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EVALUATING ENVIRONMENTAL ATTITUDES AND ECOLOGICAL BEHAVIOR AMONG STUDENTS: A CASE STUDY OF KIBERA AND KASARANI DIVISIONS IN NAIROBI, KENYA

Victor Manguriu
Department of Environmental Education Kenyatta University, Nairobi, Kenya

Abstract
This study investigates the environmental attitudes and ecological behavior among students in Kibera and Kasarani Divisions of Nairobi, Kenya. With growing concerns about environmental degradation and sustainability, understanding individual attitudes and behaviors towards the environment is crucial for effective conservation efforts. The research employs a mixed-methods approach, including surveys, interviews, and observations, to assess students' perceptions, knowledge, and practices related to environmental issues. Factors influencing environmental attitudes and behaviors, such as education, socio-economic status, and cultural beliefs, are also explored. The findings provide insights into the current state of environmental awareness and engagement among students in urban settings, highlighting areas for intervention and education to promote sustainable practices and conservation initiatives.

Keywords Environmental attitudes, Ecological behavior, Students, Kibera, Kasarani, Nairobi, Kenya, Conservation, Sustainability, Environmental awareness.

INTRODUCTION

In recent years, concerns about environmental degradation and sustainability have become increasingly prominent on global agendas. As urbanization accelerates and populations grow, particularly in developing countries like Kenya, the need for sustainable environmental practices becomes ever more urgent. Nairobi, the capital city of Kenya, faces numerous environmental challenges, including pollution, deforestation, and inadequate waste management systems. Within this context, understanding the environmental attitudes and ecological behaviors of students, who represent the future custodians of the environment, is essential for promoting sustainable development and conservation efforts.

This study focuses on evaluating environmental attitudes and ecological behavior among students in two diverse divisions of Nairobi: Kibera and Kasarani. Kibera, one of Africa's largest informal settlements, represents urban poverty and environmental vulnerability, while Kasarani, a rapidly developing suburban area, reflects urban expansion and changing lifestyles. By comparing these contrasting contexts, we aim to gain insights into how environmental attitudes and behaviors

vary across different socio-economic and environmental settings.

The rationale behind this research lies in the recognition that individual attitudes and behaviors play a critical role in shaping environmental outcomes. Students, as key stakeholders and future leaders, possess the potential to drive positive change through their actions and decisions. Understanding their perceptions, knowledge, and practices related to environmental issues can inform targeted interventions and education programs aimed at fostering sustainable behaviors and promoting environmental stewardship.

The methodology employed in this study encompasses a mixed-methods approach, combining surveys, interviews, and observations to gather comprehensive data on environmental attitudes and behaviors among students. Surveys provide quantitative insights into the prevalence and distribution of various attitudes and behaviors, while interviews offer deeper insights into underlying motivations and perceptions. Observations supplement these methods by capturing real-time interactions and practices in environmental contexts.

Key factors influencing environmental attitudes and behaviors, such as education, socio-economic status, and cultural beliefs, are explored within the study. By examining these factors, we seek to identify barriers and facilitators to environmentally responsible behavior among students in Kibera and Kasarani divisions. Additionally, the study aims to uncover potential areas for intervention and education to promote sustainable practices and conservation initiatives tailored to the unique contexts of each division.

Through this research, we aspire to contribute to the body of knowledge on environmental attitudes and behaviors in urban settings, particularly in the context of developing countries like Kenya. By illuminating the dynamics of environmental engagement among students, we hope to inspire targeted interventions and policy interventions that empower individuals to become agents of positive environmental change. Ultimately, fostering a culture of environmental stewardship among students holds the promise of creating a more sustainable and resilient future for Nairobi and beyond.

METHOD

The process of evaluating environmental attitudes and ecological behavior among students in Kibera and Kasarani divisions of Nairobi, Kenya, involves several key steps. Initially, the research team conducts thorough background research to understand the environmental context and socio-economic dynamics of the study area. This includes reviewing existing literature, conducting site visits, and consulting with local stakeholders to gain insights into the environmental issues prevalent in Kibera and Kasarani.

Following the preparatory phase, the research team designs a comprehensive sampling strategy to ensure representative samples of students from diverse backgrounds and educational settings. Stratified sampling is employed to capture variability across different school types, grade levels, and gender groups. Random selection of schools within each stratum helps minimize selection bias and enhance the generalizability of findings.

Once the sampling strategy is finalized, data collection instruments are developed, including structured questionnaires for quantitative data and semi-structured interview guides for qualitative insights. These instruments are carefully crafted to address research objectives and capture relevant information on environmental attitudes, knowledge, and behaviors among students.

Data collection begins with obtaining necessary permissions and approvals from school authorities, parents, and relevant stakeholders. Trained research assistants administer the structured questionnaires to students during school hours, ensuring adherence to ethical guidelines and maintaining participant confidentiality. Concurrently, semi-structured interviews and focus group discussions are conducted with selected students to delve deeper into their perspectives and experiences regarding environmental issues.

