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Empowering Students' Leadership in Water Conservation in Batangas State University - Alangilan Campus

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Abstarct: ***This study examines the development of students' leadership in water conservation at Batangas State University Alangilan Campus. It aims to assess students' awareness and understanding of water conservation and to evaluate the effectiveness of an advocacy advertisement video as a tool for promoting student leadership and participation. Using a Likert-scale survey, the research measured students' perceptions of the video in terms of clarity, accuracy, and its overall influence on their awareness and sense of responsibility toward sustainable water use. Results highlight that visual advocacy materials can enhance students' engagement and strengthen their leadership potential in promoting water conservation within the campus. The study emphasizes the importance of empowering students as advocates for water conservation and offers valuable insights that can help educators, administrators, and future researchers adopt creative, student-centered strategies to promote responsible water use.***

Keywords: Water, Water conservation, advertisement, leadership

I. INTRODUCTION

Water is the essence of life it sustains all living organisms, supports ecosystems, and contributes significantly in human survival and development. However, the alarming rise of water shortages, environmental pollution, and irresponsible consumption continues to threaten the balance of ecosystems worldwide. In the Philippines, challenges such as rapid urbanization, industrial activities, and climate change have intensified the pressure on freshwater resources. The study by Alonto et al. (2023) revealed that most households relied on piped water as their main source, while individuals with higher educational attainment and older age showed stronger participation in water conservation efforts. This highlights how knowledge, experience, and awareness can shape people's sense of responsibility in using water wisely and sustaining it for future generations. These issues call for collective action and the development of responsible behaviors toward water conservation and environmental protection.

At Batangas State University–Alangilan Campus, where excellence, leadership, and social responsibility are deeply valued, students are guided to become compassionate leaders who take meaningful action toward protecting and sustaining the environment. While awareness of environmental challenges continues to grow among students, their active participation and leadership in water conservation hold the promise of inspiring more young leaders to make a lasting difference. Studies have shown that when the youth are meaningfully involved in learning and activities related to water care and conservation, they develop a stronger sense of connection to the environment. This involvement empowers them to see their potential as change-makers and young leaders who can influence others and take initiative in promoting responsible and sustainable water use within their communities (Everett et al., 2025). This situation underscores the need to build students' sense of responsibility and leadership by engaging them in initiatives that support water conservation and eco-friendly practices within the university.

Empowering students' leadership in water conservation can generate lasting influence, extending beyond the university and into the wider community. Research findings point out that when young people take part in meaningful initiatives especially through social media and other creative platforms, they begin to see themselves as voices for change. Their involvement in promoting water conservation not only builds awareness today but also for cultivating a sustained commitment to the preservation and care of our natural resources for future generations (Silvert et al., 2021). Through the development of student leadership to become advocates and leaders for the environment, they can inspire their peers and the wider community to embrace more sustainable ways of living.

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Through this action research, the researchers seek to strengthen students' sense of leadership and responsibility, deepen their awareness of environmental issues, and create meaningful initiatives that nurture a lasting culture of care, conservation, and sustainability

II. OBJECTIVES

This study aims to develop students' leadership in water conservation at Batangas State University – Alangilan Campus. Specifically, this study seeks to answer the following questions:

1) Determine the level of awareness and understanding of water conservation.
2) Evaluate the advertisement video as engaging tool in promoting students' leadership and participation in water conservation in terms of:
- clarity of the video, and
- accuracy

3) Determine the effectiveness of the advertisement video in promoting water conservation.

III. MATERIALS AND METHODS

A. Research Design

The researchers utilized a descriptive qualitative research design, which was applicable to investigate and describe students' awareness, sense of responsibility, and leadership on water conservation at the Batangas State University – Alangilan Campus. The study also involves the development and implementation of an advertisement video designed to promote leadership in water conservation. Through this medium, the researchers sought to observe and evaluate the effect of visual and participatory learning strategies on students' ecological responsibility, awareness, and engagement in sustainable actions.

