

Engaging children in food systems literacy research: an analysis of children's drawings from the Little Food Festival

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Abstract

Purpose – This study aims to explore the level of food system literacy amongst children and families attending a food sustainability festival and examine children's perspectives regarding which actions they consider feasible and within their sphere of influence to improve our future food system.

Design/methodology/approach – Conducted at the Little Food Festival in Australia, this study involved qualitative, child-friendly methods. Data were collected from children aged 5–12 through arrival and departure surveys, including pictorial responses to the prompt: "What is one action you will take to improve our food system?" Reflexive thematic analysis was used to interpret the children's drawings.

Findings – Survey results revealed limited food systems literacy on arrival ($n = 293$), with most children identifying "supermarkets" as the main food source. Children's drawings after participation in festival activities reflected a broader systemic awareness ($n = 83$), whereby five themes of actions to improve the food system were identified: "gardening", "food consumption", "waste management", "behaviour change and advocacy" and "respect and understanding of the natural ecosystem". Waste management was the most frequently depicted action, likely reflecting existing school and government initiatives. Findings highlight the need for adults to create supportive environments for children's intentions to translate into action.

Originality/value – This study offers a novel contribution by investigating food festivals as accessible sites for developing children's food systems literacy. Utilising an innovative evaluation method, the analysis of children's drawings, this research provides valuable insights into children's perspectives on their role in food system transformation and broader implications for policy and educational practices.

Keywords Food and nutrition, Sustainable development, Children and young people, Qualitative research methodology

Paper type Research article

Introduction

In 2019, the EAT-Lancet Commission announced that the production, supply and consumption of food is the single strongest lever we have to address and optimise personal, community and planetary health (Swinburn *et al.*, 2019; Willett *et al.*, 2019). Their calls for nothing short of a "Great Food Transformation" reverberated across the globe and prompted global and local action. In answering such calls, young people have been identified as a powerhouse of human potential that could transform health and sustainable development (World Health Organization, 2018; International Commission on the Futures of Education, 2021;



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Committee on World Food Security, 2021). Nutrition and food education have an integral role to play, though in their current state they are not fit for purpose (Leahy *et al.*, 2020). If we want children and young people to become transformative agents in food system change, then food education itself also needs to transform and offer new models that can both enable and support young people to take action. It is an ambitious goal that requires creative programmatic efforts to reconfigure food consumers into active food citizens, with greater capacity to effect change (Booth and Coveney, 2015; Rose and Lourival, 2019).

While these calls for transitioning consumers to food citizens are not new (Holt-Giménez *et al.*, 2010; Wilkins, 2005) such calls have largely been confined to the interrelated fields of food democracy and justice and food sovereignty (Booth and Coveney, 2015; Holt-Giménez *et al.*, 2010; Rose and Lourival, 2019). We draw on the insights afforded by these diverse fields in tandem with insights from the field of critical nutrition and dietetics, which invites us to consider the role that civil society can play in driving systemic change from “the bottom up” (Clifford, 2019; Friel *et al.*, 2021). Regardless of the field of origin, there is strong agreement that in order for children and young people to be “activated” to engage in food system transformation, we need programs that can explicitly build the requisite understandings and skills (Warin, 2018). For many, this particular focus hails food literacy as a generative organising concept that can both help us plan for and measure food interventions that are educational in nature. Food literacy as a field has evolved over the past 25 years and has its antecedents that can be traced to Nutbeam’s (2000) definition of health literacy (Nutbeam, 2000). Rather than trace the various contours of what is an expanding field, we focus on more recent literature that considers the urgency of food system transformation and the role food literacy has in helping to both resource and recruit children and young people to contribute to food system transformation.

