photographs at each garden and collected additional documents (when available).

Outcomes, Measures and Analysis: Analysis of the survey was conducted with descriptive statistics; while analysis of the interviews, photos, observations and additional documents used qualitative techniques, including pattern matching, explanation building, and cross-case synthesis.

Results: Many strategies emerged for each of the SGIF domains, including “resources and support” – delegating tasks within a garden committee; “physical garden” – facilitating garden activities that serve as an introduction for new volunteers; “teacher experiences” – utilizing individual lessons rather than a curriculum; and “school community” – engaging volunteers by reducing barriers like time. Some guiding principles that emerged as particularly important for new school gardens included: as such, starting small, being persistent, and creating a network of support.

Conclusions and Implications: Each of the strategies that emerged from this study can help direct and guide school gardeners to better implement the SGIF. The strategies and core principles identified can be used by school gardeners to strengthen existing and establish new school gardening programs, or by policymakers to implement policies that better support and reduce barriers to school gardening.

Methods

Participants. A stratified, purposeful sample of 21 schools with well-integrated gardening programs was selected in order to capture rich information about how gardens become institutionalized. The researcher worked with Geoe to Laura NYC (a school gardening initiative) to identify 14 schools with successful gardens. Schools were excluded if the survey and/or interview data revealed that they did not meet the criteria for “well-integrated.”

Measures. A survey was developed to collect basic information about a school’s garden. The data were then incorporated into a semi-structured interview in order to gather more detailed information. An observation of students to assess engagement during garden-related activities was conducted in order to explore the depth and meaning of their experience. Additional data were also collected in order to capture the uniqueness and nuances of individual garden program features or implementations. At minimum, these data included digital images of the main features of each garden, manuals, garden curricula, outlines, and reports were also analyzed when available.

Results

Resources and Support Domain

Domain Components | Main Strategies
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Budget and funding | Use a variety of funding streams (including PTA, garden environmental grants, academic grants)
| Manage funding through the organizational structure in place
| Have a plan for funds now and in the future

Networks and partner organizations | Create a large network
| Develop partnerships that address all types of garden integration (e.g. with the curriculum, maintenance, for PD)
| Give the garden a place in academics by allowing teachers time to engage students in planning, maintenance, and coordination

Administrative support | Promote the garden among non-users through professional development and by providing educators with opportunities to explore curricular connections
| To gain more support from administrators, demonstrate increased student engagement in core academic subjects

Organizational Structure | Meet regularly
| Develop as many tools and resources as possible (e.g. garden manuals, calendars, guidelines, codes of practice)
| Divide responsibilities based on time and individuals’ strengths

Crop vitality and diversity

Domain Components | Main Strategies
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Volunteer and parent involvement | Make the garden accessible by including parents and volunteers based on their interests and strengths
| Create a small window of time or easily accomplished tasks to decrease time as a barrier
| Utilize the PTA (parent-teacher association) to get parents involved
| Network with volunteer organizations that aren’t necessarily garden-based (like youth volunteer programs)

Engagement | Getting students engaged in the garden results from a combination of spending time and doing activities in the garden
| Provide opportunities for students from agricultural communities to participate in the garden

Tasting | Testing from the garden may mean supplementing the yield with local and regional farmers
| Reduce spoilage by beginning with tasting opportunities for students of fruits, vegetables, or herbs they already know
| Incorporating cultural foods may provide opportunities for some students to share knowledge with others
| Connect the garden to the lunchroom whenever possible, by providing salad bar, developing a relationship with an organization aimed to improve school lunch, or becoming more involved with regional food and farm to school programs

Additional learning | Approach gardening failures as learning opportunities
| Take the opportunity to teach by example in the garden

Contact Information

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