BECOMING LAKE STEWARDS: A PHENOMENOGRAPHIC STUDY OF VOLUNTEERS' CONCEPTIONS OF ENVIRONMENTAL CITIZENSHIP IN THE SAMPALOC LAKE CLEAN-UP DRIVE

Bernardo C. Lunar
SPC Dean & Director
Graduate School & REPO

Noemi L. Lunar
SPC Collegiate Faculty
Co-Author

Angelique D. Perez
SPC Collegiate Faculty
Co-Author

This study examines how volunteers understand environmental citizenship through participation in clean-up activities in the Seven Lakes of San Pablo, Laguna. It aims to describe the qualitatively different ways volunteers conceive of participation, stewardship, and community. A phenomenographic design is appropriate because it focuses on variation in how a group experiences or understands a shared phenomenon and represents this variation through categories of description and an outcome space (Åkerlind, 2012). Thirty volunteers were recruited through maximum-variation sampling that ensured variation in age, gender, and first-time or repeat participation. Participants took part in clean-up activities held on September 14, 21, and 28, 2025. The planned analysis compared interview accounts to identify distinct conceptions and their structural relationships. Grounded in participant accounts, the study contributes locally specific insight for environmental education, volunteer engagement, and collaborative lake conservation. Its focus connects with Sustainable Development Goals 6, 11, 13, 14, 15, and 17.

Keywords: environmental citizenship, phenomenography, lake conservation, volunteerism, environmental stewardship, Sampaloc Lake

Introduction

Freshwater lakes support ecological processes, local livelihoods, recreation, and community identity. Their conservation depends on environmental monitoring and management as well as on the participation of people whose everyday lives are connected to these places. Volunteers who join clean-up activities encounter lake conditions directly and take part in a collective conservation effort.

The Seven Lakes of San Pablo (Sampaloc, Bunot, Palakpakin, Mohicap, Yambo, Pandin, and Calibato) form an important ecological and community landscape in Laguna. Paller et al. (2021) reviewed research and monitoring related to the lakes and argued for a holistic ecosystem approach that includes biophysical conditions, social and economic dimensions, and stakeholder participation. This perspective situates local volunteer activity within a broader conservation context. Clean-up participation, however, is only one form of engagement, and its meaning cannot be assumed from the activity alone. Volunteers may differ in what they notice, what they consider their responsibility, and what they believe should happen after the clean-up.

Environmental citizenship offers a way to examine how people understand their relationship to environmental care and collective action. Environmental volunteering may involve environmental values, civic engagement, personal learning, social connection, identity, and a sense of obligation (Schild, 2018). These dimensions provide useful context, but they do not predetermine what volunteers in San Pablo understand their participation to mean. At the institutional level, Lunar and Eala (2023) discussed educational innovation initiatives at San Pablo Colleges, including a social-ecological direction for innovation, and Lunar, Eala, and Perez (2025) identified environmental sustainability and stakeholder engagement as areas requiring attention at the College. These studies connect education, sustainability, and community participation, but they do not serve as evidence for the findings of the present study.

The literature consulted for this study thus addresses lake assessment and monitoring, the dimensions of environmental volunteering, and institutional sustainability; it does not describe how volunteers in the Seven Lakes themselves understand clean-up participation, stewardship, and community. Addressing this gap requires an approach that examines

variation in understanding rather than measuring predefined attitudes. Phenomenography investigates the qualitatively different ways in which people experience or understand a phenomenon (Marton, 1981). Its analytic focus is on variation across accounts, not on a single universal description or on sorting participants into fixed types, and its findings are commonly represented through categories of description and an outcome space that shows how the categories relate (Åkerlind, 2012). The approach has also been applied to volunteer experiences in a local setting (Lunar, 2023).

The study is delimited to volunteers who participated in the scheduled clean-up activities at Sampaloc Lake on September 14, 21, and 28, 2025, and it does not seek statistical generalization to other stakeholders or sites. It may support locally grounded environmental learning and conservation collaboration, and it is relevant to Sustainable Development Goals (SDGs) 6, 11, 13, 14, 15, and 17, which address clean water, sustainable communities, climate action, aquatic and terrestrial ecosystems, and partnerships (United Nations, 2015). Specifically, the study sought to answer three questions: (a) What qualitatively different ways do volunteers conceive of participating in clean-up activities in the Seven Lakes? (b) How do volunteers understand environmental stewardship and their relationship to the lakes? and (c) How do volunteers conceive of community and shared responsibility for lake care? Because the study was exploratory and qualitative, no hypotheses were tested. The purpose of the study was to map volunteers' conceptions of environmental citizenship in relation to clean-up participation in the Seven Lakes of San Pablo.

Method

The study employed a qualitative phenomenographic design to examine variation in how volunteers understood environmental citizenship in the context of clean-up participation. The focus was on the conceptions expressed across participants' accounts, not on measuring attitudes or evaluating the effectiveness of the activities, and the analysis was intended to yield categories that are distinct in meaning and an outcome space that represents their relationships (Åkerlind, 2012). Accordingly, no independent or dependent variables were specified. The study was situated at Sampaloc Lake, San Pablo City, Laguna.

