



Nurturing Health Through Community Living

Participatory Action Research Report II

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A Project initiated by



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About the Project



**CHILDREN HAVE
THE POWER TO
MAKE BETTER
FOOD CHOICES**

The Better Eat Better (BEB) programme aims to empower children to make healthier food choices. Inspired by the vision of the MOH Office for Healthcare Transformation, BEB focuses on generating positive behavioural change through community engagement and action.

As an organisation that cares deeply about community support for children from disadvantaged backgrounds, 3Pumpkins felt that it could play a part in improving food literacy for the children and their families. Teaming up with Cultivate Central, an urban permaculture design consultancy, BEB was launched in November 2022 at Tak Takut Kids Club (TTKC), a community social space for children aged 7-14 to gather, mingle and learn as a community. The BEB programme aims to raise awareness, encourage adoption, and empower children and families to advocate for healthy eating.

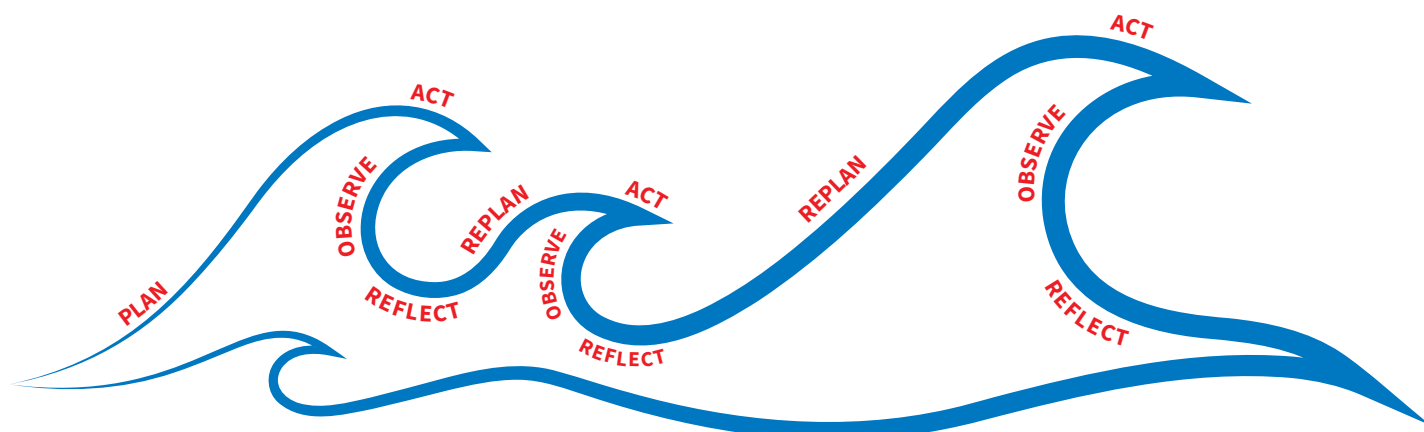
Leveraging community development and self-determination theory principles, collaborative community involvement is prioritised at every stage of the project. Permaculture practices are integrated to guide the exploration of food systems and literacy, sustainability, and action research. By engaging in Participatory Action Research, a non-linear process of planning, action, observation, reflection, and re-planning, the BEB team co-creates its strategy with the community.

To date, at the point of this publication and since 2021, the collaborative effort between 3Pumpkins and Cultivate Central has empowered 200 children and 90 volunteers, generating knowledge and experiences that have benefited over 1000 individuals. TTKC stands as a testament to the power of community engagement in promoting healthy lifestyles and fostering lasting memories.

Participatory Action Research (PAR)

PAR serves as a framework for research and knowledge generation, rooted in the belief that the community most impacted by interventions should actively participate in the research and development process. The PAR process is organic and iterative, with programme implementation constantly tested

and tweaked based on community feedback and environmental changes. Although presented in a cyclical manner, PAR is often non-linear and ‘messy’ in practice. However, our experience has shown that PAR leads to proactive observations, reflection, and action planning, leading to unexpected outcomes and significant impact.