Food literacy, Veraldo (2015) suggests, can be usefully understood as a set of Russian nesting dolls, with differing subsets of literacies and models to accompany each subset (Veraldo, 2015). It is within this context that food systems literacy has emerged as one such subset (Slater *et al.*, 2018). In setting out a model of food literacy competencies for youth transitioning to adulthood, Slater *et al.* outline a revised model that includes functional competencies, systems competencies and relational competencies (Slater *et al.*, 2018). This model shifts focus from individual behaviour change to a broader approach that cultivates literacies for understanding food systems, equity and health determinants. This perspective is largely absent from current food education and food literacy models (Leahy *et al.*, n.d.; Renwick and Smith, 2020; Slater *et al.*, 2018; Warin, 2023; Welch *et al.*, 2016). Food systems literacy then provides us with an opportunity to disrupt the “business as usual” approach to food education by providing us with a platform to cultivate food citizens who are invested in the work of advocating for change to improve health, equity and sustainability. While food systems literacy is an evolving term, at the core of emerging definitions and models is a recognition that understanding complex foodscapes – the economic, ecological and political influences that shape everyday food environments and food practices – is essential for change. Put simply, food systems literacy intersects with the social and commercial determinants of health (Rose and Lourival, 2019; Renwick and Smith, 2020). The shift to food systems literacy bridges a significant disciplinary fault line and invites us to broaden our programmatic and pedagogical horizons to embrace a broader planetary health lens (The Lancet Planetary Health, 2019). Planetary health refers to “the health of human civilisation and the state of the natural systems on which it depends” (Whitmee *et al.*, 2015). The difficulty here is that we bump up against some difficulties. Renwick and Powell (2019) note that food literacy, for example, is over-theorised and under-practised (Renwick and Powell, 2019). Food systems literacy is a new and evolving concept (Slater *et al.*, 2018), with very few programs or studies that focus on children’s and adolescents’ food literacy (Ares *et al.*, 2024).

It is within this context that the Little Food Festival emerged as one attempt to develop a novel educational model designed to build food systems literacies amongst children. This article reports on our evaluation findings of the Little Food Festival, currently in its seventh

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year of operation. Specifically, the present study aimed to explore (1) the level of food system literacy amongst children and families attending a food sustainability festival and (2) children's perspectives about which actions they consider feasible and within their sphere of influence to improve our future food system.

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Methods

Study design

Food systems literacy is the theoretical framework underpinning this research, which combines public health nutrition and food education lenses. The authors represent these two disciplines, bringing a combination of nutrition, dietetic, public health and education perspectives, with up to 30 years of practical experience and scholarship in related fields. This research adopted an interpretivist approach to data analysis, drawing upon each author's epistemological stance on knowledge and purpose (Moon and Blackman, 2014). Acknowledging that these positionings ultimately influence data analysis, whereby interpretation is inherently tied to our history, culture and ontological role in working towards better food system outcomes for people and the planet (Crotty, 1998; Palermo *et al.*, 2021; Hammelman *et al.*, 2020), the study design incorporated reflexive practices throughout the data analysis, as described below. This study was conducted according to the guidelines laid down in the Declaration of Helsinki, and all procedures involving research study participants were approved by the Monash University Human Research Ethics Committee (ID: 37883). Written consent was obtained from the parents or guardians of all children.

The study was designed to utilise child-friendly research methods, hence asking children to draw pictures, with the option to also write, about one action that they could take to improve the current food system. We selected drawing as it is considered to be a generative research method when researching with children. Eldén (2013) suggests drawing provides children with a familiar medium, which is both enjoyable and relaxing, while also enabling children to express what can be abstract concepts (Eldén, 2013). Additionally, given expressive language can be challenging for many younger children, drawing methods are considered more appropriate, as they can enable a deeper understanding (Liamputtong and Fernandes, 2015). Though drawing analysis cannot be definitive (Eldén, 2013), interpretation offers valuable insights into children's lives, family and community connections. Through this research, we can learn more about children's food system understandings and how they intend to act within it.

Study setting

The festival environment presents a unique opportunity to facilitate food education (Leer and Juel-Jacobsen, 2022; Organ *et al.*, 2015). The Little Food Festival is Australia's first and only public food festival that aims to build children's food systems literacy. Through the diverse language of food, this annual event aims to engage children to collectively reimagine a future food system that is healthy, fair and environmentally sustainable. The Little Food Festival is held at the iconic Federation Square in Melbourne's central business district over two days in school holidays, whereby children and their carers typically attend as a single-day outing. Over the past seven years the festival has engaged over 55,000 children and their families in a series of fun and interactive activations. These activations are facilitated by organisations such as Stephanie Alexander's Kitchen Garden program, OzHarvest and the Commonwealth Scientific and Industrial Research Organisation. Children attending the festival can engage in hands-on, interactive games and activities run by each of these organisations while also engaging with a rolling program of entertainment and demonstrations on the main stage with distinguished and celebrity hosts. While festivals are oftentimes a "one-off" event, for participants who attend, they are considered a useful and memorable public pedagogical tool that can successfully engage children and adults in the social dimensions of food knowledge and skills (Organ *et al.*, 2015; Leer and Juel-Jacobsen, 2022). For nutrition, dietetic and food educators, festivals offer a

