

OPERATIONALISING COMMUNITY-BASED RESEARCH THROUGH PHOTOVOICE

W.S.D. Perera¹, U. Kulatunga², Daneesha Ranasinghe³, Rifat Mahamood⁴, Nuwani Kangana⁵ and Chathura De Silva⁶

ABSTRACT

Community-Based Research (CBR) requires methods that are participatory, contextually grounded, and capable of recognising community members as legitimate knowledge holders. This paper critically evaluates the appropriateness of Photovoice as a participatory visual method within the CBR principles in a study examining how public spaces influence community social cohesion. A qualitative reflective design was adopted, drawing on three sources of evidence: semi-structured interviews with five research team members, selected participant narratives generated during the Photovoice process, and a post-implementation evaluation with 30 community participants focus group discussions. The findings indicate that Photovoice effectively captured lived experience, local meanings of public spaces, and changing patterns of social interaction. It also supported empowerment, co-learning, capacity building, and recognition of the community as a unit of identity by enabling participants to represent and interpret their own spatial realities. The method generated rich insights into how everyday public spaces foster interaction, care, intergenerational relationships, and collective wellbeing. However, some CBR principles were only partially achieved, particularly sustainability, long-term engagement, and equitable shared decision-making. It was highlighted that participant and researcher biases, ethical considerations, and resource constraints need to be appropriately managed to ensure that Photovoice generates meaningful outcomes. The study makes an original contribution to the body of knowledge by integrating Photovoice with CBR principles to demonstrate how participatory visual methods can operationalise CBR in practice while generating community-driven insights into the social value and transformation of public spaces.

Keywords: *Community-based participatory research; Photovoice; Public space.*

¹ PhD Scholar, Department of Building Economics, University of Moratuwa, Sri Lanka, pererawsd.24@uom.lk

² Professor in Building Economics, Department of Building Economics, University of Moratuwa, Sri Lanka, ukulatunga@uom.lk

³ Consultant-Research at Office of Research, University of Moratuwa, Sri Lanka, madumadhirad.23@uom.lk

⁴ Lecturer, Department of Town and Country Planning, University of Moratuwa, Sri Lanka, mahamoodmr@uom.lk

⁵ Doctoral Researcher, Department of Civil and Environmental Engineering, Monash University, Australia, Nuwani.Kangana@monash.edu

⁶ Senior lecturer, Department of Town and Country Planning, University of Moratuwa, Sri Lanka, chathurads@uom.lk

1. INTRODUCTION

CBR has emerged as a critical approach for addressing complex social and spatial challenges by actively involving community members in the knowledge production process (Israel et al., 1998; Minkler & Wallerstein, 2008; Banks et al., 2013). Rooted in participatory action research traditions (McFarlane et al., 2022), the CBR approach recognises communities not merely as subjects of study but as co-researchers who possess valuable experiential knowledge of their own environments (Cornwall, 2008). In CBR, empowering community members to take an active role in shaping and leading research activities is fundamental to ensuring that the research is both contextually relevant and ethically grounded (Banks et al., 2013). Such empowerment moves participants beyond the role of passive subjects to that of co-researchers, recognising their experiential knowledge as a legitimate and valuable form of evidence (Freire, 1970; Zhang et al., 2024). Ensuring that community voices are genuinely heard enables the research to capture locally embedded priorities, meanings, and concerns that may otherwise be overlooked by externally driven approaches (Cornwall, 2008). Hence, CBR not only enhances the credibility and validity of research findings yet fosters ownership (Boston et al., 2023), trust (Tariq et al., 2023), and sustained engagement within communities (McFarlane et al., 2022). By centring community perspectives, community-led research contributes to more inclusive knowledge production and supports outcomes that are responsive to local needs, capacities, and aspirations (Banks et al., 2013).

In this regard, the careful selection of research method(s) for CBR is critical, as they should uphold its core principles while remaining accessible, instinctive, and manageable for community members with diverse levels of knowledge and experience (Minkler & Wallerstein, 2008). Such research methods further need to facilitate ease of engagement, encourage active participation, and reduce barriers to meaningful involvement of the community to strengthen the authenticity of the data generated (Tariq et al., 2023). At the same time, maintaining methodological rigour, ethical standards and relevance of CBR remain essential to ensure the credibility and reliability of the outcomes (Lincoln & Guba, 1985; Creswell & Poth, 2018).

There are numerous research methods available for CBR, including interviews, focus group discussions, surveys, participant observation, community mapping, transect walks, storytelling, participatory rural appraisal techniques, diaries and journals, and participatory workshops (Newell et al., 2023; Creswell & Poth, 2018). While these methods provide valuable insights into community experiences, many rely heavily on verbal articulation and researcher-led interpretation, which may limit the ability of participants to express complex spatial, emotional, and everyday lived experiences, particularly among communities with diverse communication abilities, literacy levels, or socio-cultural backgrounds (Newell et al., 2023).