The BEB team adapted participatory action research in waves. Taking into consideration time, resources, project objectives while responding to the rhythm and pulse of community living.

1. PLANNING FOR CHANGE

Consultation with the children, community workers, and volunteers of TTKC to understand current trends and devise potential action plans.

2. ACT

Regular and ongoing community engagement to enable opportunities to grow, shop, cook, and eat together as social learning routine.

3. OBSERVE

Rigorous documentation, compilation and sharing of the activities, interactions, and behaviours that emerge from community engagement.

4. REFLECT & REPLAN

Monthly review sessions to form responsive refinement and evolution of programme design.

In the first year of the programme, from 2022 to 2023, the BEB programme achieved several notable outcomes. These included cultivating a community routine where healthy snacking habits are practiced five days a week, creating a community-led initiative to make healthy

sandwiches for excursions, creating an educational video shown in schools, and building capacity for adults to understand food labels and ingredient lists. More details about these processes are captured in the first [PAR Report](#).

¹ Kemmis, McTaggart, Nixon, The Action Research Planner, Springer Science+Business Media Singapore 2014

Outcomes of community-in-action



Sandwiches Club, a children-led initiative, pro-actively prepares healthy and affordable snacks for the community when they go on excursions.



Children smelling and tasting garden herbs before they harvest them for cooking. The Tak Takut Garden is a place where children learn about food sources.



By incorporating shopping as part of daily social learning experiences, children learn to shop wisely by considering the monetary and nutritional value of the food they choose.



At Tak Takut Kitchen, Children learn essential food preparation skills such as using knives safely. These skills are reinforced through regular engagements such as preparing fruits for skewers to be enjoyed during snack time.



Minister Desmond Lee participates in the “Sugar Shocker” experiment, which is featured as part of the BEB campaign to promote awareness of sugar intake.



TTKC staff, facilitators and volunteers enhance their knowledge on food labels by attending a workshop conducted by NUHS dieticians.

Building upon the outcomes and observations from year one, a more structured routine was practiced in year two. Regular, repeated food and snack practices were introduced through simple shopping and cooking rituals to develop skills like budgeting, reading food labels, portioning, cooking eggs, preparing fruit in various ways, and safely handling knives. Gardening-shopping-cooking rituals (see page 17), which involved Thursday fruit popsicles, Friday community dinners and Saturday egg cups became a favourite staple BEB activity.

However, even though TTKC is able to influence the children through its activities, the team recognises that the children's food choices are still very much influenced by the neighbourhood's local economy. Hence for PAR 2.0, the team felt it was important to understand how TTKC and the neighbourhood influence the children's food choices with these questions in mind:

1. Choices

Where and what types of snacks are TTKC children purchasing in the neighbourhood with their pocket money?

2. Impact

How has the BEB programme nurtured relatedness, competencies, and autonomy of children in the past two years?

3. Sustain

How can we apply these patterns and insights to sustain knowledge transmission and help better guide children toward healthier food choices using their pocket money?

PAR Approach: Co-creating a Survey



Focus group discussion with a group of children to inform the co-creation process of PAR 2.0, Jan 2024.

Plan & Act

The team's first step was to keep an open mind and start by having a conversation with a group of children. Conventional wisdom suggests that children cannot offer any meaningful insights into discussions about food and health, let alone action research. However, a facilitated dialogue with a group of four children offered us observations, reflections and insights on factors that influence their own and their peers' food choices.

The facilitated small group discussion was held in January 2024 as part of the action planning process. This led to a conversation that helped shape both the scope and format of the action research.

Questions that were raised during the dialogue.

- What does research mean to the children?
- What does research as a community mean?
- What format should the action research take?
- What did they observe about their peers' snack and food purchases in the neighbourhood?
- How did they make their food consumption choices?
- Where are they choosing to purchase food from and what are their favourite store-bought snacks?