B. Subjects of the Study

The study was conducted at Batangas State University - Alangilan campus. The research participants consisted of college students from the campus who were chosen based on their availability and willingness to participate in the study. Convenience sampling was employed to select participants because it allowed the researchers to reach students who were readily available and willing to take part in the study and to reach a wide range of experiences and views based on the participants. A total of 50 students were selected to participate in the study. The data for this study were collected through a Likert scale questionnaire designed by the researchers to assess students' awareness, attitudes, and sense of responsibility toward water conservation. By noting their level of agreement using a Likert-scale, the researchers aimed to obtain an accurate view of how students at Batangas State University – Alangilan Campus perceive their roles as young leaders and advocates for water conservation. Their participation supplied key data for the study but also allowed them to examine and to reflect on their responsibility as part of a generation that values water conservation.

C. Data Gathering Instrument

A questionnaire was used as the data-gathering instrument of the study for the data collection. The researchers made it from the given variables in the objectives of the study. The survey questionnaire was divided into two parts. The first section focuses on assessing students' awareness and sense of responsibility regarding water conservation. The second section addresses students' perceptions of the advertisement video and its impact.

Scoring of Responses. The four-point scale was used to score responses from parts 1, 2, and 3. The Owing Scale Continuum was applied to evaluate students' awareness for the water conservation and examine the advertisement video in terms of its clarity, accuracy of information and overall effectiveness.

Option	Adjectival Rating
4	Always/Very Strong/ Great Extent/Strongly Agree
3	Often/Strong/Moderate Extent/Agree

2	Seldom/Weak/Slight Extent/Disagree
1	Never/Very Weak/ Least Extent/Strongly Disagree

D. Data Gathering Procedure

The research project was conducted by a team of six researchers from Batangas State University - Alangilan Campus. The main objective is to empower students' leadership in water conservation in Batangas State University - Alangilan Campus by means of advertisement video. Preceding the data collection process, the researchers obtained permission from the university administration and provided all participants with information of the study and the confidentiality of their responses. The questionnaire was distributed to selected college students of Batangas State University – AlangilanCampus, through an online platform. The perceptions of the participants were evaluated by capturing their responses on a Liker- scale, allowing them to express the degree of their agreement or disagreement with each statement. After all responses were collected, the data were organized and tabulated for analysis in order to assess the overall levels of awareness, responsibility, and leadership both before and after viewing the advertisement video.

IV. RESULTS AND DISCUSSION

A. Assessment the Students' Awareness Toward Water Conservation

The following table presents the results of the assessment of students' awareness regarding water conservation. The data were gathered from 50 participants from Batangas State University – Alangilan Campus, illustrating how respondents understand the importance of conserving water in their daily lives.

Table 1

Students' Awareness Toward Water Conservation

ITEMS	WEIGHTED MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
I am aware that water is a limited natural resource that must be conserved	3.9	.303	Strongly Agree
I am aware of the importance of saving water for future generations.	3.88	.328	Strongly Agree
I am aware that wasting water can lead to water shortages in the future.	3.84	.370	Strongly Agree
I am aware of how my daily actions, such as leaving the faucet running, affect water usage.	3.8	.404	Strongly Agree
I am aware that water conservation helps protect the environment.	3.78	.465	Strongly Agree
I am aware of different ways to conserve water at home and in school.	3.76	.476	Strongly Agree
I am aware that everyone has a role in protecting and conserving water.	3.74	.443	Strongly Agree
I am aware that water conservation is connected to sustainable living and climate change.	3.74	.454	Strongly Agree
I am aware of water-saving technologies or methods that can reduce water waste.	3.68	.519	Strongly Agree
I am aware of government or school programs that promote water conservation.	3.68	.621	Strongly Agree
Composed Mean	**3.78**	**.4383**	**Strongly Agree**

Table 1 shows the students' awareness of water conservation based on responses from 50 respondents from Batangas State University- Alangilan Campus. The findings indicate that all items obtained weighted means ranging from 3.68 to 3.9, with verbal interpretations of Strongly Agree. This indicates a high level of awareness among the students regarding the importance of conserving water.