Among these methods, Photovoice is a participatory technique that integrates 'photography' with 'narratives' to enable participants to document, reflect on, and communicate their lived experiences (Wang & Burris, 1997; Li et al., 2025). Unlike conventional qualitative methods that primarily depend on verbal accounts, Photovoice enables participants to visually represent their realities, identify locally significant issues, and actively shape the research agenda through image production and collective reflection (Musoke et al., 2025). The visual nature of Photovoice is particularly valuable in the built environment and community studies, as it facilitates the exploration of spatial

experiences, social interactions, meanings attached to place, and everyday practices that may otherwise remain difficult to articulate through interviews or surveys alone (Wang & Burris, 1997). Furthermore, Photovoice demonstrates strong alignment with the participatory principles of CBR by encouraging shared knowledge production, participant empowerment, critical dialogue, and collaborative reflection (Gabrielsson et al., 2022).

Despite its growing application across participatory research contexts, limited research has critically examined the extent to which Photovoice operationalises and sustains the core principles of CBR in practice. Accordingly, this paper critically evaluates the appropriateness of Photovoice as a research technique for community-based research by using an exemplary, real-life project titled 'Improving Resilience and Social Cohesion Through Transformed Community and Built Spaces' (hereafter referred to as ENSEMBLE project). The ENSEMBLE project investigated the influence of both formal and informal public spaces on the social cohesion of communities. The project adopted a CBR approach, with Photovoice serving as the primary data collection method. Participants in the ENSEMBLE project were asked to capture photographs of public spaces (refer Section 3.4) they perceived as influencing social cohesion within their communities and to provide accompanying narratives explaining the significance of these spaces and their lived experiences.

2. LITERATURE REVIEW

CBR has emerged as a response to traditional research paradigms that often-positioned communities as passive subjects rather than active knowledge holders (Israel et al., 1998; Zhang et al., 2024). At its core, CBR seeks to rebalance relationships between researchers and communities by foregrounding collaboration, mutual learning, and shared responsibility throughout the research process (Scott, 2024). Central to this reorientation is the prioritisation of lived experience as legitimate and authoritative knowledge. Capturing lived experience is therefore not merely a methodological preference but one that grounds research in contextual realities and resists externally imposed framings (Antunes et al., 2022).

Co-creation of knowledge, shared decision-making, and co-learning are often cited as core principles of CBR, yet their transformative potential depends on how deeply they are enacted (Francis et al., 2018; Suarez-Balcazar et al., 2023). Recognising communities as units of identity (Israel et al., 2012) shifts the analytical focus from individual participants to collective histories, relationships, and shared meanings. Co-learning, as described by Israel et al. (1998) and Wallerstein et al. (2017), disrupts the unidirectional flow of expertise by valuing academic and community knowledge equally. However, as Ryan and Squires (2019) caution, conducting research *with* communities introduces tensions related to representation, expectations, and resource constraints.

Capacity building further distinguishes CBR from conventional research approaches. Rather than treating community involvement as instrumental, CBR frames skill development, confidence building, and institutional strengthening as both process and outcome (Ziervogel et al., 2021; Suarez-Balcazar et al., 2023). Empowerment, another CBR principle extends beyond individual skill acquisition to include collective agency and sustained ownership of research agendas (Munck, 2014). Nevertheless, genuine empowerment demands more than short-term engagement; it requires long-term

commitment, shared accountability, and structural responsiveness (Chandanabhumma et al., 2023).

An ecological and contextual perspective of CBR deepens the analytical contribution. By recognising that community experiences are shaped by intersecting social, cultural, economic, political, and environmental forces, CBR embeds multidimensional analysis into research design and implementation (Wallerstein et al., 2017; Oetzel et al., 2022). This approach enhances local relevance and ethical responsiveness, particularly when addressing structural inequities through cultural humility and reflexive practice (Caine & Mill, 2016). Ultimately, CBR is action-oriented, combining research, dialogue, and intervention to produce tangible community benefit (Kleiner et al., 2012; Özçelik, 2025). Its iterative and reflective nature allows adaptation over time, promoting sustainability and inclusive engagement across generations (Antunes et al., 2022; Miller et al., 2022).

3. RESEARCH METHODOLOGY

3.1 DATA COLLECTION

The study investigated the appropriateness of the Photovoice technique within the context of CBR drawing on the community-based project ENSEMBLE. Qualitative research approach was considered most suitable, as it facilitates an in-depth understanding of the subjective, experiential, and context-dependent information (Lincoln & Guba, 1985) related to Photovoice as a participatory research method. The reflective design used within the study further enabled a critical examination of the practical application of Photovoice, including its methodological strengths, limitations, potential biases, ethical considerations, and gaps encountered throughout the research process. This investigation consisted with three components and drew on experiential accounts from both the research team and participating community members as detailed below.

Component 1 - The reflections of the research team (coded as RT01-RT05) who were involved in the field work of the ENSEMBLE project were captured through semi-structured interviews. The research team had been directly involved in the design, facilitation, and implementation of the ENSEMBLE project, hence considered as the most suitable informants to critically reflect on the appropriateness of Photovoice technique in relation to CBR principles. Semi-structured interviews were considered appropriate as they enabled to capture detailed reflections, experiences, and critical insights of the research team while also providing the flexibility to further probe issues emerging during the discussions. The research team consisted with four research assistants and two co-investigators. The co-investigator, who oversaw the overall project coordination and implementation activities, conducted the interviews with the remaining members of the research team.

