The Australian Prevention Partnership Centre

CITIZEN SCIENCE IN PREVENTION

CITIZEN SCIENCE CASE STUDY
AUGUST 2022

Reflections on using citizen science to evaluate the accessibility of the community gardens project

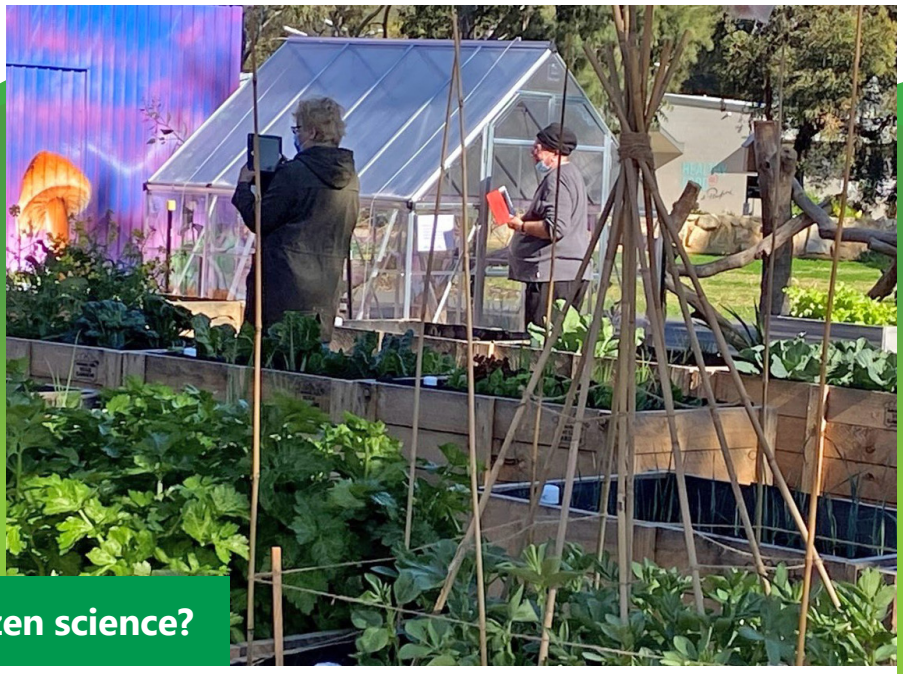
Overview

- This project used a citizen science approach to understand the perceptions of community garden users to inform the design of future community gardens.
- Citizen scientists collected audio and audio-visual data about the physical accessibility and inclusion of diverse groups using a tablet device.
- The findings from this research have been discussed with garden users, informed community garden design improvements and will be used by councils and Wellbeing SA in the design and investment of future community garden projects.
- Establishing a clear research question that is suitable for citizen scientist engagement without compromising existing community relationships and trust was key to project success.
- Using a collaborative partnership approach to draw on available skills, expertise and resources in evaluation and community engagement for project design and implementation is recommended.

HOW DID WE USE CITIZEN SCIENCE?

WHAT DID WE LEARN

WHAT'S NEXT



How did we use citizen science?

The aim of this project was to use a citizen science approach to examine the perceptions of users of two community gardens in northern Adelaide to understand what design factors promote the use of the gardens in terms of physical accessibility and inclusion of diverse groups. This project was a partnership between Wellbeing SA and two Adelaide councils (City of Playford and City of Salisbury).

Visitors to each of the gardens across two or three nominated data collection days were invited to participate in the study as citizen scientists. A flyer was made available to inform community members of the opportunity to participate in this research project. A researcher from Wellbeing SA was in attendance to support recruitment and obtain informed consent. Citizen scientists used a tablet device to capture audio and audio-visual recordings as they walked around the gardens. Guiding questions were available at different areas of the garden to prompt the citizen scientists to consider aspects such as physical accessibility and inclusion.

At the conclusion of three of the five data collection sessions, citizen scientists were encouraged to participate in an informal discussion about what they found, however, this was not feasible at all sessions. Collected data were analysed and then compared to previously collected qualitative data from councils about key considerations in the design of community gardens to ensure accessibility and social inclusion (for example, garden design, budget, available land, linking with adjoining facilities, sun and shade considerations).

Figure 1. Citizen scientist involvement in data collection for the project

What did we learn?

Key advantages of using a citizen science approach included the ability to:

- Enhance existing relationships with community members
- Empower and inform community members
- Collect data and gain insights that would otherwise be difficult to capture.

"They told me things I wasn't expecting to hear, I was surprised by the things they valued so I think it gave insights and certainly it was that whole hard to reach data, you wouldn't get it unless you went directly to the people who were the users of the garden."

The project team reflected on the experience of using a citizen science approach, with the following insights emerging:

Citizen science approaches require time, resources and expertise: Skill sets required included relationship management, ethics application development, qualitative data analysis, and community engagement. Due to the skills and time required to engage garden users, citizen science was not felt to be a low-cost option for gathering data.

Working in partnership: The partnership between councils and Wellbeing SA allowed for a collaborative approach to project design and implementation to draw on available resources and expertise. This included evaluation expertise from Wellbeing SA and council understanding of and relationships with community members. This ultimately resulted in the design of a locally relevant and appropriate citizen science project.

Consider the ethics of involving citizen scientists: There may be concerns around the safety and wellbeing of community members engaging in some projects, especially if citizen scientists are collecting sensitive data from other community members. Citizen science may therefore be more appropriate for topics which are not sensitive. Research questions were adapted during the design phase of this project to ensure trust and respect would be maintained with citizen scientists, as this is essential to engagement.

Be guided by a clear purpose when identifying a cohort of citizen scientists: For this project it was established early on that it would be key to engage garden users, rather than use this project as an opportunity to attract new garden users. One benefit to this approach was the ability to use a casual opt-in approach to recruitment at the garden sites.

Understand citizen scientist engagement and support needs: This project engaged citizen scientists with intellectual disabilities, low literacy and mental health or cognitive disorders. Carers were present to assist with recruitment and participation, with many requiring a ratio of one-to-one assistance to understand the task and use a tablet device.

Consider citizen scientist engagement across project phases: In line with council processes, community members were engaged in the design of the gardens, but not the design of this citizen science project to evaluate the gardens. The team reflected that this would be worth considering for future projects, in addition to considering other ways to involve citizen scientists in data analysis, as this project found that many citizen scientists were too busy or not interested in participating in a follow up discussion after data collection.

"To build a new community garden again knowing that kind of information at the start is so valuable because when I was planning this one, I was going in blind, trying to use the best knowledge that I've got built up over time."

What's next for this project?

The evaluation findings and recommendations have been shared with the two councils to inform their strategies to increase the number and range of participants at the community gardens. The findings will also be used by Wellbeing SA to inform decision-making about the design of community gardens in any future investments.

Community members have also been involved in discussions about the findings, which has resulted in changes being implemented to the gardens in partnership with council. Examples from the City of Playford include the construction of garden bed shading, more promotion of the gardens, and the introduction of programs for children and Aboriginal peoples. This has been the first pilot application of a citizen science approach in prevention by Wellbeing SA, which will inform decisions about the suitability of this approach for future projects.

Interested in finding out more?

To find out more about The Evaluation of the Accessibility of the Community Gardens Project and view the project reports, please contact Katherine Pontifex, Wellbeing SA, katherine.pontifex@sa.gov.au

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