Students Strongly Agree that water is a limited natural resource that must be conserved, which obtained the highest weighted mean (WM=3.9), indicating that respondents clearly recognize the importance of protecting this essential resource and that their daily actions affect water usage (WM=3.8). They are also aware that water conservation is essential in preventing future water shortages (WM=3.84) and protecting the environment (WM= 3.78). This supports the finding of Singha et al. (2022) emphasized that awareness is a key predictor of conservation behavior, and individuals who understand environmental problems are more likely to adopt responsible attitudes and actions. The awareness of specific methods and technologies for conserving water obtained the lowest weighted mean (WM=3.68), though still interpreted as Strongly Agree, showing slightly lower familiarity with practical conservation strategies. As stated by Ajzen's Theory of Planned Behavior (2020) further explains that awareness contributes to behavioral intention, though actual conservation behavior depends on perceived control and social norms.

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The composite mean of 3.78 (Strongly Agree) across all items demonstrates a strong awareness among students that the water conservation is essential with the standard deviations, ranged from .30 to .62, indicate that students' responses were generally consistent across all items and this is supported by UNESCO (2021) that environmental education should cultivate both awareness and responsibility, aligning with students' strong recognition of water's importance. Overall, the results confirm that students have high awareness of water conservation, while emphasizing the need to strengthen knowledge of practical conservation methods.

B. Evaluation of the Advertisement Video

The students' evaluation of the advertisement video on water conservation reflects several key factors that influence how effectively the material delivers its message. The clarity and accuracy of the content are essential, given that students may differ in how they interpret and relate to the information provided.

Table 2.1. Students' Evaluation of the Clarity of the Advertisement Video

Table 2.1

Students' Evaluation of the Clarity of the Advertisement Video

ITEMS	WEIGTHED MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The language used in the video is simple and understandable for students.	3.72	.463	Strongly Agree
The message of the advertisement video about water conservation is easy to understand.	3.7	.463	Strongly Agree
The purpose of the video in promoting water conservation is clearly presented.	3.66	.519	Strongly Agree
The video avoids confusing or unnecessary details that affect understanding.	3.66	.519	Strongly Agree
Overall, the advertisement video clearly communicates its goal of promoting water conservation among students	3.64	.525	Strongly Agree
The visuals and text in the video clearly support its main message.	3.62	.535	Strongly Agree
The video clearly explains how students can take part in conserving water.	3.62	.530	Strongly Agree
The visuals, sounds, and narration help make the message clearer.	3.6	.606	Strongly Agree
The information in the video flows smoothly and is easy to follow.	3.58	.544	Strongly Agree
The connection between leadership, participation, and water conservation is clearly shown.	3.58	.538	Strongly Agree
Composite Mean	**3.638**	**.724**	**Strongly Agree**

Table 2.1 shows the Student's assessment of the water conservation advertisement video based on responses from 50 respondents from Batangas State University – Alangilan Campus. The findings, which range from 3.58 to 3.72, all fall under the verbal interpretation Strongly Agree, indicating that the students hold a very positive perception of the video's clarity, message, and overall presentation.Students strongly agree that the language used in the video is simple and understandable, which obtained the highest weighted mean (WM = 3.72). Following this, high ratings were recorded for the clarity of the video's purpose (WM = 3.66) and the role of visuals, sounds, and narration in enhancing understanding (WM = 3.60). These results demonstrate that the audiovisual components effectively consolidate the message on water conservation. The lowest weighted mean, 3.58, corresponds to the smoothness of the information flow.

Although this statement received a slightly lower rating compared to the others, it still falls under Strongly Agree, indicating that students still find this aspect effective. Overall, the advertisement video was perceived as highly effective, reflected in the overall composite mean of 3.638 (Strongly Agree). Response consistency was high, as shown by the standard deviations (.463 to .606). In summary, the video successfully communicates the need for water conservation using clear language and helpful visuals, proving it to be an effective tool.