Insights gained on choices

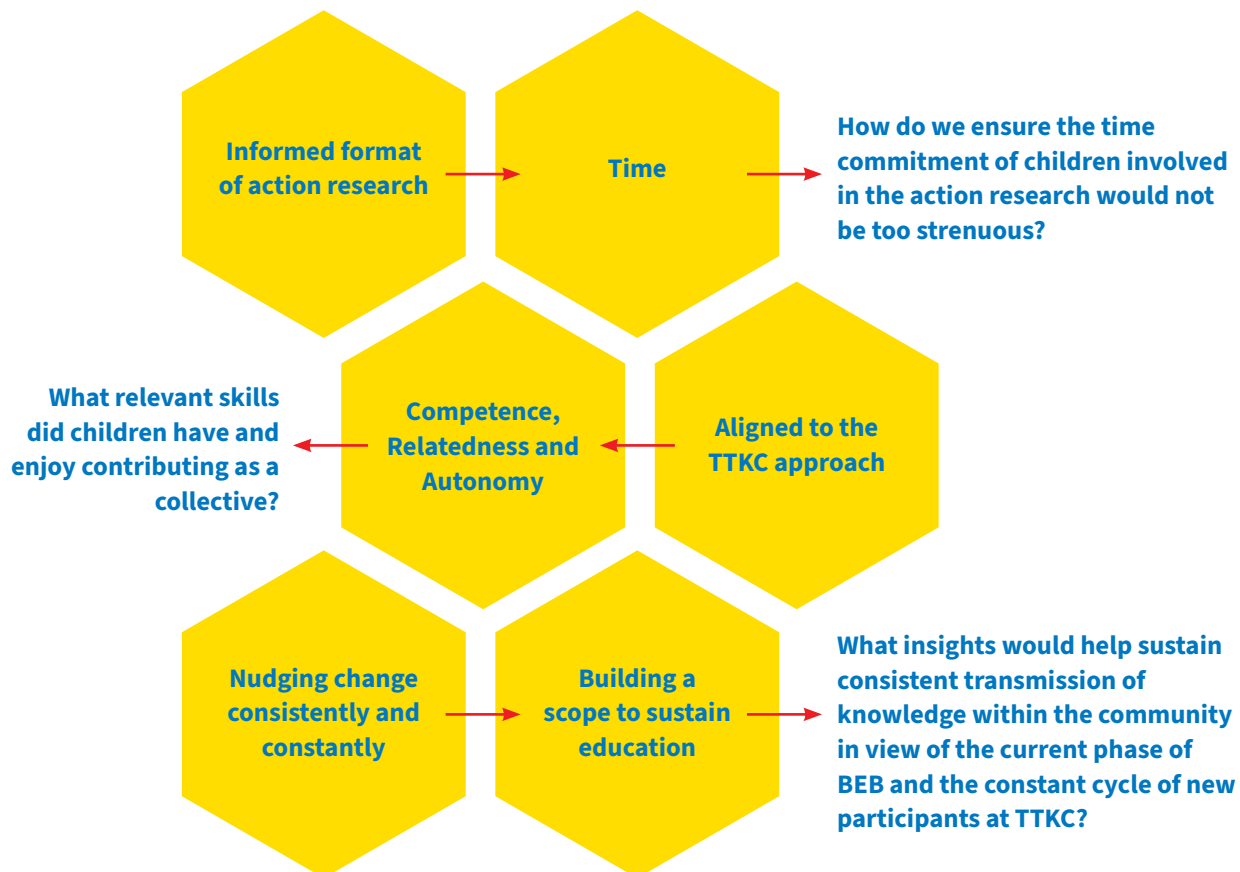
- Older siblings are influencers as they buy treats for the younger siblings.
- Fun to snack while they are out and about on daily activities or playing.
- Budget and amount of pocket money they have.
- Habits, comfort and familiarity influence their purchase decisions. Trying new foods is not always a priority, unlike convenience and budget.
- Sometimes the snacks came in nice packaging or containers. Especially sweets.
- Sometimes they decide on a snack based on friends' recommendation.
- The neighbourhood snack and drinks shop Pearl delight was a popular place for snacks. There are many options that they think it is affordable.

Ideas for the format for the action research included:

- Community drama to raise awareness about better food choices,
- Creating an e-survey,
- Interviews at point of purchase and
- Site observations at the shops.

