



FROM CLASSROOM TO HOME: SUSTAINABLE HOUSEHOLD PRACTICES AMONG SENIOR HIGH SCHOOL LEARNERS

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ABSTRACT

This phenomenological study explored the lived experiences, coping strategies, and insights of senior high school learners regarding sustainable household practices in Paquibato District, Davao City. Specifically, it aimed to determine how learners practice sustainability within their households, cope with sustainability-related challenges, and develop environmental insights from these experiences. The study employed a qualitative phenomenological design. Data were gathered through semi-structured interviews and focus group discussions with selected senior high school learners and analyzed using thematic analysis. The findings revealed that learners practiced sustainability through waste segregation, water conservation, energy efficiency, and organic gardening. Their behaviors were shaped by family guidance, environmental awareness, household discipline, and practical daily routines. Learners also coped with sustainability challenges through adaptive resource management, recycling practices, and community and family support. Moreover, participants developed insights regarding environmental responsibility, resource conservation, and sustainable living. The study recommends strengthening sustainability education through experiential learning, community participation, and household-based environmental practices.

KEYWORDS: Sustainable Household Practices, Environmental Awareness, Resource Conservation, Sustainability Education, Senior High School Learner

I. INTRODUCTION

The Problem and its Setting

In the face of global environmental challenges, the need to promote sustainability has become a pressing concern. Senior High School students, as future leaders and active participants in community development, play a significant role in addressing environmental issues. In Paquibato District, Davao City, where rural communities heavily rely on natural resources for their livelihood, the integration of sustainable household practices into daily routines presents an opportunity to cultivate eco-friendly livelihood programs.

Household practices such as waste segregation, water conservation, energy efficiency, and organic gardening are simple yet effective ways to promote sustainability. When these practices are consistently implemented, they not only contribute to environmental protection but also offer potential opportunities for livelihood programs that support eco-friendly entrepreneurship. Sustainability has emerged as a global priority in response to the escalating environmental issues such as climate change, pollution, and resource depletion. The promotion of sustainable practices has been recognized as a key solution to mitigate the adverse effects of these challenges. The education sector plays a crucial role in instilling environmental consciousness and fostering responsible behavior among learners. Senior high school students, particularly those in rural communities like Paquibato District, are in a unique position to adopt and promote sustainable household practices that can positively impact their immediate environment.

In Bangladesh, Canada, and Germany, the urgent need for increased youth participation in environmental advocacy is crucial as stated in the Youth for Climate Action Report (2023). Despite growing awareness, senior high school students face barriers such as limited access to climate education, insufficient government support for youth-led initiatives, and financial constraints in organizing sustainability projects (United Nations, 2023). In regions like Australia and Southeast Asia, the lack of standardized curricula hinders students' ability to engage in environmental problem-solving. The calls for revised educational frameworks that equip youth with practical sustainability skills (Springer, 2024). In Singapore and Kenya, the role of youth leadership in achieving the Sustainable Development Goals (SDGs) was highlighted in MDPI's Youth Leadership in Sustainable Development (2025). While senior high school students are increasingly engaged in sustainability efforts, systemic barriers such as inadequate institutional support, restricted funding, and limited mentorship, hamper their effectiveness (MDPI, 2025).

In Dasmariñas City, Cavite, Philippines, senior high school students have inconsistencies in their understanding and application of sustainability principles. This means that while students express concern about climate issues, many lack access to sustainability-focused coursework (Punzalan, 2021). In Gloria, Mindoro Oriental, despite the active participation of senior high school students in sustainability efforts such as proper waste disposal, energy conservation, and tree-planting, gaps remain in their understanding of the interconnected nature of these practices with larger environmental issues (Toledo & Lingon, 2024). Similarly, in Ilocos Norte, there remains a significant gap in students' comprehension of the broader implications and practical applications of sustainability principles despite efforts to integrate Sustainable Development Goals (SDGs) into senior high school education (Padilla et al., 2025).



In Davao City, senior high school students play a vital role in promoting sustainable household practices, with a particular emphasis on solid waste management through the principles of Reduce, Reuse, and Recycle (3Rs). While awareness of these sustainability concepts is growing, challenges remain in ensuring consistent implementation at home. Many students understand the importance of minimizing waste, yet accessibility to recycling facilities and family engagement in waste segregation can affect their ability to practice these habits effectively (Ecoteneo, 2022).