The participants were 33 volunteers who took part in clean-up activities held on September 14, 21, and 28, 2025. Maximum-variation sampling was used to obtain variation in age, gender, barangay, and first-time or repeat participation. These characteristics informed recruitment; they were not analytic categories in themselves.

The central data source was semi-structured interviews with the volunteers. The interview questions were designed to elicit participants' descriptions of the clean-up and their understanding of stewardship and community without suggesting preferred answers.

The analysis was qualitative and proceeded through repeated reading and comparison of the interview transcripts. The researchers identified passages relevant to the phenomenon, compared the meanings expressed across participants, and developed preliminary categories that captured qualitatively different conceptions. The categories were then reviewed against the entire dataset, refined to distinguish them clearly, and supported with verbatim excerpts. They were subsequently related in an outcome space whose ordering followed the relationships evidenced in participants' accounts rather than a presumed progression from less to more sophisticated understanding. The researchers documented their analytic decisions, discussed differing interpretations, and checked the fit between the categories and the source excerpts. No statistical treatment was applied. Ethical considerations were upheld throughout the conduct of the study.

Results and Discussion

The analysis identified four qualitatively different ways of conceiving clean-up participation and environmental citizenship. In the first, clean-up as a discrete task, participation meant collecting and removing visible waste during an organized activity. In the second, stewardship as personal responsibility, participation reflected an individual duty to avoid harming the lake and to act responsibly. In the third, community as collective care, caring for the lake was understood as a shared responsibility among residents, volunteers, organizations, and authorities. In the fourth, environmental citizenship as sustained civic participation, clean-up was one part of continuing involvement in protecting the lakes and influencing community practice. These categories form an outcome space rather than

stages through which every volunteer progresses, and they are discussed below in relation to the three research questions.

Ways of Conceiving Clean-Up Participation

The four categories differed in the scope of responsibility and the continuity of participation they expressed. In the first, volunteers understood participation primarily as completing a concrete task: removing visible waste and leaving a cleaner area. The meaning of the activity was immediate and practical, and attention centered on visible cleanliness rather than on the sources of waste, long-term maintenance, or the distribution of responsibility. The second category extended beyond the activity to individual conduct, the third shifted the focus to shared responsibility and coordinated effort, and the fourth linked immediate action and collective care to continuing civic participation. The categories describe conceptions, not types of persons, and the structure should not be read as a ladder that all volunteers climb.

These results show that the same activity carried different meanings for different volunteers, which is consistent with phenomenography's focus on variation in collective experience rather than on a single universal account (Åkerlind, 2005; Marton, 1981). The value of the outcome space lies not in identifying which volunteer is "more" environmentally responsible, but in showing which aspects of environmental citizenship are made visible or remain outside participants' understanding; an account focused on waste removal, for instance, demonstrates practical involvement while leaving longer-term accountability unspoken. The variation also fits the observation that volunteering may involve several dimensions, including values, civic engagement, learning, social connection, identity, and obligation (Schild, 2018), none of which was assumed in advance. For organizers, the implication is that a shared understanding of what a clean-up means should not be presumed. Moreover, because a single activity cannot by itself address all sources of lake degradation (Paller et al., 2021), clean-ups are better understood as one component of a broader conservation effort.

Stewardship and Relationship to the Lakes

Stewardship was most clearly expressed in the second category, in which participation was connected to an individual obligation to avoid

contributing to environmental harm. Volunteers in this category may describe the clean-up as a reminder to manage their own waste, behave responsibly near the lake, or influence family and peers through personal example. Stewardship in this conception was broader than completing the day's task, although responsibility remained centered on individual conduct. In the fourth category, stewardship extended further to include follow-through beyond a single event.

For some volunteers, then, the clean-up served as a link between a single event and everyday behavior. This is compatible with the sense of obligation and identity that Schild (2018) identified among the dimensions of environmental volunteering, although the present data do not test that relationship. The practical implication is that clean-ups can be paired with brief pre- or post-activity reflection and waste-prevention information, connecting hands-on participation to an understanding of how everyday practices affect the lake. Such an approach is consistent with the educational and social-ecological innovation directions discussed by Lunar and Eala (2023).

Community and Shared Responsibility

Community was the organizing idea of the third category, in which volunteers understood lake care as shared work. The activity mattered because people acted together and because no single volunteer or group could protect the lakes alone. Participants may refer to residents, barangay leaders, local government, schools, organizations, visitors, or lake users as stakeholders with different roles, and community was conceived as both a source of support and a necessary partner in sustained conservation. The fourth category combined this shared responsibility with awareness, communication, organizing, cooperation with local institutions, and follow-through, and it recognized that visible litter is connected to broader practices and systems.