Participant recruitment and data collection

Study participants were recruited during the 2023 Little Food Festival. Upon arrival at the event, children and their families were invited to complete an arrival survey (A5 printed, open-ended question and answer instrument, [Supplementary Material A: Arrival Survey Instrument](#)). This survey gathered demographic data and measures of food system literacy amongst festival attendees to inform future event planning and provide contextual data for the second survey. As children and families engaged in the festival activities, they were invited to sit down at a large table with crayons and coloured markers and complete the departure survey (A3 printed, recall question and prompt for pictorial response, [Supplementary Material B: Departure Survey Instrument](#)). The arrival and departure surveys did not intend to gather pre-post data but rather capture different sources of information across the two timepoints. For example, the departure survey aimed to provide some process evaluation data for event organisers to utilise when planning subsequent events. In addition, the departure survey aimed to elicit deeper insights into children's perspectives regarding the actions they perceive as being feasible and within their sphere of influence. Creative methods such as drawing are increasingly being used in health education research to capture data that offer participant insights or the ineffable concepts that children posit in ways that traditional methods cannot (Lupton and Leahy, 2021). After children decided to sit down at the long table of the evaluation activation zone of the festival, they were invited to respond at a leisurely pace to the prompts. The question of relevance to this study prompted: "What is one action you will take to improve our food system? Please draw a picture, tell us with words, or both. And let us know how this action will help both the planet and the people living on it."

Given the nature of the festival environment, we elected to secure verbal consent from participants and their parents prior to them completing either the initial survey or final survey. A financial incentive was offered for children and families who completed the departure survey, where they were given the option of adding personal details to the survey tool.

Data analysis

Completed surveys were handwritten and therefore required manual translation into Microsoft Excel prior to analysis. This process was led by one author, who omitted survey responses from the analysis stage if they contained missing data, responses that were deemed to be written by an adult (after consultation with a second author) or were classified as unreadable. All data entry was cross-examined by a second author to ensure accuracy.

Demographic data about study participants was tabulated using Excel's COUNTIF function to provide context for the results presented in this study. Content analysis was used to interpret children's written responses by identifying patterns, categorising data and quantifying word frequencies (Krippendorff, 2018; Downe-Wamboldt, 1992). Two authors conducted this content analysis collaboratively, whereby a subset of surveys (10%) were interpreted and tabulated by both authors before the remaining were tabulated by one author. Excel's pivot tables were utilised to generate summarised frequency counts, identifying the occurrence of similar survey responses to the questions: "Where does your food come from?" and "List the people who have helped get your food onto your plate".

For analysis of responses to questions – "Food is important for our bodies and our planet. Why?" and "What is one action you will take to improve our food system?" – a reflexive thematic analysis was adopted (Krippendorff, 2018; Downe-Wamboldt, 1992). Responses to the first question were coded by two authors through an organic and evolving process (Mitchell et al., 2011; Slater et al., 2018), with themes and sub-themes defined collaboratively and iteratively throughout the coding process. The second question generated both written text and pictorial data and therefore required an additional step to the thematic analysis. Initially, one