Despite the existence of national policies and the growing body of research on sustainability and livelihood development, significant gaps remain in understanding how sustainable household practices are actually implemented by Senior High School students in rural. Most existing studies focus on urban settings where access to infrastructure, environmental 5 programs, and institutional support is relatively strong, leaving rural contexts underrepresented in sustainability research.

In Paquibato District, students often face challenges such as limited access to waste management facilities, inconsistent practice of waste segregation and recycling, minimal adoption of water and energy conservation measures, and lack of exposure to sustainable livelihood initiatives. Although sustainability concepts are introduced in the school curriculum, there is limited empirical evidence on how effectively students translate this knowledge into daily household practices and how these practices can be harnessed for eco-friendly livelihood development. This gap in localized, context-specific research limits educators, policymakers, and community leaders' ability to design interventions responsive to the realities of rural students. Hence, there is a clear need for a focused investigation into the sustainable household practices of Senior High School students in the Paquibato District and their potential role in promoting sustainable, livelihood-oriented community development.

This study contributes to the academic discourse on environmental sustainability and livelihood development by offering empirical data on the sustainable household practices of senior high school students in rural communities. It provides valuable insights into the role of education in promoting eco-friendly practices and serves as a reference for educators, policymakers, and community leaders in designing programs that integrate sustainability into livelihood initiatives. The findings of this study can also serve as a basis for future research on sustainable development in rural areas.

Statement of the Problem

Specifically, the study offered answers to the following research questions:

1. What are the experiences of the students in terms of sustainable household practices?
2. What are the coping strategies of the students in terms of sustainable household practices?
3. What are the insights of the students in terms of sustainable household practices?

Objectives of the Study

This study investigated the experiences of the students in terms of sustainable household practices. Specifically, it:

- 1) explored the of the students in terms of sustainable household practices,
- 2) identified the coping strategies of the students in terms of sustainable household practices,
- 3) examined the insights of the students in terms of sustainable household practices.

II. METHODOLOGY

Research Design

This study utilized a qualitative research design, specifically anchored on a phenomenological approach. The purpose of this design was to explore and describe the lived experiences of Senior High School students in Paquibato District, Davao City, regarding their engagement in sustainable household practices. Through this approach, I was able to uncover how these daily environmental behaviors shaped the students' perspectives, coping strategies, and potential contributions to eco-friendly livelihood programs.

The phenomenological design allowed me to gain deeper insights into the meanings and values that students attached to their household practices, particularly in areas such as waste management, energy conservation, water efficiency, and organic gardening. By focusing on the participants' personal experiences, I generated rich, detailed narratives that could not be captured through quantitative means. This research design was appropriate for addressing the study's objectives, as it emphasized depth over breadth, prioritized the participants' voices, and supported the identification of emerging themes that could guide future livelihood development efforts rooted in sustainability.

Participants

The respondents of this study consisted of ten (10) Senior High School students, regardless of gender, who were enrolled in Grades 11 and 12 under the Technical-Vocational-Livelihood (TVL) strand in selected schools within Paquibato District, Davao City. For this study, a sample size of ten (10) participants was chosen. This number directly aligns with the methodological recommendations of Creswell (2023), who suggests that a sample size ranging between 3 to 25 participants is sufficient for a phenomenological study aiming to understand shared lived experiences. Because the participant group is highly homogenous which are composed specifically



of students engaging in sustainable household practices, a smaller, purposeful sample is appropriate. This size ensures that the researcher can extract rich, deep, and evocative insights from each student without sacrificing data quality. Furthermore, this volume complies with qualitative principles of data saturation, as established literature shows that thematic redundancy regarding everyday environmental habits is typically reached within 6 to 12 qualitative interviews. Moreover, the participants were required to reside with their parents or guardians, as this living arrangement ensured their direct exposure and active involvement in household activities where sustainable practices were commonly observed and performed.

To qualify as participants, the students met the following inclusion criteria: (1) they were officially enrolled as Grade 11 or Grade 12 TVL students in selected schools; (2) they were currently living with family members or guardians; (3) they were actively engaged in household responsibilities such as waste segregation, water conservation, energy-saving practices, or organic/backyard gardening; and (4) they were willing to share their experiences, insights, and coping strategies related to sustainable household practices. These criteria ensured that the participants possessed direct and relevant experiences that provided rich and meaningful data for the study.

