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INTERNATIONAL JOURNAL OF EDUCATION AND SOCIAL SCIENCES

RESEARCH ARTICLE

LEVEL OF AWARENESS OF COLLEGE "STUDENTS TOWARD CLIMATE CHANGE AND ENVIRONMENTAL PROTECTION"

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Article History
Received: August 31, 2026
Revised: September 7, 2026
Published: September 30, 2026

ABSTRACT

This study quantitatively examined the level of awareness of college students toward climate change and environmental protection. A quantitative research design was employed in Dr. Francisco L. Calingasan Memorial Colleges Foundation, Inc. to gather measurable data that reflect students' knowledge, attitudes, and practices related to environmental issues. The researchers used a structured questionnaire as the main data gathering tool, allowing for the collection of numerical data that could be statistically analyzed. This approach provided an objective basis for identifying patterns, relationships, and levels of awareness among the respondents. The results of the quantitative analysis were then used to draw conclusions and provide recommendations for promoting environmental awareness among college students.

INTRODUCTION

With its effects on ecosystems, economies, and human health worldwide, climate change has become one of the most important global concerns of the twenty-first century. The importance of education, especially for young people, in encouraging environmental stewardship and sustainable practices has grown as the effects of climate change become more apparent. As future decision-makers and leaders, students need to be prepared with the skills

and mindset needed to tackle environmental issues and help lessen the effects of climate change.

Gaining insight into students' awareness and attitudes regarding environmental protection and climate change can help determine how well educational initiatives and systems are promoting environmental consciousness. It also aids in locating knowledge, perception, and engagement gaps that require curriculum and policy development.

Recognizing their potential as change agents in the quest for a more sustainable future, this study intends to investigate students' current awareness of and attitudes toward environmental protection and climate change.

LITERATURE REVIEW

This chapter presents the related literature and studies gathered from books, journals, theses, dissertations, and online sources to provide a deeper understanding of the study. It also establishes the foundation and framework for analyzing the level of awareness of college students toward climate change and environmental protection.

Climate Change Awareness

Climate change awareness refers to the level of knowledge and understanding individuals have about the causes, effects, and possible solutions to climate change. According to the Intergovernmental Panel on Climate Change (IPCC), climate change is primarily caused by human activities such as burning fossil fuels, deforestation, and industrial emissions, which lead to increased greenhouse gases in the atmosphere. Studies show that awareness among students varies depending on their exposure to environmental education, media, and personal experiences. Many college students are aware of climate change as a global issue; however, their understanding of its scientific concepts and long-term impacts is often limited. This suggests that while awareness exists, deeper comprehension needs to be strengthened.

Environmental Protection Awareness

Environmental protection awareness involves understanding the importance of conserving natural resources and engaging in sustainable practices. According to the Department of Environment and Natural Resources (DENR), environmental awareness is essential in promoting responsible behavior such as waste segregation, recycling, and energy conservation. Research indicates that students who are exposed to environmental programs and activities are more likely to develop positive attitudes and practices toward environmental protection. However, some students still lack active participation despite being aware of environmental issues, highlighting a gap between awareness and action.

Role of Education in Climate Change Awareness

Education plays a vital role in shaping students' awareness and attitudes toward climate change. Schools and universities serve as key institutions in promoting environmental literacy. According to UNESCO, integrating climate change education into the curriculum helps students understand environmental issues and develop critical thinking skills. Formal education, including subjects related to science and social studies, enhances students' understanding of climate change. In addition, extracurricular activities such as seminars, workshops, and environmental campaigns further strengthen awareness. This implies that continuous educational efforts are necessary to improve students' knowledge and engagement.

Influence of Media and Technology

Media and technology significantly influence students' awareness of climate change. Social media platforms, news outlets, and online resources provide accessible information about environmental issues. According to recent studies, students who frequently access digital media are more likely to be aware of climate change and its effects. However, the spread of misinformation online can also affect students' understanding. Therefore, it is important for students to develop critical thinking skills to evaluate reliable sources of information.