author prepared a brief written description of each illustration within an Excel spreadsheet to aid interpretation. Written descriptions were reviewed and amended by a second author, and then these descriptions were thematically analysed by three authors. [Braun and Clarke’s \(2013\)](#) reflexive thematic analysis approach was adopted, not to remove subjectivity, but rather to transparently document how the identity, disciplinary expertise and beliefs of each author shaped the interpretation of data ([Braun and Clarke, 2006, 2013](#)). Rather than applying a predefined coding framework, themes were actively constructed and refined throughout the analysis process to capture shared meaning. This meaning-making process involved identifying patterns emerging from the data while also drawing on food system literacy literature. Following the six steps of reflexive thematic analysis, written descriptions of each drawing were analysed through familiarisation with the data, initial coding, generating themes, reviewing themes, describing the themes and writing up results ([Braun and Clarke, 2006, 2013](#)). To increase transparency regarding the interpretive approach taken to data analysis, authors kept a detailed record of the initial code words and evolving descriptions of the themes within a spreadsheet, in addition to a series of reflexive notes and meeting minutes to document the iterative process of defining codes, themes and the tensions that emerged during data analysis. Drawings were examined as a collection of civic audience responses, considering both what was depicted and what was absent, with authors asking “What food system actions are drawn” and “How is food represented, and why?” throughout the analysis process ([Mitchell et al., 2011](#); [Farokhi and Hashemi, 2011](#); [Literat, 2013](#)). Rather than applying fixed categories, this iterative and interpretive process enabled the identification of themes that reflected patterns of shared meaning across the illustrations as agreed upon by all authors involved ([Supplementary Material C: Examples to demonstrate Analysis of Pictorial Data](#)).

Results

The majority of study participants who completed the arrivals survey ($n = 293$) were aged 5–8 years (56%) or 9–12 years old (28%) and were visiting the festival from a suburb within Metropolitan Melbourne, with a small proportion coming from regional Victoria, interstate or overseas (4%) ([Table 1: Participant Demographics – Arrival Survey](#)).

When asked, “Where does your food come from?”, children most commonly responded with supermarkets (31%) and farms (19%) ([Figure 1a: Frequency of responses to “Where does your food come from”?](#)) When prompted to list the people who helped get food onto their plate, children reported parents (58%), farmers (10%) and grandparents (10%) as the three most frequently reported responses ([Figure 1b: Frequency of responses to “List the people who have helped get your food onto your plate”](#)). Thematic analysis of qualitative responses to the prompt “Food is important for our bodies and our planet. Why?” revealed two key themes and five sub-themes ([Figure 1c: Thematic analysis of responses to “Food is important for our](#)

Table 1. Participant demographics – arrival survey

Demographics	Frequency (n = 293)	Percentage (%)
Age Group		
2–4 years old	43	15%
5–8 years old	163	56%
9–12 years old	83	28%
13–14 years old	4	1%
Geographic Origin		
Metropolitan Melbourne	277	96%
Regional Victoria	7	3%
Interstate	5	1%
International	1	0.3%