Data Gathering Procedure

This research underwent a structured process to ensure systematic and ethical data collection. I first requested formal permission from the Dean of the Graduate School, Dr. Nelia B. Aga, to conduct the study. Upon receiving the dean's approval, I was endorsed to the Schools Division Superintendent of Davao City Division to request authorization to carry out the study in selected senior high schools offering the Technical-Vocational-Livelihood (TVL) strand in Paquibato District.

Once the division office approved the request, I coordinated with the school principals to arrange interview schedules with student participants during their vacant periods or designated time slots to minimize disruption to academic activities.

Upon approval of the interview protocol, I selected the respondents through purposive sampling. This technique allowed the deliberate inclusion of students who met specific criteria, such as enrollment in the TVL strand, residence in the local area, and direct involvement in household tasks related to sustainability.

Prior to the interviews, I conducted an orientation session with the selected participants to explain the objectives of the study, their role in the research, the voluntary nature of participation, and the measures taken to ensure confidentiality. I obtained written informed consent from all participants.

The data collection primarily involved semi-structured, one-on-one interviews guided by a validated interview protocol. Each interview lasted between 30 to 45 minutes and was conducted in a quiet and comfortable environment, either face-to-face or via online platforms when necessary. With the respondents' consent, I audio-recorded all interviews for accuracy, and I also took field notes during the sessions.

After the interviews, I transcribed the recorded data verbatim and subjected them to thematic analysis to identify emerging patterns and insights. This process allowed me to draw meaningful conclusions about students' sustainable household practices and their implications for the development of eco-friendly livelihood programs.

Data Analysis

The data gathered from the interviews were analyzed using thematic analysis, a widely used method in qualitative research that focused on identifying, analyzing, and interpreting patterns of meaning within the data. After the interviews were transcribed verbatim, I began by reading and re-reading the transcripts to become thoroughly familiar with the content. This process allowed me to immerse myself in the data and gain an initial understanding of recurring ideas and experiences shared by the respondents.

Following familiarization, I proceeded to generate initial codes by systematically labeling significant features of the data that were related to the research questions. These codes were then reviewed and organized into broader themes that captured the essence of the participants' lived experiences regarding sustainable household practices. Special attention was given to identifying responses that revealed experiences, coping strategies, challenges, and personal insights, as well as perspectives on how these practices could be translated into eco-friendly livelihood programs.

The emerging themes were reviewed and refined to ensure that they accurately reflected the data and remained coherent, distinctive, and relevant to the study's objectives. Each theme was then clearly defined and named, and meaningful quotes from the participants were included to support the findings. Throughout the process, I maintained reflexivity by being mindful of personal biases that may have influenced interpretation.

III. RESULTS AND DISCUSSION

Experiences of the Students with Sustainable Household Practices

The study identified four major themes that describe the experiences of senior high school learners regarding sustainable household practices: waste segregation, water conservation, energy efficiency, and organic gardening. These themes demonstrate how



learners develop environmental responsibility through daily household routines, family participation, environmental awareness, and practical engagement in sustainability-related activities. The findings suggest that sustainable practices are shaped not only by individual willingness but also by family influence, resource availability, community participation, and learners' understanding of environmental responsibility.

Waste segregation emerged as one of the most common sustainable practices experienced by the participants. Learners described waste segregation as a routine household responsibility that involves separating biodegradable and non-biodegradable waste, composting organic materials, and participating in environmentally responsible disposal practices. However, participants also reported difficulties in properly classifying and segregating certain types of waste, particularly when guidelines and systems were unclear. Their experiences further revealed that family guidance, community participation, and the availability of waste management facilities significantly influence the consistency and effectiveness of segregation practices. These findings indicate that while learners demonstrate awareness of proper waste management, continuous environmental education and community support remain essential in strengthening waste segregation behaviors.

Another important theme that emerged was water conservation. Participants shared that conserving water has become an integral part of their daily household routines through practices such as limiting water use, reusing water for household purposes, collecting rainwater, and following family-imposed conservation habits. Learners emphasized that these behaviors were largely developed through parental guidance, household discipline, and practical adjustments to resource availability. In addition, many participants expressed awareness of water scarcity and the importance of conserving water for future generations. These experiences suggest that water conservation is primarily learned through routine household practices and reinforced by growing environmental consciousness and a sense of responsibility toward sustainable resource management.