Students' Attitudes and Practices Toward Environmental Protection

Awareness alone does not guarantee action. Studies reveal that although students express concern about climate change, not all engage in environmentally responsible behaviors. This phenomenon is known as the attitude behavior gap. Some students practice environmental protection through simple actions such as reducing plastic use, conserving energy, and participating in clean-up drives. However, others show limited involvement due to lack of motivation, resources, or opportunities. This indicates the need for programs that encourage active participation.

Related Studies

Local and international studies support the importance of environmental awareness among students. A study by Nardo and Dela Cruz (2020) found that college students have moderate awareness of environmental issues but need improvement in applying sustainable practices. Similarly, international research shows that while students are aware of climate change, many lack in-depth knowledge and active involvement in environmental protection. These findings highlight the importance of strengthening environmental education and promoting practical engagement.

Synthesis of the Reviewed Literature

The reviewed literature shows that climate change and environmental protection awareness among college students is influenced by education, media, and personal experiences. While students generally have basic knowledge of environmental issues, there is still a need to improve their deeper understanding and active participation. The studies also reveal that awareness does not always lead to action, emphasizing the importance of integrating practical activities and programs in educational institutions. Therefore, this study aims to assess the level of awareness of college students and contribute to the development of strategies that promote environmental responsibility

Theoretical Framework

This study is anchored on several theories that explain how students develop awareness and understanding of climate change and environmental protection. First, Schema Theory (Anderson, 2021) suggests that readers comprehend texts by activating prior knowledge and linking it with new information. In the context of climate change, college students interpret environmental texts based on their existing knowledge, which influences how deeply they understand and internalize new concepts. Students with limited prior knowledge may struggle to make meaningful connections, resulting inlower awareness. Second, the Constructivist Learning Theory (Piaget, 1976; Vygotsky, 1978) emphasizes that learners actively construct knowledge through interaction with texts, peers, and real-life experiences. Awareness of climate change develops when students engage in active reading, annotation, discussion, and application of environmental concepts to their personal and community practices. Third, Bloom's Taxonomy of Cognitive Domain (Bloom et al., 1956; revised by Anderson & Krathwohl, 2023) provides a framework for understanding how students move from lower-order thinking skills (remembering and understanding) to higher-order skills (analyzing, evaluating, and creating). In this study, students' awareness of climate change may vary depending on their ability to comprehend, analyze scientific texts, and apply solutions in daily life. Finally, Information Processing Theory (Atkinson & Shiffrin, 1968) explains that comprehension and awareness depend on how students encode, store, and retrieve information. When students allocate sufficient time for reading and apply strategies such as annotation, they process information more deeply, which enhances awareness of environmental issues. Taken together, these theories provide the foundation for this study, highlighting how reading, comprehension, and active learning processes influence the level of awareness of college students toward climate change and environmental protection.

RESEARCH QUESTIONS

Problem 1. level of awareness of college "students toward climate change and environmental

protection.

1.1 Media consumption these were use determine the awareness of colleges pupils.

Problem 2. What are the challenges encountered in their level of awareness toward climate change and the environment? And environmental protection?

1.2 Climate change content

Problem 3. Are there relationship on the level of awareness toward climate change and environmental protection and the challenges environmental on it.

1.3 Strengthening personal values

METHODOLOGY

Research Design

This study followed a descriptive research design. Descriptive research is appropriate because it seeks to assess and describe college students' levels of awareness about climate change and environmental protection without manipulating any variables (Cresswell, 2020). It focuses on "what is" rather than "what causes", making it appropriate for understanding students' current awareness and the factors that influence it. The research used quantitative methods, with surveys or questionnaires serving as primary data collection tools. These tools will useful for gathering standardized information about a large number of respondents' reading habits, comprehension of climate-related materials, and awareness levels.