Component 2 - Following the completion of the Photovoice activities, a post-implementation evaluation through a focus group discussion was conducted with all the community members (30 members - coded M01-M30) engaged in the ENSEMBLE project. Focus group discussions were used as they enabled collective reflection and interactive dialogue among participants, allowing them to share, compare, and deepen their experiences of engaging in Photovoice activities within the ENSEMBLE project.

Component 3 - Narratives produced by the community members during the Photovoice process of the ENSEMBLE project also incorporated to investigate the appropriateness

of Photovoice technique in relation to CBR principles. As participant narratives capture authentic community voices, this method was considered appropriate.

3.2 DATA ANALYSIS

Data obtained from the semi-structured interviews, focus group discussions, and narratives were analysed using content analysis, a systematic technique for coding, categorising, and interpreting qualitative data to identify patterns and themes (Krippendorff, 2013). The study primarily adopted a deductive coding approach, whereby data were analysed using a set of predefined codes derived from the key principles of CBR identified through the literature review. In line with Hsieh and Shannon (2005), these preliminary codes were developed prior to analysis to guide the initial codes deriving from the primary data. The reflections of the research team, focus group discussions and participant narratives were coded and organised under the predefined codes from the literature review. In addition, an inductive coding approach was incorporated to capture emerging concepts not anticipated within the predefined codes, thereby enabling the identification of new insights grounded in the data. This combined deductive–inductive approach facilitated both theory-driven analysis and openness to unanticipated findings, thereby enhancing the depth, rigor, and interpretive robustness of the analysis of the Photovoice process within the CBR context.

3.3 MAINTAINING THE QUALITY OF RESEARCH

By combining interviews, focus groups, and participant narratives, the study achieved methodological triangulation (Donkoh, 2023), enhancing credibility and enabling critical reflection on Photovoice’s alignment with CBR principles. Incorporating the perspectives of both the research team and community members ensured the assessment reflected shared knowledge, not just researcher interpretation, consistent with CBR’s emphasis on reflexivity and collaborative knowledge production. Further, careful consideration was given to potential sources of bias arising from interpretation of community narratives in relation to CBR principles and the research team’s own reflections on the appropriateness of the Photovoice technique within the CBR context. Accordingly, team-based discussions and peer debriefing within the research team enabled multiple perspectives to be considered, thereby reducing the influence of individual interpretations when analysing community responses. To minimise bias in the research team’s reflective accounts, reflections were developed based on their lived experience of the process, supported by recall of events and documented field experiences. However, it is acknowledged that the use of a more structured reflexive practice guided by specific prompts could have further reduced the bias from the study. In addition, the inclusion of direct quotations from both community participants and the research team has been done in the paper to ensure that interpretations remained closely grounded in authentic accounts.

3.4 IMPLEMENTATION OF PHOTOVOICE TECHNIQUE WITHIN ENSEMBLE PROJECT

As Photovoice technique was relatively new to both the research team and within the Sri Lankan context, the data collection process was carefully structured into five stages to ensure methodological rigor, community engagement, and ethical compliance. They

include (1) Site selection (2) Participant identification (3) Community training (4) Photovoice implementation and filtering and (5) post-activity evaluation.

3.4.1 Stage 1: Site Selection and Criteria

When selecting a suitable location for the ENSEMBLE project, following factors were considered; availability of formal and/or informal public gathering spaces, socio-economic and ethnic diversity, accessibility, presence of an active community organization that meet at least once a month and a community that could meaningfully support a participatory Photovoice process. Eight communities were initially shortlisted based on these criteria and having considered the existing social structure that would facilitate coordination, trust-building, and communication between researchers and residents, the final location for the study was selected within the Colombo district.

3.4.2 Stage 2: Identification and Recruitment of Participants

Participant recruitment for the ENSEMBLE project was carried out using a combination of physical and digital outreach strategies to ensure broad community representation. This included displaying printed posters at key public locations within the community and sharing recruitment announcement through community-based Facebook pages and local social media groups, enabling the research team to reach both digitally active residents and those who primarily engage through physical community spaces.



Figure 1: Displaying of posters

A purposive sampling strategy was adopted to recruit participants who were capable of meaningfully engaging with the Photovoice process and contributing diverse community perspectives. As the Photovoice methodology required capturing photographs, recording voice narratives, and sharing geographic location data, participants needed to own a mobile phone and possess basic digital literacy skills. They were also required to commit to engaging with the research team over four to six months, including attending training sessions and workshops. Efforts were made to ensure inclusivity and representation by selecting participants from diverse socio-economic backgrounds, including several differently abled individuals. Of the 74 individuals who initially registered, 30 participants were selected following screening based on eligibility, diversity considerations, and commitment to long-term engagement.