Energy efficiency also emerged as a significant aspect of learners' sustainable household experiences. Participants described engaging in electricity-saving practices such as turning off lights when not in use, unplugging appliances, minimizing unnecessary energy consumption, and utilizing energy-efficient technologies. These behaviors were strongly influenced by family reminders, awareness of electricity costs, and concern for reducing household expenses. Beyond financial considerations, learners also recognized that conserving energy contributes to environmental protection and sustainability. The findings indicate that energy-efficient behaviors are developed through daily household discipline and strengthened by increasing awareness of both economic and environmental benefits.

Organic gardening was likewise identified as a meaningful sustainable household practice among the participants. Learners described gardening as a family-centered activity that promotes food production, environmental care, and responsible resource utilization. Through parental guidance and shared household participation, they learned gardening techniques, composting practices, rainwater use, and environmentally friendly methods of food cultivation. Participants also recognized the benefits of organic gardening in improving household food security, reducing expenses, and supporting healthier lifestyles. Furthermore, gardening experiences enhanced their appreciation of environmental sustainability by encouraging responsible use of natural resources and fostering ecological awareness. These findings demonstrate that organic gardening serves as both a practical livelihood activity and a valuable avenue for developing environmental responsibility.

Overall, the experiences of senior high school learners reveal that sustainable household practices are deeply embedded in everyday life through household routines, family guidance, and active participation in environmentally responsible activities. The findings indicate that waste segregation, water conservation, energy efficiency, and organic gardening collectively contribute to the development of environmental awareness, discipline, and sustainable behavior among learners. More importantly, these practices demonstrate that sustainability is not only acquired through formal instruction but also through lived experiences, family influence, and continuous engagement in household and community-based environmental activities.