Observe & Reflect

Following the facilitated group conversations with the children, we were able to better define the format and scope of the community research. Since we wanted the children to be more involved in the formulation of the action research, we mapped out factors that would positively influence involvement of the community in the design of the action research:



With this re-thinking and observations, the design of the second action research was scoped out in the following way:

Format

We decided to use an electronic survey, as the children were comfortable with this format. However, we had to ensure all children, **aged 7-14**, with varying literacy levels could respond to the e-survey. The survey was designed to capture children's attention. The project team kept the e-survey short, with only **3 open ended questions**. Those who could type were encouraged to fill in their own responses, while the research assistants assisted children who needed help.

Enabling Co-Creation

Recognising the community's expertise in video-making, we co-created survey questions with the children in the form of videos. These videos explained the questions in the survey and were embedded into the e-survey. This encouraged conversations about food choices beyond simply answering the e-survey. The research assistants facilitating the e-surveys also took opportunities to discuss food choices when they wrapped up each group e-survey administration.



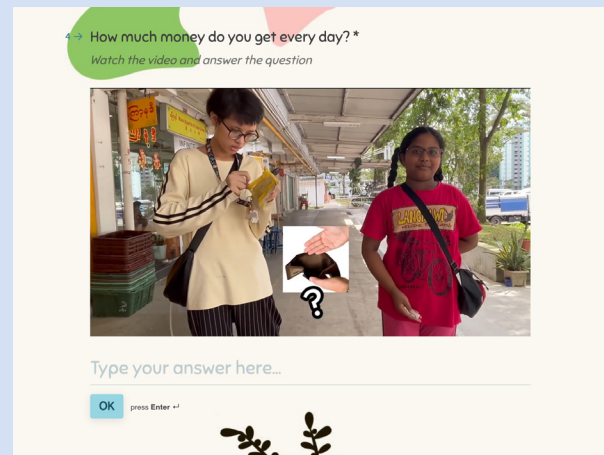
Discussion with the children on executing the filming of videos for PAR 2.0 survey, Mar 2024.

Clarity on future BEB interventions

Questions in the e-survey needed to serve the current phase of the project. The seed phase of the BEB project was coming to an end, therefore the project team needed insights that would provide testimonials and guidance on what worked well, which engagements impacted children the most, and how the community would be guided through the next phase of a health and food engagement programme.

Outcomes

The re-planning and act process led to the roll out of the BEB e-survey that was co-created with the community. The e-survey was designed to be easily conducted in small groups with one facilitator.



To accommodate varying literacy levels in the community and ensure accurate results, the BEB e-survey was co-created with the children and distributed in video format.

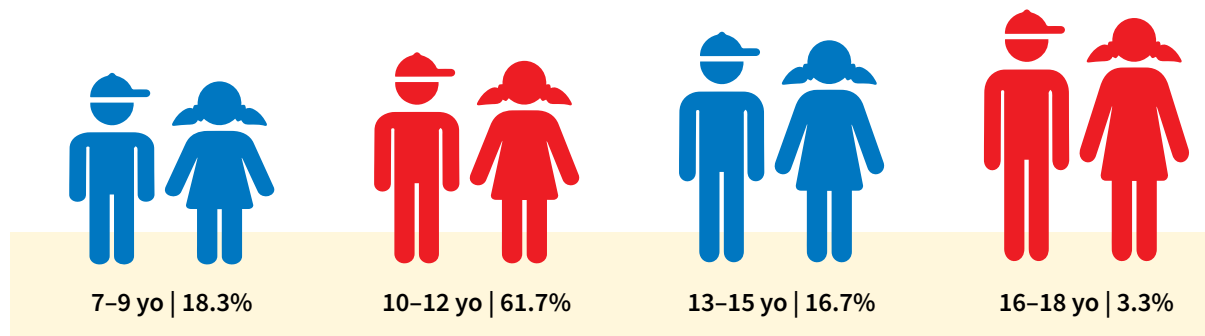
Total responses	60 Children
No. of action research assistants	4 facilitators (approximately 15 children/RA)
Response collection timeframe	1 month
Format	E-survey with embedded instructional videos co-created with the community
Venue	TTKC kitchen (for group sessions)
Time	5-8pm (weekdays) 2-6pm (weekends)

The results from the e-survey explored **where and how TTKC children were spending their pocket money on food and how the BEB programme has impacted the children's awareness and abilities to better consider their food choices.**

Demographics and Pocket Money

Children aged 7 to 18 participated, with a notable number of participants aged 10, 11 and 12. Of the 53 children receiving pocket money, 7 did not specify the amount.