Locale of the Study

The study was conducted at DR. FRANCISCO L. CALINGASAN MEMORIAL COLLEGES FOUNDATION INC. which is located in NASUGBU BATANGAS. This institution was chosen because it had a diverse population of college students from various programs and

disciplines, making it suitable for assessing different levels of awareness toward climate change and environmental protection. The college provided access to libraries, online resources, and environmental programs, which may influence students' reading habits, comprehension, and engagement with climate-related materials. The study focused on students who are currently enrolled in undergraduate programs, as they are expected to have sufficient exposure to educational content related to environmental issues. By selecting this locale, the study aimed to obtain reliable and relevant data on students' awareness levels and the factors affecting their understanding of climate change and environmental protection.

Research Instrument

The main instrument used in this study was an adapted questionnaire of Dumlao (2021) which was modified by the researcher to collect data for this study, a structured questionnaire will be used as the primary research instrument. The questionnaire is appropriate because it allows the researcher to gather standardized information from a large number of respondents regarding their reading habits, comprehension, and awareness of climate change and environmental protection (Creswell, 2021).

Construction, Validation, and Test of Reliability of the Instrument

Construction of the Instrument The research instrument, a structured questionnaire, was carefully constructed based on a review of related literature and existing studies on reading habits, comprehension, and awareness of climate change and environmental protection. The Questionnaire is divided into four parts: Demographic Profile – Collects information on age, year level, and program/field of study. Reading Habits assesses frequency of reading, time allotment, and strategies used (e.g., Annotation, highlighting,) Reading Comprehension – Evaluates the understanding of climate-related texts, including main ideas, technical terms, and concepts. Level of Awareness on Climate Change and Environmental Protection Measures awareness, attitudes, and practices regarding environmental protection and climate change.

Ethical Considerations

This study will strictly follow ethical standards when conducting research with human participants. Prior to data collection, the researcher will obtain permission from the [Name of College/University] administration and informed consent from respondents. The study's objectives and purpose will be clearly explained to participants prior to their participation in the survey. Participation in the study is entirely voluntary, and respondents will be informed that they can withdraw at any time without penalty. The principle of confidentiality will be upheld by ensuring that no names or identifying information are requested in the questionnaire. All collected data will be used solely for academic purposes and treated with strict confidentiality. Furthermore, the study will follow the ethical principles of respect, beneficence, and justice (Belmont Report).

Respect will be demonstrated by acknowledging participants' autonomy and ensuring voluntary participation. Beneficence will be upheld by minimizing risks while maximising potential benefits, particularly in raising environmental awareness. Justice will be upheld by allowing all qualified students an equal opportunity to participate in the study.

Data Gathering Procedures

To carry out the administration of the survey-questionnaire, the researcher selected the desired number of respondents and gathered the information and data regarding the research topic. Then, the letter of request (Appendix A) was forwarded to secure approval from the principals' offices. Upon the approval, the researcher distributed the questionnaires to the respondents. The questionnaires were retrieved immediately after the students answer the questionnaires and the data gathered were tallied, organized, tabulated, analyzed and interpreted using the appropriate statistical techniques. The retrieved questionnaires were one hundred percent (100%) of the total respondents used in this study.

FINDINGS

Table 1 presents the demographic characteristics of the respondents who participated in the study on the level of awareness of college students toward climate change and environmental protection. The profile variables include age, sex, year level, academic program, and exposure to environmental education such as subjects, seminars. Or related activities. These variables were considered important in determining whether demographic factors may influence the students awareness and understanding of environmental issues. By analyzing these characteristics, the researcher was able to establish a clearer context for interpreting the results of the study. In terms of age, the respondents were categorized into appropriate age brackets representing the typical college population. The findings revealed that the majority of the respondents belonged to the age range of years old, followed by those aged years old, while the least number of participants were in the age bracket. This distribution indicates that most of the respondents are within the young adult stage, a period where individuals are more exposed to academic discussions, social media information, and public discourse related to environmental concerns. At this stage, students are more likely to encounter climate-related topics through coursework, institutional programs, and global awareness campaigns, which may influence their level of awareness and perception regarding environmental protection. With respect to sex, the data showed that percent of the respondents were male, while percent were female

The representation of both sexes in the study allows for a balanced examination of awareness levels across groups. Differences in environmental awareness may sometimes be influenced by social roles, interests, or educational exposure, therefore, including both