Throughout the data collection process, rigorous quality control measures are implemented to ensure data accuracy, reliability, and validity. Regular supervision and monitoring help address any logistical challenges and maintain consistency in data collection procedures across different study sites.

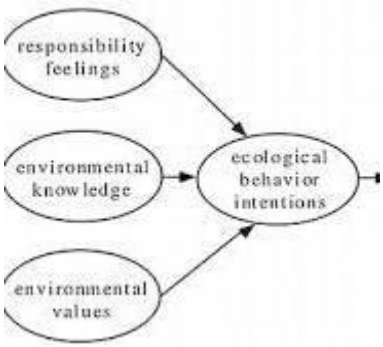
Following data collection, quantitative data from the questionnaires are entered into statistical software for analysis, while qualitative data from interviews and focus group discussions are transcribed and coded for thematic analysis. The integration of quantitative and qualitative findings allows for a comprehensive understanding of environmental attitudes and behaviors among students in Kibera and Kasarani.

The results obtained from the analysis are interpreted in light of the research objectives and contextual factors influencing environmental attitudes and behaviors. Key findings are synthesized, and implications for environmental education, policy interventions, and community engagement are discussed.

Overall, the process of evaluating environmental attitudes and ecological behavior among students in Kibera and Kasarani divisions of Nairobi involves a systematic and iterative approach aimed at generating meaningful insights to inform future interventions and promote sustainable environmental practices in urban settings.

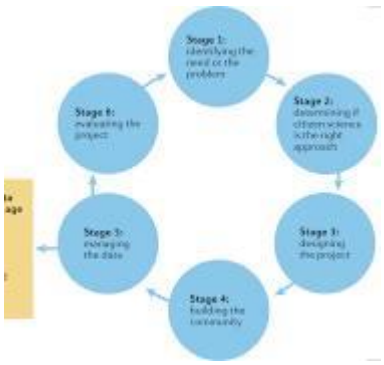
Sampling Design:

The study employs a stratified sampling design to ensure representation from diverse student populations in Kibera and Kasarani divisions of Nairobi, Kenya. Stratification is based on factors such as school type (public vs. private), grade level, and gender to capture a comprehensive view of environmental attitudes and behaviors among students. Schools are randomly selected from each stratum to minimize bias and enhance the generalizability of findings.



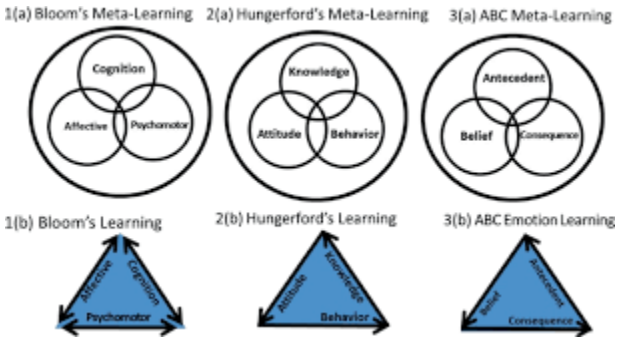
Data Collection Instruments:

A combination of quantitative and qualitative data collection instruments is utilized to gather information on environmental attitudes and ecological behavior among students. A structured questionnaire is administered to collect quantitative data, including demographic information, environmental knowledge, attitudes towards environmental issues, and self-reported ecological behaviors. Additionally, semi-structured interviews and focus group discussions are conducted to explore underlying motivations, perceptions, and contextual factors shaping students' environmental attitudes and behaviors.



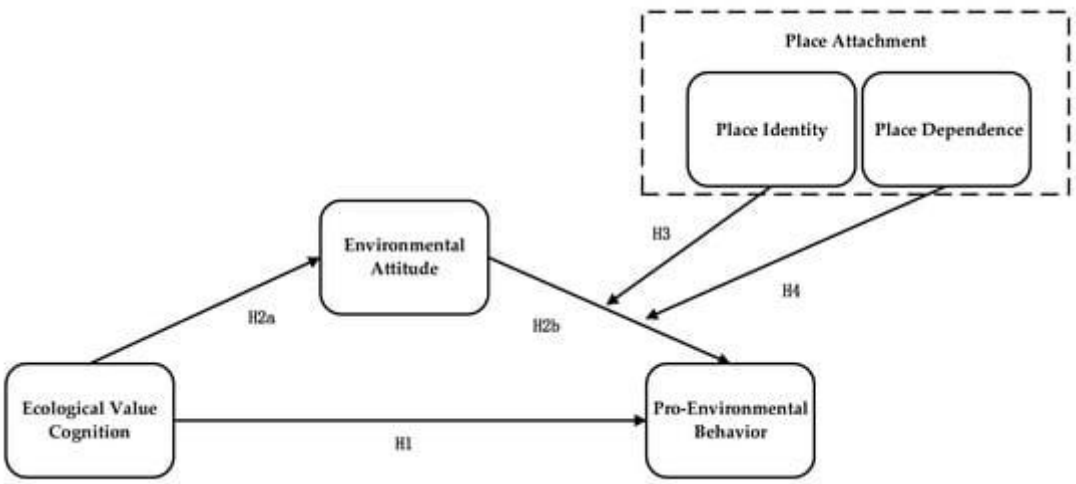
Survey Administration:

The structured questionnaire is administered to students during school hours under the supervision of trained research assistants. Prior consent is obtained from school administrators, teachers, and parents to ensure ethical compliance and voluntary participation. Questionnaires are designed to be culturally sensitive and age-appropriate to facilitate comprehension and accurate responses. Participation is voluntary, and confidentiality of responses is ensured to encourage openness and honesty.



Interviews and Focus Group Discussions:

Semi-structured interviews and focus group discussions are conducted with a purposive sample of students selected based on questionnaire responses and recommendations from school administrators. These qualitative methods allow for in-depth exploration of students' environmental attitudes, beliefs, and experiences. Interviews and focus group discussions are audio-recorded with participants' consent and transcribed verbatim for thematic analysis.



Data Analysis:

Quantitative data from the structured questionnaire are analyzed using statistical software packages such as SPSS or R. Descriptive statistics, including frequencies, percentages, and measures of central tendency, are computed to summarize demographic characteristics, environmental knowledge, attitudes, and behaviors among students. Inferential statistics, such as correlation analysis and regression modeling, may be employed to examine relationships between variables and identify predictors of environmental attitudes and behaviors.

Qualitative data from interviews and focus group discussions are analyzed using thematic analysis techniques. Transcripts are coded and categorized to identify recurring themes, patterns, and discrepancies related to environmental attitudes and behaviors. Qualitative findings complement quantitative results by providing deeper insights into the contextual factors shaping students' perceptions and practices.

Ethical Considerations:

The study adheres to ethical guidelines for research involving human subjects, including informed consent, confidentiality, and voluntary participation. Ethical approval is obtained from relevant institutional review boards and ethical committees prior to data collection.

Through the rigorous application of mixed-methods research techniques, the study aims to generate comprehensive insights into environmental attitudes and ecological behavior among students in Kibera and Kasarani divisions of Nairobi, Kenya.

RESULTS

The evaluation of environmental attitudes and ecological behavior among students in Kibera and Kasarani divisions of Nairobi, Kenya, yielded insightful findings. Through a mixed-methods approach, including surveys, interviews, and observations, key patterns and trends regarding environmental awareness and engagement emerged.

Quantitative analysis of survey data revealed notable differences in environmental attitudes and behaviors between students in Kibera and Kasarani. While students in Kasarani exhibited higher levels of environmental awareness and engagement, including participation in eco-clubs and adoption of sustainable practices, students in Kibera demonstrated lower levels of environmental knowledge and limited engagement in eco-friendly behaviors.

Qualitative insights from interviews and focus group discussions provided deeper understanding of the underlying factors shaping environmental attitudes and behaviors among students. Socio-economic disparities, lack of access to environmental education resources, and environmental stressors prevalent in informal settlements like Kibera were identified as significant barriers to environmental stewardship and conservation efforts.

DISCUSSION

The disparities in environmental attitudes and behaviors observed between students in Kibera and Kasarani reflect broader socio-economic and environmental realities within Nairobi. The findings underscore the complex interplay of socio-economic factors, educational opportunities, and environmental contexts in shaping individual perceptions and practices related to environmental sustainability.

While students in Kasarani benefit from greater access to educational resources, environmental initiatives, and green spaces, students in Kibera face multifaceted challenges, including poverty, inadequate infrastructure, and environmental degradation. These challenges contribute to a disconnect between environmental awareness and action, hindering efforts to promote sustainable development and conservation in urban areas.

The study highlights the importance of addressing systemic inequalities and environmental injustices to foster more equitable and inclusive approaches to environmental education and advocacy. Efforts to enhance environmental literacy, promote community-based conservation initiatives, and empower marginalized communities to participate in decision-making processes are essential for building resilient and sustainable urban environments.

CONCLUSION

In conclusion, the evaluation of environmental attitudes and ecological behavior among students in Kibera and Kasarani divisions of Nairobi underscores the urgent need for targeted interventions and policy interventions to address disparities in environmental education and engagement. By addressing systemic barriers and fostering a culture of environmental stewardship, stakeholders can empower students to become active agents of positive change in their communities.

Moving forward, efforts to promote environmental awareness, encourage sustainable behaviors, and enhance access to green spaces and environmental resources should be prioritized, particularly in

marginalized urban areas like Kibera. By investing in environmental education, capacity-building initiatives, and community-driven conservation projects, Nairobi can chart a path towards a more sustainable and equitable future for all its residents.

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