3.4.3 Stage 3: Community Training

To support the effective implementation of the Photovoice methodology, two training sessions (refer Figure 2) were conducted for the selected participants. As the approach was relatively new to the community, capacity building was considered essential prior to data collection. Participants were provided with a printed step-by-step handbook outlining the study objectives, submission procedures, and technical instructions (refer

Figure 3). A live demonstration was also conducted, and participants were guided on recording voice narratives to explain the context and significance of each photograph.



Figure 2: Training workshop and demonstration of photovoice steps with participants



Figure 3: Handbook shared with participants in Sinhalese

Further, ethical considerations were discussed in detail to promote responsible participation such as not to include identifiable images of individuals in their photographs, refraining from taking content that could be interpreted as discriminatory toward any religion or ethnicity. Participants were then given specific requirements for the Photovoice task. Each participant was instructed to capture between eight and ten photographs representing locations they considered significant within the community. For every photograph, they were required to provide a short voice-recorded narrative, limited to four to five sentences, explaining the relevance of the image. Location information had to be submitted along with each entry. This structured training phase ensured methodological consistency, ethical compliance, and improved the overall quality and reliability of the data collected during the Photovoice implementation stage.

3.4.4 Stage 4: Implementation of Photovoice and Data Filtering

During this phase, the research team-maintained communication with participants to provide technical support and clarification where necessary, while ensuring that the documentation process remained participant-driven. From the 30 selected participants, a total of 239 Photovoice entries were received. Each entry consisted of a photograph, an accompanying voice-recorded narrative, and geographic location data. Given the exploratory and participatory nature of the ENSEMBLE project, a systematic multi-stage filtering process was undertaken to ensure data quality, ethical compliance, and analytical relevance to short list 150 Photovoice. In the subsequent stage, a more refined thematic review was conducted, resulting in the selection of 50 photographs that most clearly represented key spatial and social themes emerging from the dataset. These shortlisted photographs were then grouped according to thematic relevance to support deeper qualitative interpretations related to the ENSEMBLE project.

4. ANALYSIS AND DISCUSSION

The following section illustrates the appropriateness of Photovoice for CBR through the systematic integration, analysis, and presentation of data collected from multiple sources, including photographs, participant narratives, semi-structured interviews, and focus group discussions.

4.1 CAPTURING THE LIVED EXPERIENCE AND SOCIAL CHANGE

Capturing lived experience is a foundational principle of CBR, as it ensures that knowledge production is grounded in how community members experience, interpret, and give meaning to their everyday realities (Oetzel et al., 2022; Lindawati & Marniati, 2024). As evident from the Photovoice (photos and narratives) of the community members, participants foregrounded spaces that were meaningful in their daily lives, such as community wells, clinics, playgrounds, religious sites, cemeteries, and informal gathering areas, thereby capturing routine practices, emotional attachments, and social relationships that are often overlooked in conventional expert-led research. Narratives captured indicated that participants did not merely describe physical spaces; they explained how these spaces were used, how they felt within them, and how their meanings evolved over time. For example, community wells were described as sites of social exchange and mutual support (M02), clinics as places of both physical and emotional healing (M07) and play areas as locations where people interact and build relationships (M08, M12). As M02 narrated, “When we come to fetch water at the well, we meet and discuss the hardships of our families and issues in the village. It is also where we share news and help each other.” Such accounts demonstrate how Photovoice captured lived experience, aligning with CBR’s emphasis on understanding wellbeing and social cohesion within everyday contexts (Israel et al., 1998; Rosa, Santos, et al., 2025). Importantly, Photovoice enabled reflection on change and collective meaning-making, further deepening the capture of lived experience. The narratives given by M20, M25, M15 compared past and present uses of public spaces. For an example, M25 stated how crises such as the COVID-19 pandemic reshaped social interaction and collective practices.



Figure 4: Photovoice images of the ENSEMBLE project: Lovi tree, cemetery, and community well

Accordingly, by positioning community members as active knowledge producers rather than research subjects, the photos and narratives given by the community members clearly indicate how Photovoice helped address power asymmetries and legitimised lived experience as valid evidence (Gabrielsson et al., 2022).

4.2 EMPOWERMENT AND REDISTRIBUTION OF RESEARCH AUTHORITY

According to Wallerstein et al. (2018), shared power, voice, and community leadership are central to empowerment within CBR. In this study, Photovoice contributed to

participant empowerment by positioning community members as active contributors and co-researchers rather than passive respondents. Participants transformed their lived experiences into analytical knowledge, drawing on their observational skills, storytelling capacities, reflective insights, and local expertise. As reflected by RT03 “by allowing participants to choose what to photograph, how to interpret their images, and which issues mattered most, the study redistributed authority to community members and amplified voices often marginalised in externally driven research.” The research team members RT01 and RT 04 further noted that, through the Photovoice technique, community members exercised greater control over how their everyday spaces and experiences were represented, contributing to a sense of ownership over the knowledge produced. These reflections demonstrate how Photovoice supported empowerment as a process, consistent with CBR that emphasises control over representation and meaning as central to participatory research (Phillip et al., 2025).