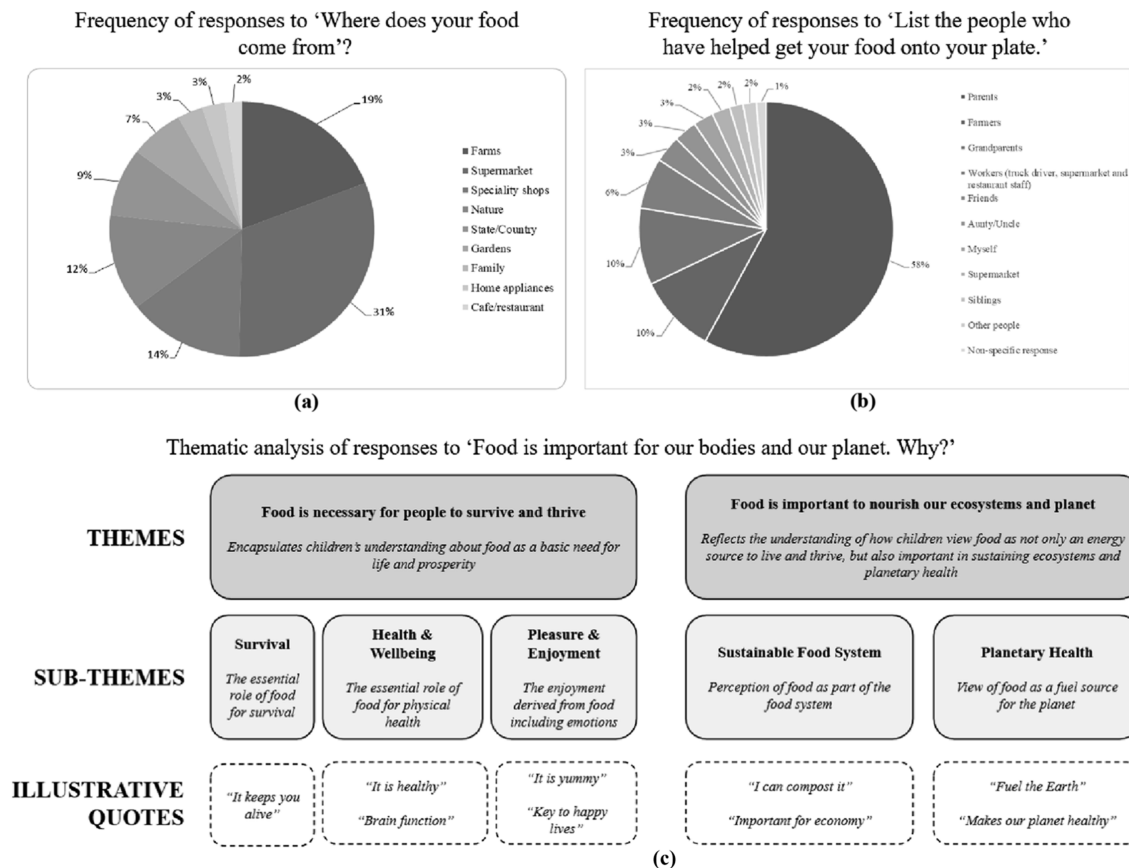


Figure 1. Level of food system literacy amongst children attending the Little Food Festival

bodies and our planet. Why?”). Children recognise the dual role of food in supporting individual survival, health and well-being, as well as its impact on the ecosystem and the planet. This perspective underscored their perception of food as both a vital personal necessity and a crucial component for planetary sustainability.

Shifting focus now to results from the departure survey ($n = 83$). As expected, demographic data were not vastly different from that presented from the arrival survey, as the departure survey was completed by a smaller number of festival attendees. Fewer departure surveys were submitted than arrival surveys, as these required a greater time commitment and were therefore only completed by children who were with carers willing to sit and spend time engaging with the more in-depth worksheet. These results can therefore not be considered representative of all children attending the festival. Children reported that their favourite activities were the self-powered smoothie bike (25%), planting seedlings (23%), drawing (16%), making apple snacks (11%), play dough (10%) and pickling (8%). Thematic analysis of the pictorial data about one action that children will take to improve our food system revealed five key themes and nine sub-themes (Figure 2: *Thematic analysis of responses to “What is one action you will take to improve our food system?”*).

This figure (Figure 2) presents a thematic analysis of children’s responses to the question, “What is one action you will take to improve our food system?”. It reveals five main themes: “gardening”, “food consumption”, “waste management”, “behaviour change and advocacy” and “respect and understanding of the natural ecosystem”, each encompassing one or two sub-themes with a total of nine sub-themes. Notably, the theme “waste management” with sub-themes “reducing general waste in landfill” and “reducing food and food packaging in landfill” is particularly significant. This is due to the high frequency of related codewords such as “compost”, “less food packaging” and “recycling” (see Figure 3a, for example), indicating that “waste management” was most commonly mentioned or emphasised by participants and thus reflecting a majority viewpoint on how to improve our food system. The next most mentioned theme, “respect and understanding of the natural ecosystem”, showcases children’s awareness of conserving natural resources and their knowledge of food’s role in healthy ecosystems and life cycles, illustrated with codewords such as “improving soil health” and “appreciation of nature” (see Figure 3b, for example). This is followed by the themes “gardening”, “behaviour change and advocacy” and finally “food consumption”.