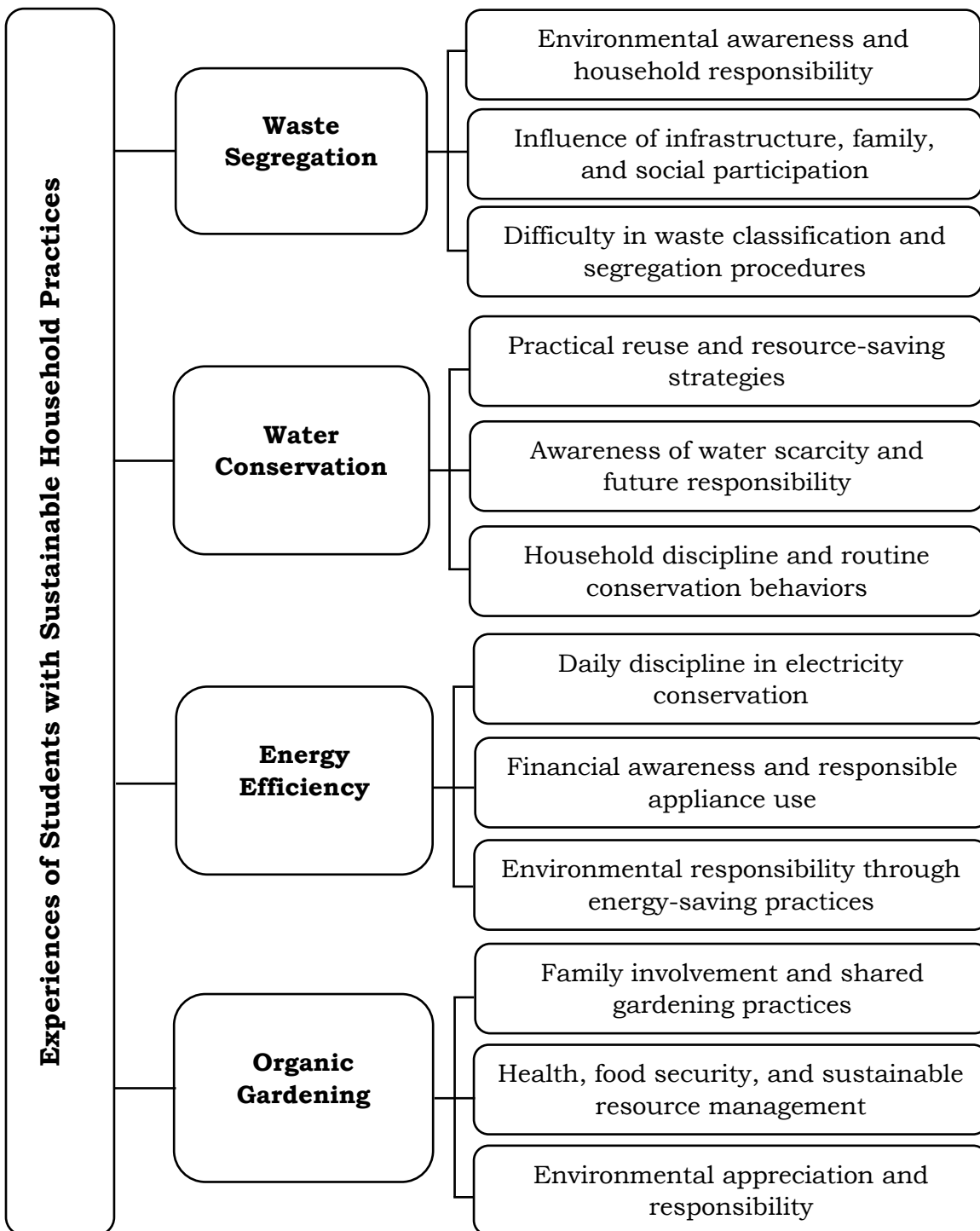


Figure 1. Experiences of Students with Sustainable Household Practices



Coping Strategies of the Students in terms of Sustainable Household Practices

This section presents the coping strategies employed by senior high school learners in managing sustainable household practices amidst various environmental, economic, and household-related challenges. The participants' narratives reveal how learners adapt to constraints such as limited resources, financial difficulties, insufficient environmental knowledge, and household limitations through practical decision-making, habit formation, and social support mechanisms. These experiences demonstrate that sustainability is not merely a matter of environmental awareness but also a process of continuously adjusting behaviors and utilizing available resources to maintain environmentally responsible practices within everyday life.

The analysis generated three major themes: adaptive resource management, behavioral adjustments, and community and family support in sustainability. These themes illustrate how learners navigate sustainability challenges through resourcefulness, self-regulation, and collaborative support systems.

The first theme, adaptive resource management, highlights learners' ability to maximize limited household resources while minimizing waste. Participants described practical strategies such as reusing water, conserving electricity, recycling materials, and carefully planning household resource consumption. These experiences indicate that sustainability practices are closely linked to household survival strategies and economic realities, where learners develop resourcefulness by extending the use of available materials and reducing unnecessary consumption. The findings suggest that adaptive resource management enables learners to balance environmental responsibility with the practical demands of daily life.

The second theme, behavioral adjustments, focuses on the development of sustainable habits and routines that help learners cope with household resource limitations. Participants emphasized forming conservation habits, regulating the timing and frequency of resource use, and adopting resource-efficient practices in everyday activities. Through repeated exposure and consistent practice, learners gradually internalized sustainability behaviors such as conserving water and electricity, using reusable materials, and minimizing waste. These findings demonstrate that sustainable living is strengthened when environmental awareness is translated into habitual actions and structured routines that become part of learners' daily lifestyles.

The third theme, community and family support in sustainability, emphasizes the role of social relationships in reinforcing environmentally responsible behaviors. Participants highlighted the influence of family members, peers, teachers, and community initiatives in providing guidance, motivation, and opportunities to practice sustainability. Family modeling, school-based environmental activities, and community programs served as important sources of encouragement and learning. The findings indicate that sustainability practices are more effectively sustained when learners receive continuous support and reinforcement from the social environments in which they live and interact.

Overall, the coping strategies of senior high school learners reveal that sustainability is maintained through a combination of adaptive resource management, behavioral adjustments, and strong social support systems. Learners demonstrate resilience and environmental responsibility by finding practical ways to conserve resources, developing sustainable habits, and drawing support from family, school, and community networks. These findings underscore the importance of fostering both individual initiative and collective participation in promoting sustainable household practices and long-term environmental stewardship.