4.3 ECOLOGICAL AND CONTEXTUAL PERSPECTIVE

The narratives given by M11 and M16 reflected on the loss of once-vibrant gathering spaces and changes in social interaction patterns. As M16 noted, “earlier, this was a meeting place for many youth societies. But now we cannot reach that place because of the highway... it has become deserted.” Beyond physical accessibility, many participants highlighted the cultural and symbolic meanings of place, identifying temples, cathedrals, medical centres, and community banks as significant public spaces due to their social and spiritual functions. M20 explained, “this picture is of the village Primary Medical Center. We attend clinics here once a month. A friendly meeting is held among the patients who come here.” These accounts illustrate how Photovoice captured the ecological embeddedness of community life, showing how wellbeing emerges from interactions between built environments, social relationships, cultural practices, and institutional structures (Collins et al., 2018). Through the Photovoice technique the study documented how public spaces evolved in response to disruptions such as the COVID-19 pandemic. M09 and M18 described how spaces were socially reconfigured to meet emerging needs. As M18 reflected, “Before the pandemic, the cemetery was rarely visited. But during COVID, it became a place where people gathered to stay out of the house. Food distribution happened there; we took food to houses with COVID patients from here.” This narrative demonstrates how Photovoice effectively captured the ways in which community dynamics are shaped by context-specific norms, including collective responsibility and informal coordination, rather than by formal institutional directives.

4.4 COMMUNITY AS A UNIT OF IDENTITY

In addition to demonstrating an ecological and contextual perspective, the Photovoice given by the community members strongly reflected the CBR principle of recognising the community as a unit of identity (Suarez-Balcazar et al., 2023; Wallerstein et al., 2018). Participants’ accounts revealed shared values of care, mutuality, and collective responsibility, particularly during periods of hardship. Photovoice enabled these collective identities to emerge organically through community storytelling, rather than being inferred solely by the research team. The narrative of M19 stated “this is the Lovi tree where people gather to enjoy fruits. We put a ladder to pick them and distribute to the whole village... Children loved it. This tree has been producing fruits for many years and still central to community gatherings.” Such narratives highlight how Photovoice has captured public spaces that function as sites of collective belonging and social continuity.

4.5 CO-LEARNING

Co-learning is a core principle of CBR, emphasising reciprocal knowledge exchange within and between communities (Rosa, Santos, et al., 2025; Wallerstein et al., 2018). By centring community narratives and visual evidence, Photovoice facilitated co-learning among participants through peer-to-peer sharing of skills and experiences, strengthening collective capacity and mutual understanding. This was evident in intergenerational digital skill transfer during the project. During the focus group discussions M20 noted, “I did not know how to upload the photographs to the online platform at first. A young person in the village showed me step by step how to do it.” The reflections captured through the interviews revealed how the overall Photovoice process fostered co-learning within the research team, particularly in navigating challenges related to managing community expectations, engaging local leaders, and building trust within the community.

4.6 BUILDING ON COMMUNITY STRENGTHS AND RESOURCES

Consistent with the CBR principle of building on community strengths rather than focusing on deficits (Minkler & Wallerstein, 2008), the research team intentionally leveraged existing social networks and community groups for the project. The reflection of RT01 and RT03 showed how Buddhist groups, women’s groups, and youth groups were engaged as entry points when recruiting community members to the project, ensuring broad participation and grounding the research in established community capacities.

4.7 INCLUSIVITY, INTERGENERATIONAL ENGAGEMENT, AND CAPACITY BUILDING

The inclusion of participants across different age groups, genders, and social roles within the Photovoice activities enhanced the inclusivity and intergenerational engagement of the study, aligning with participatory equity principles in CBR (Wallerstein et al., 2018). The narratives given by the senior participants provided historical perspectives on changing spaces, while the narratives of the younger participants documented contemporary uses and digital practices. According to Minkler et al. (2012), capacity building is a fundamental principle of CBR, aimed at strengthening community skills and competencies through the research process. In this study, to prepare the participants for the Photovoice activities, training workshops on photography and data sharing were conducted. As M21 noted, “The practical session encouraged participants from different age groups to understand the technique and actively engage in the Photovoice activity... this improved community involvement and cohesion.”

4.8 LIMITATIONS OF THE PHOTOVOICE RESEARCH TECHNIQUE

Although the study successfully engaged community members in documenting and interpreting public spaces through Photovoice, certain CBR principles were only partially realized. CBR principles sustainability and long-term engagement were limited, as the study was conducted over a defined period and did not include mechanisms for ongoing community involvement or follow-up activities beyond data collection. Similarly, another CBR principle equitable partnerships and shared decision-making were constrained, with most methodological and analytic decisions guided primarily by the research team, rather than being fully co-designed or jointly managed with community participants throughout

the study. Further, although the final Photovoice outputs were selected by the research team following discussion and deliberation, this process may have introduced a degree of researcher bias into the study.

Moreover, during the ENSEMBLE project it was noted that while photographs can powerfully communicate lived experiences, visual representations may oversimplify complex social realities and exclude less visible dimensions such as emotions, histories, or structural inequalities. Similarly, during the Photovoice participants may have chosen places that held personal importance to them, thereby introducing a degree of participant bias. Furthermore, participants may have preferred locations that were easier to access or photograph, which could have affected the genuine representation of places that were most significant to the study context.