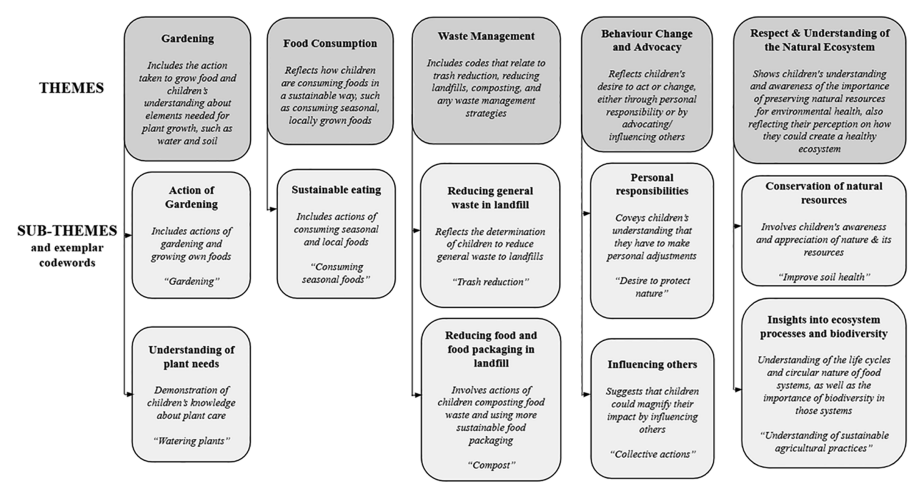
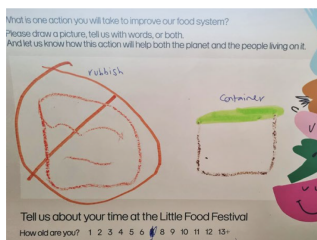


Figure 2. Thematic analysis of responses to “What is one action you will take to improve our food system?”

Illustration by a seven-year-old participant, interpreted as expressing desire to reduce rubbish by using a container with a green lid on the right.

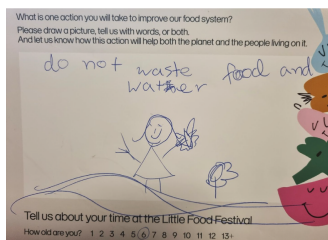


(a)

Two interpretations derived from this illustration:

- 1) Reducing food packaging (e.g., takeaway plastic containers) by using one's own containers
- 2) Composting as compost bins in Australia usually have green lids

Illustration by a six-year-old participant, interpreted as expressing the appreciation of nature (demonstrated by a smiley face, a butterfly on their hand and a flower on their right).



(b)

The insects and plants drawn may symbolise biodiversity in the ecosystem. The phrase could indicate their understanding of the importance of conserving resources such as water and food, and how their waste could negatively impact environmental health.

Figure 3. Example children's drawings and their interpretation

Discussion

This study explored the level of food system literacy amongst children and families attending a food sustainability festival and children's perspectives about which actions they consider feasible and within their sphere of influence to improve our future food system. The food festival is an unexplored mechanism for developing food systems literacy, and the analysis of children's drawings is not a common method for evaluating the impact of such public health interventions. Key insights offered from this study include (1) a greater understanding of children's perspectives about their food's journey through the food system, (2) the influence of existing public health interventions from education, health and government sectors on children, (3) the need for supportive environments to empower children to take meaningful action as food citizens and (4) the need for creative approaches to effectively engage children in transformative efforts within our food system. These four key insights are explained below, situating findings from this study within what was previously published.

Understanding children's perspectives about food's journey

Based on responses in the arrival and departure surveys, children's understanding of food's journey is influenced by education, local environment, infrastructure and parental behaviour. When asked, "Where does your food come from?", the most common answer was "supermarkets", followed by "farms". Although no studies have reported outcomes similar to these, related research indicates a limited understanding amongst children of the complexities of our food systems (Bjørge *et al.*, 2023; Borg *et al.*, 2017; Bonnell *et al.*, 2018). For example, prior to visiting a farm, four-year-old children reported supermarkets as their most frequent source of purchasing food, despite living in partly rural areas, with direct exposure to nearby farms and home vegetable gardens (Borg *et al.*, 2017). Contrastingly, our study with children largely from metropolitan areas did not show a correlation between better food systems knowledge and living in closer proximity to food production sites, as supported by this study (Bonnell *et al.*, 2018).

Influences beyond geographical location: investments from education, health and government sectors