Number of e-survey responders by age group



We identified patterns in pocket money distribution. Generally, younger children (aged 7-9) received SGD2.00, those aged 10-12 typically received SGD4.00 – 5.00. Additionally, a consistent trend emerged: pocket money increased to SGD5.00 and more when children turned 13.

Here is a breakdown of pocket money distribution by age group, based on responses from children who shared how much they typically receive:

Age Group	Number of children surveyed	Range of daily pocket money received
7 – 9	10	SGD 2
10 – 12	32	SGD 4 or 5
13 – 15	9	SGD 5 or 10
16 – 18	2	SGD 10

Purchasing Habits

We learned that food purchase choices for TTKC children are influenced by proximity and affordability. The children tend to grab a quick bite or snack within their budget and follow repeated routines in the neighbourhood.

The older children (13-15 yo) were more open to walk further from their home block to buy meals at the hawker centre; 40% of this group sought out larger meals at the Boon Lay Hawker Centre across the road. Nearly 50% of the (10-12-year-olds) would travel to 7-11, also located across the road to buy their snack or lunch meal.

Younger children (aged 7-9) often spend their pocket money in shops with sugary, fried or high sodium snacks instead of shops with full meals located within their immediate housing block, these shops include Pearl Delight or the neighbourhood “Mama” Shop.

The e-survey concluded the following:

Food purchasing stop	Total Mentions	Mentioned as a choice by age group	Most Popular Items
7-Eleven	26	4 (7-9 yo) 18 (10-12 yo) 3 (13-15 yo) 1 (16-18 yo)	Cup noodles, potato chips and mac and cheese
Pearl Delight	25	6 (7-9 yo) 15 (10-12 yo) 4 (13-15 yo) 0 (16-18 yo)	Bubble tea, cheese fries, and nuggets/seaweed chicken.
Boon Lay Hawker Centre	10	2 (7-9 yo) 4 (10-12 yo) 4 (13-15 yo) 0 (16-18 yo)	Purchases such as soup noodles, fried noodles/ mee goreng, nasi lemak, and mixed rice.
“Mama” Shop	10	2 (7-9 yo) 7 (10-12 yo) 1 (13-15 yo) 0 (16-18 yo)	Commonly bought items include candies & sweets, cup noodles, bread/buns, and soft drinks.

Other Food Sources

Younger children go home for meals. School and Jurong Point were mentioned as alternative places to purchase meals. It came as a surprise that despite consuming and buying Western snacks, the children wished for more Western fast food when asked about perceived gaps in the variety of available food. This request was mentioned 13 times. Other food gap mentions include Chinese, Malay, Indian, and Halal food options while 35% of children did not perceive there was a gap in choice.

These insights have fostered a better understanding amongst the community workers at TTKC of the children's food purchasing behaviour, preferences, and the perceived gaps in food options within the neighbourhood. This information will guide the next step in initiatives to better promote healthier food choices.

PAR Findings: Impact of BEB

What role has the BEB programme played in supporting and fulfilling children's needs for competence, relatedness, and autonomy, the cornerstone of the self determination theory practiced at TTKC?

- What are the children relating to the most?
- What skills are they picking up in the kitchen and garden?
- What new knowledge and skills have the children gained since participating in the programme?

Here is a summary of how participants responded to the content and activities designed specifically for BEB.