Further, in some instances, the visual nature of Photovoice raises complex ethical concerns related to consent, anonymity, representation, and ownership of images, particularly when documenting sensitive community experiences. For example, despite providing clear instructions on ethical considerations (refer Section 3.4.3), there were instances where community members captured photographs that included other individuals without obtaining their consent. Furthermore, it was also noted that the implementation of Photovoice technique was resource-intensive, requiring substantial time, facilitation skills, and ongoing participant engagement.

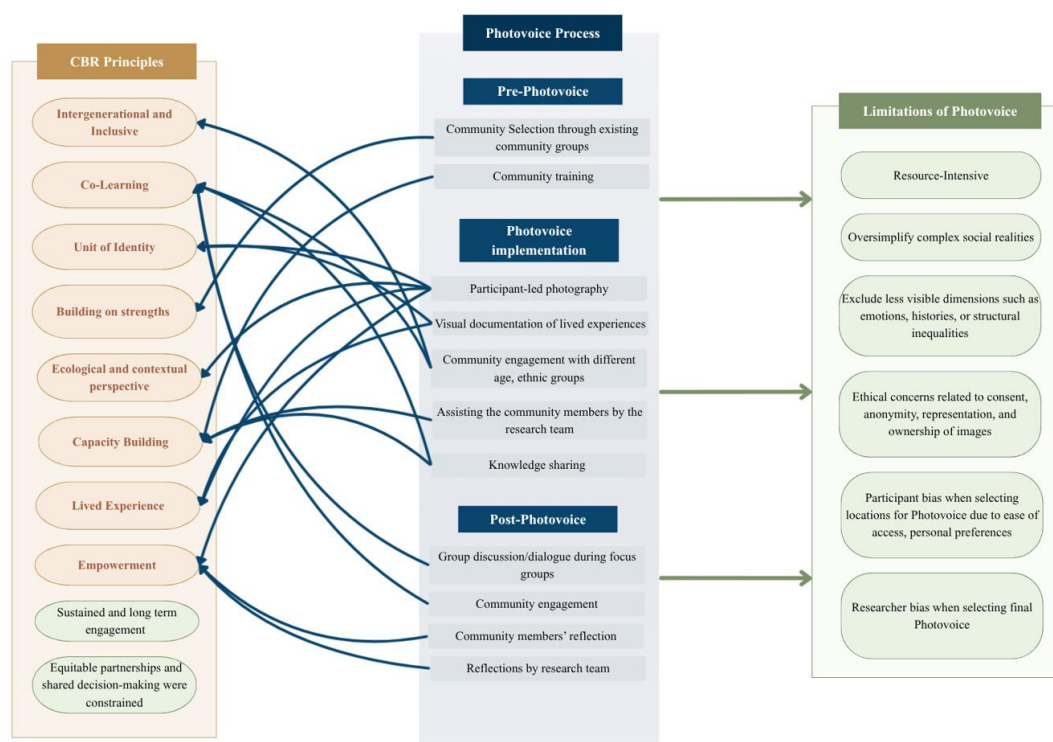


Figure 5: Appropriateness of photovoice as a research technique for community-based research

The overall evaluation in Figure 5 suggests that Photovoice is an appropriate method to operationalise key CBR principles. Figure 5 further indicates that pre-Photovoice phase was instrumental in establishing the key CBR principles and promoted capacity building and co-learning by equipping community members with the skills and confidence to engage meaningfully in the research process. During the implementation phase,

Photovoice enabled participants to visually capture and communicate their everyday experiences of public spaces, facilitating the recognition of local knowledge and lived experiences as legitimate forms of evidence beyond conventional verbal expressions. The post-Photovoice phase reinforced the participatory principles of CBR through collective reflection, dialogue, and knowledge sharing among participants and researchers.

While Photovoice fostered meaningful engagement during the study period, the synthesis in Figure 5 shows the time-bound nature of the project limiting opportunities for ongoing collaboration and long-term community involvement beyond the completion of the research. As such, although Photovoice can facilitate participation, empowerment, and co-learning, achieving deeper forms of shared decision-making and sustained engagement may require complementary strategies and longer-term partnerships that extend beyond the application of the Photovoice itself. Further, Figure 5 highlights several limitations affecting the extent to which Photovoice can fully realise its application within CBR context, including its resource-intensive nature, which may challenge sustainability in resource-limited settings; potential oversimplification of complex social realities leading to underrepresentation of certain experiences; ethical concerns and participant and researcher biases that may potentially limit the extent to which the resulting narratives accurately reflect the diversity of broader community perspectives. Hence, it can be argued that Photovoice can be considered an appropriate method for CBR when implemented reflexively and supported by strategies that address potential biases, ethical concerns, and resource constraints.

5. CONCLUSION

This paper critically evaluated the appropriateness of Photovoice as a technique for CBR through an in-depth examination of the ENSEMBLE project, providing empirical insights into how the method operationalised key CBR principles in a real-world research context. By positioning participants as co-researchers, Photovoice captured lived experience, revealing how everyday routines, hardships, social, cultural, economic, and political factors foster social connection, collective care, and intergenerational engagement.