Children's perception of food systems is largely influenced by their engagement in day-to-day activities, as defined by the physical environments that they spend most of their time in. Children's capacity for actions like waste management, understanding of the natural ecosystems and gardening are likely to reflect the infrastructure and resources that our education, health and government sectors have invested in. For instance, most urban local governments in Victoria, the state of Australia where this intervention took place, have a Food Organics, Garden Organics system in place. In addition, there are many school-based waste initiatives where children are actively participating in and learning about sustainable waste-management practices ([Armstrong et al., 2004](#)). [Piras et al. \(2023\)](#) revealed that school-based interventions effectively increased concern about the environmental implications of food waste, and this concern persisted beyond the duration of the school-based intervention and outside the school environment ([Piras et al., 2023](#)). Unfortunately, research on children's home waste management is limited, revealing an opportunity for future research that could help develop strategies to foster sustainable behaviours from a young age. Another example from the education sector is Australia's interpretation and prioritisation of a sustainability curriculum that aims to instil respect, recognition and understanding of the interconnectedness of all life forms, empowering children to contribute towards a more sustainable future ([Australian Curriculum, 2024](#)). Our interpretations of children's drawings align with these educational and infrastructural provisions, reflecting the awareness and knowledge gained from educational and waste policy influences.

The role of supportive environments to empower children as agents of change

It is important to acknowledge that children often cannot take action independently and require a supportive environment to contribute to and lead systemic change. This study presents a large range of actions drawn by children to improve the food system, most of which require adult supervision or the purchasing of materials, for example, planting more trees, composting, recycling more and growing their own food. Research indicates that with guidance and support from adults, particularly from teachers, children gain better understanding about sustainability issues and demonstrate increased participation in related activities ([Borg et al., 2017](#)). For example, teachers can facilitate or hinder the translation of children's food systems awareness into real-world actions by engaging children in decisions about school-based interventions (e.g. garden clubs and chicken coops), providing food sustainability topics as examples in class (e.g. for inquiry-based activities) and prioritising sustainable practices within the classroom food environment (e.g. ensuring organic waste is collected and managed separately from landfill). Similarly, parents and close caregivers can support children by openly reflecting on their own behaviours (e.g. consumption of excessive animal-derived foods), initiating new day-to-day practices (e.g. meat-free Mondays) and sharing the challenges that such changes present (e.g. planning for new recipes and expanding taste preferences). Children's sustainability-related habits are shaped by observations of parents' pro-environmental behaviours and discussion about environmental topics ([Jia and Yu, 2021](#)). This influence is bidirectional, as it creates a feedback loop where children can also play a crucial role in encouraging pro-environmental behaviours amongst their parents. Scholars have highlighted examples of how children can inspire pro-environmental actions amongst caregivers ([Spiteri, 2020, 2023](#); [Tian et al., 2023](#)). Recognising this two-way dynamic, further investigation of children's capacity to be agents of change in transforming the food system is warranted, particularly in the context of public health interventions.

Creative approaches must be embraced to effectively engage children

Children can be powerful catalysts for sustainable transformation. To truly harness their imagination and visionary insights, it is necessary to explore creative, innovative approaches

in the design and implementation of public health interventions. Creative approaches have the capacity to engage multiple voices and are essential for inspiring the “Great Food Transformation” that experts have urgently called for (Willett *et al.*, 2019). In our current and largely problematic food system, children are predominantly vulnerable stakeholders, as forecasts predict that malnutrition, diet-related chronic disease and food insecurity are only going to worsen in the coming decades (Willett *et al.*, 2019). Moreover, the frontline impacts of environmental and climate change will disproportionately affect children of today and will not only shape their future but also that of their descendants (Intergovernmental Panel on Climate Change, 2022).

Early childhood is crucial for fostering physical and mental health and creative approaches to empower children to recognise the power they have to reshape food systems and disrupt this trajectory are vital (Huijsmans, 2016; Glover and Sumberg, 2020). This study provides an example of how this can be achieved, whereby the Little Food Festival has the potential to shape children’s values and beliefs by employing innovative strategies that actively engage them in learning about the food system. Activities such as riding smoothie bikes, planting seedlings, drawing, making apple snacks, playing with dough and pickling were described as favourites amongst children who completed evaluation surveys at the 2023 Little Food Festival. All of these activities required hands-on participation centred on play-based learning that supports the concept of “joy and meaning through food” as a fundamental aspect of developing young peoples’ food literacy (Slater *et al.*, 2018; Essame, 2020). These approaches, tapping into children’s curiosity and play, foster positive food connections. Their popularity highlights the effectiveness of creative learning in deepening food understanding and appreciation.

Evaluating the effectiveness of these interventions requires equally creative and innovative approaches. Festivals are a difficult setting to evaluate, with a transient population group moving through a vibrant, non-linear array of activities facilitated by a diverse range of industry partners. To truly understand the impact of such public health interventions, there is a need for new forms of evaluation. This study presents the analysis of children’s drawings as one example of how the efficacy of the Little Food Festival can be examined, offering a novel research method applied to a novel public health setting.