Male and female respondents strengthens the reliability of the findings. The presence of diverse perspectives contributes to a more comprehensive understanding of how climate change awareness manifests among college students. When grouped according to year level, the respondents were distributed among first-year, second-year, third-year, and fourth-year students. The findings revealed that the largest proportion of respondents were from the year

level, followed by while the smallest group came from. This distribution suggests that students at different stages of their academic journey participated in the study. It may be inferred that students in higher year levels potentially have greater exposure to specialized courses, research activities, and institutional programs related to environmental sustainability. As students advance academically, they may develop deeper critical thinking skills and broader awareness of global and national environmental issues. In terms of academic program, the respondents were enrolled in various fields of study such as and others. The largest percentage of respondents came from the program. The diversity of academic disciplines represented in the study provides insight into whether environmental awareness is concentrated in certain fields or shared across different programs

CONCLUSIONS

The following conclusions are drown based on the findings.

1. The study revealed that college students generally possess a moderate to high level of awareness regarding climate change and environmental protection. This indicates that students are largely informed about the causes, impacts, and significance of environmental conservation. They are able to identify key issues such as pollution, deforestation, and improper waste management, and they recognize the global importance of mitigating climate change to protect current and future generations.
2. Despite their level of awareness, the findings indicate a gap between knowledge and action. Not all students consistently apply environmentally responsible behaviors in their daily lives, such as practicing waste segregation, conserving energy, or participating in community-based environmental initiatives. This suggests that awareness alone is not sufficient to ensure sustainable practices, highlighting the need for strategies that encourage practical application of environmental knowledge.

3. Strengthening environmental education, awareness campaigns, and opportunities for active participation is essential to translate knowledge into meaningful action. Providing students with hands-on experiences, community programs, and institutional support can foster a culture of environmental responsibility. Encouraging consistent engagement in sustainable practices not only enhances individual awareness but also contributes to broader societal efforts to mitigate climate change and protect the environment.
4. Perceptions of awareness vary among students, influenced by factors such as academic program, year level, and prior exposure to environmental education. Some groups demonstrated higher awareness due to greater engagement in environmental discussions, participation in seminars, or access to informative resources. Conversely, other students exhibited lower awareness or limited understanding, which points to the importance of targeted interventions that address these disparities and ensure all students develop a comprehensive understanding of environmental issues.

RECOMMENDATIONS

The following are the recommendations based on the conclusions.

1. For Educational Institutions: Colleges and universities should strengthen environmental education by incorporating climate change and environmental protection topics across various subjects and academic programs. Schools are encouraged to organize seminars, workshops, and experiential learning activities that allow students to engage directly with environmental issues, such as tree planting, clean-up drives, recycling projects, and sustainability campaigns. By providing both theoretical knowledge and practical experiences, educational institutions can help students not only understand environmental concepts but also develop the skills and motivation to apply them in their daily lives.

2. For Students: College students are encouraged to actively participate in environmental initiatives and community-based programs that promote sustainability and environmental protection. In addition, students should adopt practical and consistent sustainable practices in their daily routines, such as proper waste segregation, reducing energy consumption, using eco-friendly materials, and supporting environmentally responsible policies. By translating awareness into action, students can serve as role models and influence others in their communities to take meaningful steps toward environmental stewardship.

3. For Government and Environmental Organizations: Government agencies and environmental organizations should continue to design and implement programs that raise awareness about climate change and environmental protection among students. These programs should provide accessible information, resources, and funding to support educational campaigns, student-led projects, and community outreach initiatives. Collaboration between schools, government, and environmental organizations can create a more structured and sustainable approach to fostering environmental awareness and encouraging active participation among the youth.

4. Future Researchers: Future studies are recommended to explore additional factors that may influence college students' environmental awareness and behavior, such as cultural beliefs, social influences, and economic considerations. Researchers should consider using larger and more diverse sample populations to enhance the generalizability of findings. Furthermore, longitudinal studies or experimental designs could be employed to evaluate the effectiveness of environmental education programs, campaigns, and interventions in promoting knowledge, shaping attitudes, and encouraging responsible environmental behaviors over time.

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