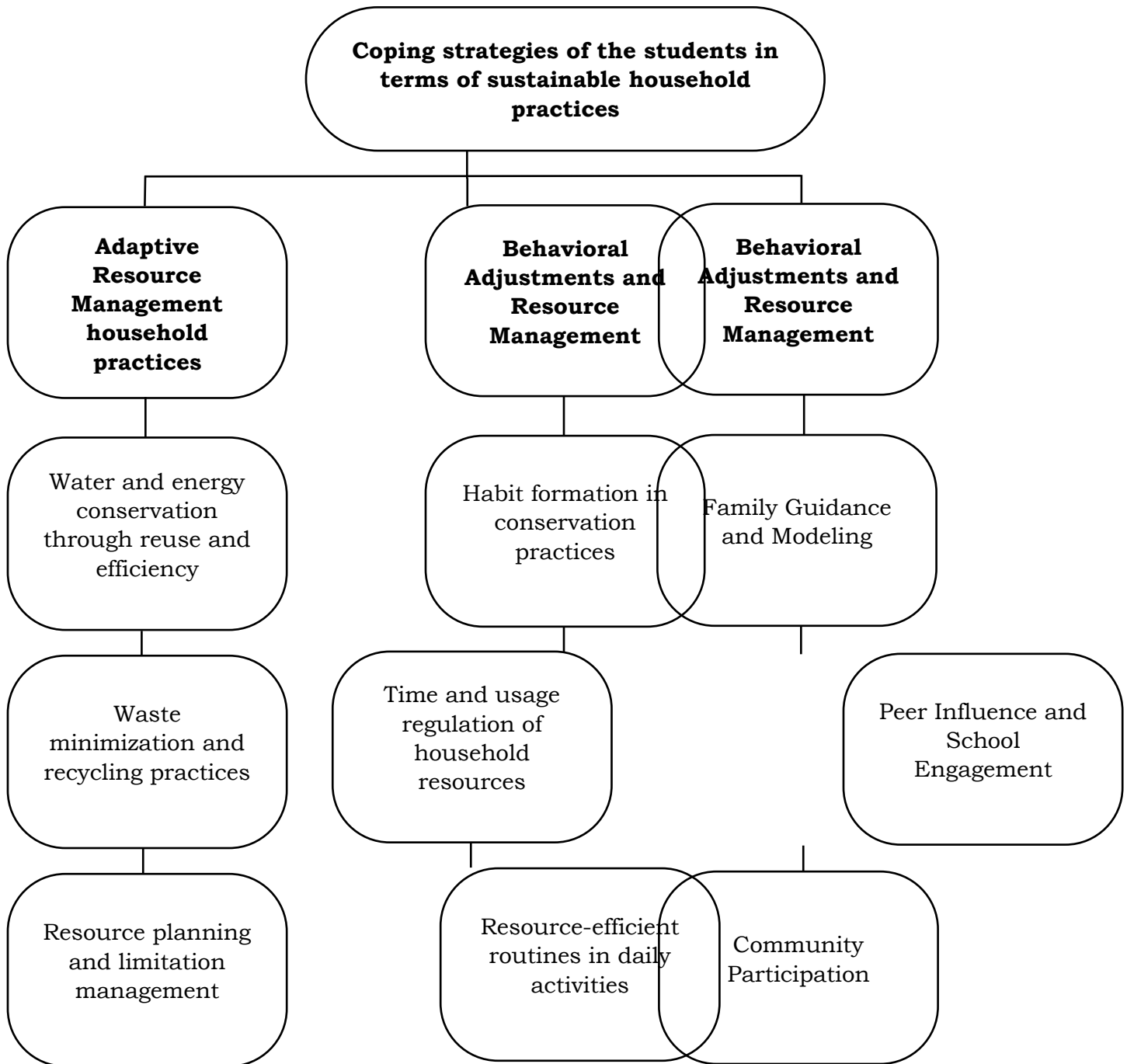


Figure 2. Coping strategies of the students in terms of sustainable household practices.

**Insights of the Students in terms of Sustainable Household Practices**

The analysis generated three major themes: behavioral and knowledge-based strategies, community and family support in coping, and resource planning and strategic use. These themes illustrate how learners translate environmental awareness into practical actions and develop sustainable behaviors through continuous engagement with their households and communities.