The outcomes of the study suggest that the appropriateness of Photovoice for CBR should not be understood solely in terms of its capacity to generate rich visual data. Rather, its value lies in its ability to facilitate participatory processes that operationalise key CBR principles, including inclusivity, co-learning, empowerment, recognition of local knowledge, capacity building, and contextual understanding. However, achieving these benefits requires careful attention to the methodological, ethical, practical limitations and potential biases inherent in the technique.

From a theoretical perspective, the study contributes to the literature on CBR by illustrating how CBR principles can be operationalised through participatory visual methods to foreground community knowledge and lived spatial experiences. By recognising the community as a unit of identity and building on existing local strengths, the research highlights how participatory approaches can facilitate the co-production of knowledge between researchers and community members. Hence, the study advances participatory research by showing how Photovoice can simultaneously capture lived experiences, facilitate community reflection, and critically evaluate the application of CBR principles in practice, while paying close attention to potential biases and ethical considerations. Further research could explore how structured reflexivity frameworks and

participatory ethics protocols can be developed and applied within Photovoice and other CBR approaches to systematically identify, monitor, and mitigate potential biases while ensuring ethically robust practice across diverse community contexts.

6. ACKNOWLEDGEMENT

Authors would like to acknowledge financial support provided by the project titled ‘Improving Resilience and Social Cohesion Through Transformed Community and Built Spaces’ (ENSEMBLE), funded by the New Frontiers in Research Fund, Canada.

7. REFERENCES

- Antunes, A. L. M. de P., Cachelin, A., Fitisemanu, L., Folau, M., Hart, S., Kuttner, P. J., & Salcedo, A. (2022). Establishing principles for community-based research. *Metropolitan Universities*, 33(3), 52–68. <https://doi.org/10.18060/25819>
- Banks, S., Armstrong, A., Carter, K., Graham, H., Hayward, P., Henry, A., Holland, T., Holmes, C., Lee, A., McNulty, A., Moore, N., Nayling, N., Stokoe, A., & Strachan, A. (2013). Everyday ethics in community-based participatory research. *Contemporary Social Science*, 8(3), 263–277. <https://doi.org/10.1080/21582041.2013.769618>
- Boston, P. Q., Strouble, B., Balogun, A., Lugo-Martinez, B., McClain, M., Mitchell, M. M., Wasserman, K., Rahn, D., Greenberg, M., & Garibay, C. (2023). Community voices on the experiences of community-based participatory research in the environmental justice movement. *Social Sciences*, 12(6), 358. <https://doi.org/10.3390/socsci12060358>
- Caine, V., & Mill, J. (2016). *Essentials of community-based research*. Routledge. <https://doi.org/10.4324/9781315545004>
- Chandanabhumma, P. P., Gabrysiak, A., Brush, B. L., Coombe, C. M., Eng, E., Jensen, M., Lachance, L., Shepard, P., Wallerstein, N. B., & Israel, B. A. (2023). Cultivating an ecosystem: A qualitative exploration of sustainability in long-standing community-based participatory research partnerships. *Progress in Community Health Partnerships: Research, Education, and Action*, 17(3), 393–404. <https://doi.org/10.1353/cpr.2023.a907963>
- Collins, S. E., Clifasefi, S. L., Stanton, J., The LEAP Advisory Board, Straits, K. J. E., Gil-Kashiwabara, E., Rodriguez Espinosa, P., Nicasio, A. V., Andrasik, M. P., Hawes, S. M., Miller, K. A., Nelson, L. A., Orfaly, V. E., Duran, B. M., & Wallerstein, N. (2018). Community-based participatory research (CBPR): Towards equitable involvement of community in psychology research. *American Psychologist*, 73(7), 884–898. <https://doi.org/10.1037/amp0000167>
- Cornwall, A. (2008). Unpacking “participation”: Models, meanings and practices. *Community Development Journal*, 43(3), 269–283. <https://doi.org/10.1093/cdj/bsn010>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Freire, P. (1970). *Pedagogy of the oppressed*. Continuum.
- Gabrielsson, H., Cronqvist, A., & Asaba, E. (2022). Photovoice revisited: Dialogue and action as pivotal. *Qualitative Health Research*, 32(5), 814–822. <https://doi.org/10.1177/10497323221077300>
- Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998). Review of community-based research: assessing partnership approaches to improve public health. *Annual review of public health*, 19, 173–202. <https://doi.org/10.1146/annurev.publhealth.19.1.173>
- Israel, B. A. (2013). *Methods for community-based participatory research for health* (2nd ed.). Jossey-Bass.
- Julian McFarlane, S., Occa, A., Peng, W., Awonuga, O., & Morgan, S. E. (2022). Community-based participatory research (CBPR) to enhance participation of racial/ethnic minorities in clinical trials: A 10-year systematic review. *Health Communication*, 37(9), 1075–1092. <https://doi.org/10.1080/10410236.2021.1943978>