Children's Most Favourite BEB Activities



Cooking together
23



Shopping together
19



Eating together
15



Growing together
3

1. Children enjoy structured programming in the kitchen.

The kitchen fared better as a popular space compared to the garden. Action-oriented sessions such as learning to cook from community teachers ranked highly in the kitchen. We learnt that children enjoyed picking up skills in the kitchen. The routinized weekly kitchen initiatives carried out within predetermined time slots facilitated a format that helped reinforce the skills building efforts in the kitchen. Shopping for ingredients, while not as popular as cooking with a teacher, was still highly ranked.

Tuesday Sandwiches



Wednesday Popiah



Thursday Popsicles and fruits



Friday Community meals



Saturday Egg Cups



2. Enjoying the garden beyond gardening.

The garden was less frequented than the kitchen because of its location away from the rest of the TTKC spaces and the need for specific skills from community workers to facilitate activities there.

That said, children still enjoyed spending time in the garden. The simple task of watering the garden is a community favourite and ranked as the most popular activity by the community. The garden also served as an inspiring space for creating garden-themed art, as well as a place for play and conversation, fostering connections among the community.



Children participate in watering the plants, their favourite activity in the garden.



Leaf rubbing art made by TTKC children using plant samples collected from the garden.



Children spray painting and making the garden earthworm mascot together.

Community Voices

The open-ended questions allowed us to learn about specific skills the children were picking up and their growing awareness of cooking, gardening, shopping and healthy eating.

Our keen practitioners

Children aged 7-12 were more focused on acquiring specific hands-on skills and competencies than on articulating healthy eating messages.

Our influencers

The older children, aged 13-18 were more confident in sharing their understanding of food and health knowledge acquired during the programme, making them suitable advocates.

It was clear that participatory action in the kitchen and garden led to increasing awareness of the connection between food and health within the community. Through this round of BEB action research, we learnt that the children are cultivating an almost equal appreciation for cooking skills (45%) and knowledge on healthy eating (42%). However, there is room to build understanding and appreciation for food sources and its links to nutrition and budgeting skills, especially since most children use their pocket money for food and snack purchases in the neighbourhood.

What BEB knowledge did children appreciate learning about the most?



Cooking skills
45%



Healthy Eating
42%



Food Sources
5%



Budgeting
2%



Unsure
6%

Highlighted Quotes



Recommendations



The BEB team is committed to sustaining their efforts in promoting health and well-being for the children. These insights highlight the children's preferences and the social aspects of the programme, pointing to opportunities for enhancing engagement and learning. Based on this action research, the BEB team recommends the following next steps:

1. Sustain Learning through Enhancement of Kitchen and Garden Spaces

Activities that combine practical skills with social interactions, such as cooking and eating together, are highly valued. In a separate evaluation of TTKC's overall center programmes, conducted by Research For Impact (RFI), cooking was identified as the children's favourite activity, making it an effective medium to encourage participation and learning. With a shift towards more child-centric garden engagement, children have responded more positively to garden activities. The BEB team sees great value in maintaining a space where children can learn about food sources and grow their own food. Both the kitchen and the garden serve as key spaces for intergenerational knowledge and skill exchange, offering significant potential to enhance these environments to foster meaningful interactions.

2. Enhance Food Literacy and Body-Nutrition Knowledge

The children demonstrated a strong ability to recall recipes they had learned, and observations of their day-to-day actions in the TTKC kitchen revealed the development of good kitchen habits over time. While they expressed having learned more about healthy eating, it remains unclear whether they can make clear connections between their food choices and the impact on their bodies and health. It appears that the children require more knowledge about how the body functions and how nutrition affects their health. Strengthening this aspect of food literacy, which further reinforces the science curriculum in primary school, could increase their motivation to make better food choices.

3. Empower Children with Budgeting and Numeracy Skills

A major challenge in maintaining community health continues to be the broader social environment, where the predominant food choices are often expensive yet low in nutritional value. With most children having \$5 a day to spend, it's crucial that they develop greater autonomy by understanding budgeting and the value of their spending. The numeracy skills needed to make better food choices also include concepts like estimation, proportions, and measurements. We recommend reinforcing these skill sets, which are also taught in school, to be applied in the context of food and nutrition.

Acknowledgements

Better Eat Better (BEB) Programme

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PAR Report

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