The first theme, behavioral and knowledge-based strategies, highlights learners' conscious efforts to apply environmental knowledge in their everyday lives. Participants described various conservation practices such as reducing water and electricity consumption, reusing available resources, and implementing efficient household routines. These experiences demonstrate that sustainability is strengthened when environmental awareness is transformed into consistent behaviors that promote responsible resource use and environmental protection. The findings suggest that learners develop eco-conscious habits through practical experiences that reinforce the value of conservation and responsible decision-making.

The second theme, community and family support in coping, emphasizes the role of social relationships in strengthening sustainable behaviors. Participants acknowledged the influence of parents, family members, peers, teachers, and community initiatives in shaping their environmental practices. Guidance from family members, participation in school activities, and involvement in community-based environmental programs provided learners with motivation, knowledge, and opportunities to practice sustainability. These findings indicate that environmental responsibility is more effectively developed when learners are supported by collaborative and socially reinforcing environments.

The third theme, resource planning and strategic use, focuses on learners' deliberate efforts to manage household resources efficiently and sustainably. Participants described planning household consumption, monitoring resource use, regulating daily activities, and maximizing alternative resources to minimize waste and promote conservation. These experiences reveal that sustainability requires not only awareness but also careful planning, self-discipline, and adaptive decision-making. The findings suggest that strategic resource management enables learners to address household limitations while maintaining environmentally responsible practices.

Overall, the insights of senior high school learners demonstrate that sustainable household practices are shaped by the interaction of environmental awareness, social support, and responsible resource management. Through conservation behaviors, family and community engagement, and strategic planning, learners develop practical skills and values that promote long-term environmental responsibility. These findings underscore the importance of nurturing sustainability through both individual action and collective participation, enabling learners to become more environmentally conscious and responsible members of their households and communities.