- Kleiner, A., Kerstetter, K., & Green, J. (2012). Community-based research: Analysis of outcomes for learning and social change: An introduction. *Journal of Rural Social Sciences*, 27(2), Article 1. <https://egrove.olemiss.edu/jrss/vol27/iss2/1>
- Li, S., Gulley, J., Booty, M., Firchow, B., & McGladrey, M. L. (2025). Using photovoice to improve engagement in community health assessments addressing behavioral health. *Journal of Behavioral Health Services & Research*, 52(2), 213–230. <https://doi.org/10.1007/s11414-024-09885-4>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
- Lindawati, L., & Marniati, M. (2024). Implementation of digital health service policies based on community-based research (CBR) to improve patient accessibility in remote areas. *Health Journal of Community Services*, 1(3), 217–225. <https://doi.org/10.62569/hjcs.v1i3.100>
- Miller, A. K., Alejano-Steele, A., Finger, A., & Napolitano, K. (2022). The Colorado project to comprehensively combat human trafficking: Community-based participatory research in action. *Journal of Human Trafficking*, 8(1), 59–81. <https://doi.org/10.1080/23322705.2021.2019532>
- Minkler, M., & Wallerstein, N. (2008). *Community-based participatory research for health: From process to outcomes* (2nd ed.). Jossey-Bass.
- Munck, R. (2014). Community-based research: Genealogy and prospects. In R. Munck & L. McIlrath (Eds.), *Higher education and civic engagement: Comparative perspectives* (pp. 11–26). Palgrave Macmillan. https://doi.org/10.1057/9781137385284_2
- Musoke, D., Nalinya, S., Namata, C., Ssemugabo, C., & Ndejjo, R. (2025). Use of photovoice in health systems research: Methodological considerations and experiences from Uganda. *Health Research Policy and Systems*, 23, 156. <https://doi.org/10.1186/s12961-025-01420-x>
- Newell, R., Dring, C., & Newman, L. (2023). Participatory research methods for examining lessons from COVID-19 about local food systems vulnerabilities to exogenous shocks. *Collaborations: A Journal of Community-Based Research and Practice*, 6(1), 12. <https://doi.org/10.33596/coll.116>
- Oetzel, J. G., Villegas, M., Zenone, H., Boursaw, B., Magarati, M., Dickson, E., Sanchez-Youngman, S., Morales, L., Kastelic, S., Eder, M., & Wallerstein, N. (2022). Establishing the benefits of CBPR: An empirical study of CBPR partnership outcomes. *American Journal of Public Health*, 112(6), 906–916. <https://doi.org/10.2105/AJPH.2022.306883>
- Özçelik, M. (2025). Promoting healthy eating habits: The role of community-based research in nutrition. *Journal of Neonatal Surgery*, 14(10S), 900–905. <https://doi.org/10.63682/jns.v14i10s.3168>
- Phillip, E., Walsh, A., Jewitt, S., Conroy, R. M., & Stanistreet, D. (2025). Impact of community-based participatory research on capacity building: Findings from a household and ambient air project. *Sustainable Futures*, 10, 101139. <https://doi.org/10.1016/j.sfr.2025.101139>
- Tariq, S., Grewal, E. K., Booth, R., Nat, B., Ka-Caleni, T., Larsen, M., Lawson, J., Whaley, A., Walsh, C. A., & Campbell, D. J. T. (2023). Lessons learned from a virtual community-based participatory research project: Prioritizing needs of people with diabetes and experiences of homelessness to co-design a participatory action project. *Research Involvement and Engagement*, 9, 46. <https://doi.org/10.1186/s40900-023-00456-z>
- Scott, M. L. (2024). Participatory community-based research. <https://doi.org/10.1093/obo/9780195389678-0340>
- Suarez-Balcazar, Y., Balcazar, F., Miranda, D. E., Velazquez, T., Arcidiacono, C., & Garcia-Ramirez, M. (2022). Promoting justice through community-based research: International case studies. *American Journal of Community Psychology*, 69(3–4), 318–330. <https://doi.org/10.1002/ajcp.12584>
- Wallerstein, N., Duran, B., Oetzel, J. G., & Minkler, M. (Eds.). (2017). *Community-based participatory research for health: Advancing social and health equity*. John Wiley & Sons.
- Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, 24(3), 369–387. <https://doi.org/10.1177/109019819702400309>
- Wang, C. C., Yi, W. K., Tao, Z. W., & Carovano, K. (1998). Photovoice as a participatory health promotion strategy. *Health Promotion International*, 13(1), 75–86. <https://doi.org/10.1093/heapro/13.1.75>
- Wojciechowski, L., & Kramer, J. (2025). Assessing partnership: Utilizing community-based participatory research to evaluate participatory design. *IEEE Global Humanitarian Technology Conference (GHTC)*, 219–225. <https://doi.org/10.1109/ghtc66843.2025.11266611>

Zhang, Y., Xie, Y. J., Yang, L., Li, X., Chen, H., & Wang, P. (2024). Community-based participatory research (CBPR) approaches in vaccination promotion: A scoping review. *International Journal for Equity in Health*, 23, 227. <https://doi.org/10.1186/s12939-024-02278-1>