These conceptions parallel the holistic ecosystem approach advocated for the Seven Lakes, which emphasizes stakeholder participation alongside biophysical and socioeconomic considerations (Paller et al., 2021), and they correspond to the stakeholder engagement identified as an area for attention at San Pablo Colleges (Lunar et al., 2025). Organizers can therefore strengthen coordination among volunteers, barangays, schools, local authorities, and lake organizations, and can provide clear pathways

for continued participation, such as follow-up activities, volunteer coordination, environmental information sharing, or referral of observed concerns to local offices. Such pathways may support the fourth conception without assuming that all volunteers begin with the same motivation or commitment. For the College, lake clean-ups can also serve as place-based learning about watersheds, waste management, ecosystem health, and civic responsibility, aligned with SDGs 6, 11, 13, 14, 15, and 17 (United Nations, 2015). These applications are possibilities suggested by the categories, not findings established by them.

Taken together, the four categories address the research objectives by describing how volunteers understand participation, stewardship, and community. The study was limited to volunteers who participated in scheduled activities and therefore may not represent residents who did not participate, lake users, local officials, or other stakeholders. The sample is appropriate only insofar as the interviews provided adequate variation and depth for the analytic purpose, and it does not support statistical generalization.

Conclusion

This study identified four qualitatively different conceptions of clean-up participation among volunteers in the Seven Lakes of San Pablo: clean-up as a discrete task, stewardship as personal responsibility, community as collective care, and environmental citizenship as sustained civic participation. Volunteers conceived of participation as ranging from an immediate task to continuing civic involvement, understood stewardship as a link between the clean-up and everyday personal conduct, and understood community as a shared responsibility requiring cooperation among residents, organizations, and authorities. The conceptions differ in the scope of responsibility and the continuity of participation they express, and they show that the same clean-up can carry different meanings for different volunteers. These conclusions describe variation in understanding; they are not a measure of any volunteer's level of environmental responsibility. By documenting this variation in a local setting, the study offers a basis for designing clean-ups that connect direct service with continuing community engagement.

Recommendation

Clean-up organizers and San Pablo Colleges are encouraged to pair clean-up activities with reflection, waste-prevention information, and opportunities for repeat engagement; to strengthen coordination among volunteers, barangays, schools, local authorities, and lake organizations; and to use the outcome space to guide volunteer orientations, reflection activities, and partnership discussions. Any program developed from these recommendations should be evaluated with additional evidence to determine whether it improves environmental knowledge, volunteer continuity, or collaboration.

Future research should include perspectives beyond clean-up volunteers, such as residents, lake users, barangay representatives, local officials, and community organizations, and should compare conceptions across the Seven Lakes. A longitudinal study could follow first-time and repeat volunteers to explore whether their conceptions change with continued participation, without assuming that one conception is a necessary progression toward another. Further studies may relate volunteers' conceptions to observed practices and publicly available lake-monitoring information, and program evaluations may assess participation continuity, learning, and partnership development, complementing phenomenographic research, which describes variation in understanding rather than program reach or change.

References

Åkerlind, G. S. (2005). Variation and commonality in phenomenographic research methods. Higher Education Research & Development, 24(4), 321–334. doi:10.1080/07294360500284672

Åkerlind, G. S. (2012). Variation and commonality in phenomenographic research methods. Higher Education Research & Development, 31(1), 115–127. doi:10.1080/07294360.2011.642845

Lunar, B. C. (2023). Getting a grasp of the experiences of volunteer student-teachers in Dreams Day Care Center: A phenomenographic probe.

PAPSCU Excellent Academic Research Link (PEARL) Bulletin, 3(3). Retrieved from https://ejournals.ph/article.php?id=22545

Lunar, B. C., & Eala, M. S. M. (2023). Where are we and where are we going: Educational innovation initiatives in San Pablo Colleges. Education, Sustainability & Society, 6(2), 72–75. doi:10.26480/ess.02.2023.72.75

Lunar, B. C., Eala, C. M. C., & Perez, A. D. (2025). Sustainability initiatives as drivers of institutional effectiveness: Insights from San Pablo Colleges. Journal of Interdisciplinary Perspectives, 3(5), 52–62. doi:10.69569/jip.2025.014

Marton, F. (1981). Phenomenography: Describing conceptions of the world around us. Instructional Science, 10, 177–200. doi:10.1007/BF00132516

Paller, V. G. V., Magcale-Macandog, D. B., de Chavez, E. R. C., Paraso, M. G. V., Tsuchiya, M. C. L., Campang, J. G., . . . Mendoza, S. S. (2021). The Seven Lakes of San Pablo: Assessment and monitoring strategies toward sustainable lake ecosystems. Philippine Science Letters, 14(1), 158–179. doi:10.54645/2021141DFX-14

Schild, R. (2018). Fostering environmental citizenship: The motivations and outcomes of civic recreation. Journal of Environmental Planning and Management, 61(5–6), 924–949. doi:10.1080/09640568.2017.1350144

United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. Retrieved from https://sdgs.un.org/2030agenda