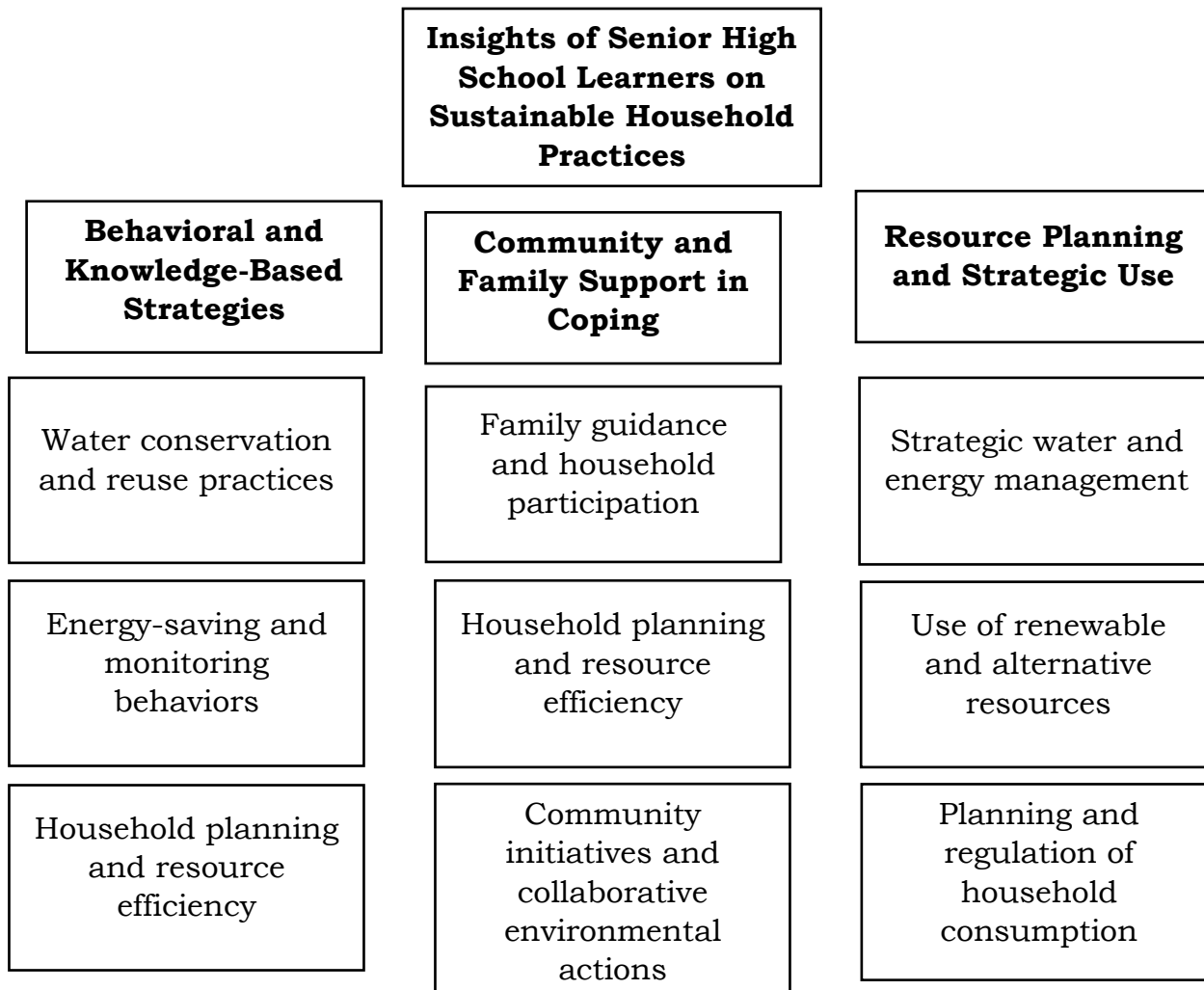


Figure 3. Insights of Senior High School Learners on Sustainable Household Practices

IV. IMPLICATIONS AND RECOMMENDATIONS

Implications

Through the analysis of participants' lived experiences, coping strategies, and insights, the study identified key themes that reflect students' environmental awareness, adaptive behaviors, and commitment to sustainability. The findings are presented according to the specific research questions that guided the study.

1. The findings revealed that senior high school students actively engage in sustainable household practices through their daily routines and responsibilities. Participants demonstrated environmental awareness by conserving water and electricity, practicing waste segregation, reusing materials, and participating in environmentally responsible activities. These experiences reflect the integration of sustainability principles into their everyday lives and household decision-making processes.

2. The study found that students employ various coping strategies to sustain environmentally responsible practices despite household limitations and resource constraints. These strategies include careful resource management, deliberate planning, regulation of household consumption, utilization of alternative resources, and the development of conservation habits. Their resourcefulness, adaptability, and discipline enabled them to overcome challenges and maintain sustainable practices within their households.

3. The findings showed that students perceive sustainability as both an environmental responsibility and a practical necessity. They recognized the significant influence of family guidance, peer support, school involvement, and community participation in fostering environmental awareness and sustainable behavior. Students emphasized that environmental responsibility is best developed through collective efforts and shared experiences, highlighting the importance of collaboration in promoting sustainability and community resilience.



Overall, the study affirmed that students' experiences, coping strategies, and insights collectively contribute to the development of eco-conscious attitudes and sustainable living practices, providing a strong foundation for eco-friendly livelihood programs that support environmental preservation and community resilience.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are offered:

1. Teachers should continue integrating environmental education and sustainability concepts into classroom instruction and practical learning activities. Activities such as recycling projects, waste segregation campaigns, school gardening, and energy conservation programs may further strengthen learners' environmental awareness and eco-friendly behaviors.
2. Schools should provide more opportunities for experiential and community-based environmental learning through clean-up drives, tree planting activities, sustainability campaigns, and collaborative environmental programs. Strengthening school-community partnerships may help learners apply sustainability concepts in real-life contexts and encourage active environmental participation.
3. Parents and family members should continue modeling sustainable household behaviors and guiding learners in practicing resource conservation, waste management, and environmentally responsible routines within the home. Consistent family involvement may strengthen learners' discipline, awareness, and long-term commitment to sustainable living.
4. Community leaders and local government units should strengthen environmental programs and community initiatives that promote sustainability practices among youth and households. Programs focusing on recycling, water conservation, renewable energy use, and environmental awareness campaigns may further support learners in practicing eco-friendly behaviors beyond the school and household setting.
5. Curriculum developers and educational policymakers should enhance the integration of sustainability education within the curriculum by emphasizing environmental responsibility, resource management, conservation practices, and practical sustainability skills. Schools should also be provided with sufficient environmental learning resources and training opportunities that support sustainability education initiatives.
6. Future researchers should conduct further studies regarding sustainable household practices among learners in different communities and educational settings. Researchers may also explore additional factors influencing environmental behavior, sustainability awareness, and eco-conscious decision-making among students and households.

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