Strengths, limitations and future directions

The primary strength in this study lies in its exploration of an under-researched area, specifically the understanding of children’s perspectives and knowledge concerning food systems and their potential transformation. Given the scarcity of peer-reviewed literature on this topic, with only a few studies delving into understanding children’s knowledge of food origins and production processes (Bonnell *et al.*, 2018; Bjørgen *et al.*, 2023), this study contributes significant and valuable insights towards the emerging field of youth engagement in food system change. A notable challenge in this study is the interpretation of children’s drawings, which is inherently subjective. This subjectivity is influenced by the sensibilities of the researchers towards food systems knowledge and children’s visual representations, hence producing different interpretations of the illustrations, potentially affecting the study findings. Two of the three researchers involved in the analysis of the drawings were dietitians with an interest and expertise in food sustainability systems and planetary health; therefore, they were interpreting the drawing through the lens. The third research drew upon expertise in food education. While efforts were made to avoid overinterpretation of the drawings, these perspectives influence the interpretation of data. For example, using a drawing from a six-year-old (see Figure 2b), the drawing consisted of a smiling girl holding a butterfly with a flower on their right, which was interpreted as showing an understanding of biodiversity and an appreciation of nature. However, the true intent behind the child’s artwork remains uncertain, as drawings, much like photographs, are open to interpretation and not always representing a straightforward

“reality” (Alerby, 2000). Children’s drawings often do not capture their comprehension and view of the world. Thus, where possible, conducting interviews with participating children about their drawings or recording their oral comments as they draw would be a more comprehensive approach in grasping the bigger picture (Literat, 2013; Banks and Zeitlyn, 2015). Such methods could be utilised by community researchers, policymakers and academics as a tool to involve children in research about topics that ultimately impact them, using a familiar, age-appropriate medium for data collection. Although this study has provided insights into children’s experience at the Little Food Festival, future research is required to truly understand the long-term impact of the festival as a public health intervention. Such research could involve interviews with children who have attended the festival for at least two years to understand if, and how, the festival may have influenced attitudes or actions over time. It remains unseen whether the skills learnt and inspirations drawn from the festival translate into actionable changes in children’s behaviours or attitudes towards food systems. Further research could also explore the impact of parental behaviours and attitudes on the impact of the festival, as this role modelling is likely to influence children’s engagement with further learning and their ability to action the food sustainability activities inspired by the festival.

Conclusion

This study presents a novel approach to the evaluation of a public health intervention that aims to empower children to reimagine a future food system that promotes health, equity and environmental sustainability. Through the analysis of children’s drawings, this study provides insights about the actions that they consider feasible within their sphere of influence to contribute to the transformation of the current food system. The festival is an underexplored setting for a public health intervention and demands innovative, creative and novel evaluation approaches. This study offers a methodological approach that can be applied to other interventions in a similarly challenging setting that is suitable for engaging children in the evaluation process. While further research is required to truly measure the impact of the Little Food Festival, including longer-term changes to food systems literacy, this study has demonstrated that children’s perceptions about feasible actions to improve the food system are influenced by interventions from the education, health and government sectors. It has also highlighted the need for supportive environments to harness and elevate children’s capacity to be agents of change within the food system and to empower them to take meaningful action as food citizens. The children of today are faced with an uncertain food future. The public health community must employ creative approaches to engage and inspire them to be part of the urgently required food system transformation.

Author credentials

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Author contributions

DL and LB designed the evaluation tools. DL led the ethics application. DL and LB facilitated the data collection. LB secured funding for, recruited and supervised WT’s vacation scholarship. WT led the data analysis. LB and WT drafted the initial manuscript. All authors contributed to the final manuscript, are in agreement with the final submitted manuscript and declare that this manuscript has not been published elsewhere.

Ethics statement

This study was conducted according to the guidelines laid down in the Declaration of Helsinki, and all procedures involving research study participants were approved by the Monash University Human Research Ethics Committee (ID: 37883). Written consent was obtained from the parents or guardians of all children.

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Supplementary material

The supplementary material for this article can be found online.

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