Table 2.2
Students' Evaluation of the Accuracy of the Advertisement Video

ITEMS	WEIGHTED MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The video's message can be applied to real situations in school or community leadership.	3.72	.487	Strongly Agree
The examples of student roles in the video were factually correct.	3.7	.463	Strongly Agree
The video provided correct examples of how students can participate in leadership.	3.7	.463	Strongly Agree
The narration and visuals supported accurate representation of participation and leadership.	3.68	.513	Strongly Agree
The examples and situations shown in the video were realistic and relevant.	3.64	.485	Strongly Agree
The language and terms used in the video correctly described leadership and participation.	3.64	.485	Strongly Agree
The video avoided exaggerating or distorting information about student activities.	3.64	.525	Strongly Agree
The advertisement video was accurate in presenting information about student leadership and participation.	3.62	.535	Strongly Agree
The examples of leadership and participation in the video were accurate representations.	3.62	.490	Strongly Agree
The video was consistent in presenting accurate and reliable ideas.	3.58	.499	Strongly Agree
Composite mean	**3.654**	**.703**	**Strongly Agree**

Table 2.2 shows that students from Batangas State University - Alangilan Campus Strongly Agree that the advertisement video is accurate, with weighted means ranging from 3.58 to 3.72. This means the students found the examples, information, and representations of leadership in the video to be realistic, factual, and applicable to real-life situations. The highest rating (WM = 3.72) indicates that students believe the video's message can be applied to actual school or community contexts, showing its string relevance and reliability. These results support studies such as Schrögel, and Humm (2020), who found that accurate and relatable visuals increase comprehension and trust in educational videos. Environmental communication research (2022-2024) also showed that credible and correct information strengthens students' engagement and understanding. Likewise, Lal et al. (2023) highlighted that videos using realistic examples improve students' motivation to practice conservation. Overall, the composite mean of 3.654 confirms that the advertisement video is highly accurate, credible, and effective in presenting true information about water conservation and student leadership.

C. The Effect of the Advertisement Video on Students

The effect of the advertisement video on students highlights several important aspects that shape its overall influence on their awareness and attitudes toward water conservation. The clarity, relevance, and accuracy of the content are important, as students may vary in how they understand, interpret, and apply the information presented.

Table 3 shows that the advertisement video is highly effective in promoting water conservation among students. All items received weighted means between 3.58 and 3.88, interpreted as Strongly Agree. Students agreed that the video raised their awareness, motivated them to save water, showed practical conservation methods, and inspired them to be responsible water users. The highest-rated item shows that the video strongly encourages responsibility (WM = 3.88). Students also found it engaging, clear, and helpful in developing leadership in environmental protection. The overall composite mean of 3.678 confirms that the video effectively influenced students' awareness, attitudes, and actions toward water conservation. These results match the study of Lal et al. (2023), who found that using videos and campaigns helps students develop better water-saving habits, just like how the students in this study strongly agreed that the video motivated them to act. This is also similar to the findings of Kaul, Schrögel, and Humm (2020), who explained that clear and accurate videos make it easier for students to understand the message, which supports why the respondents found the advertisement video effective, clear, and easy to follow. Overall, the results show that the video really helped students understand the importance of saving water and encouraged them to act responsibly.

V. CONCLUSIONS

The following conclusions were drawn:

1) This study emphasizes the advertisement video effectively raised awareness and motivated students to take action.
2) This study highlights that empowering students encourages a more sustainable and environmentally responsible campus community.

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VI. RECOMMENDATIONS

In light of the findings and conclusions of the study, the following recommendations are hereby presented:

1) Given the effectiveness of the advertisement video to raised awareness. It is recommended to maintain and regularly update the advertisement video while integrating it with other forms of engagement, such as workshops, posters, and social media challenges, to raise awareness, reinforce water conservation messages, and sustain student motivation.

2) To encourage and support more students to take active leadership roles in water conservation initiatives, empowering them to inspire their peers and cultivate a sustainable, environmentally responsible culture across the campus.

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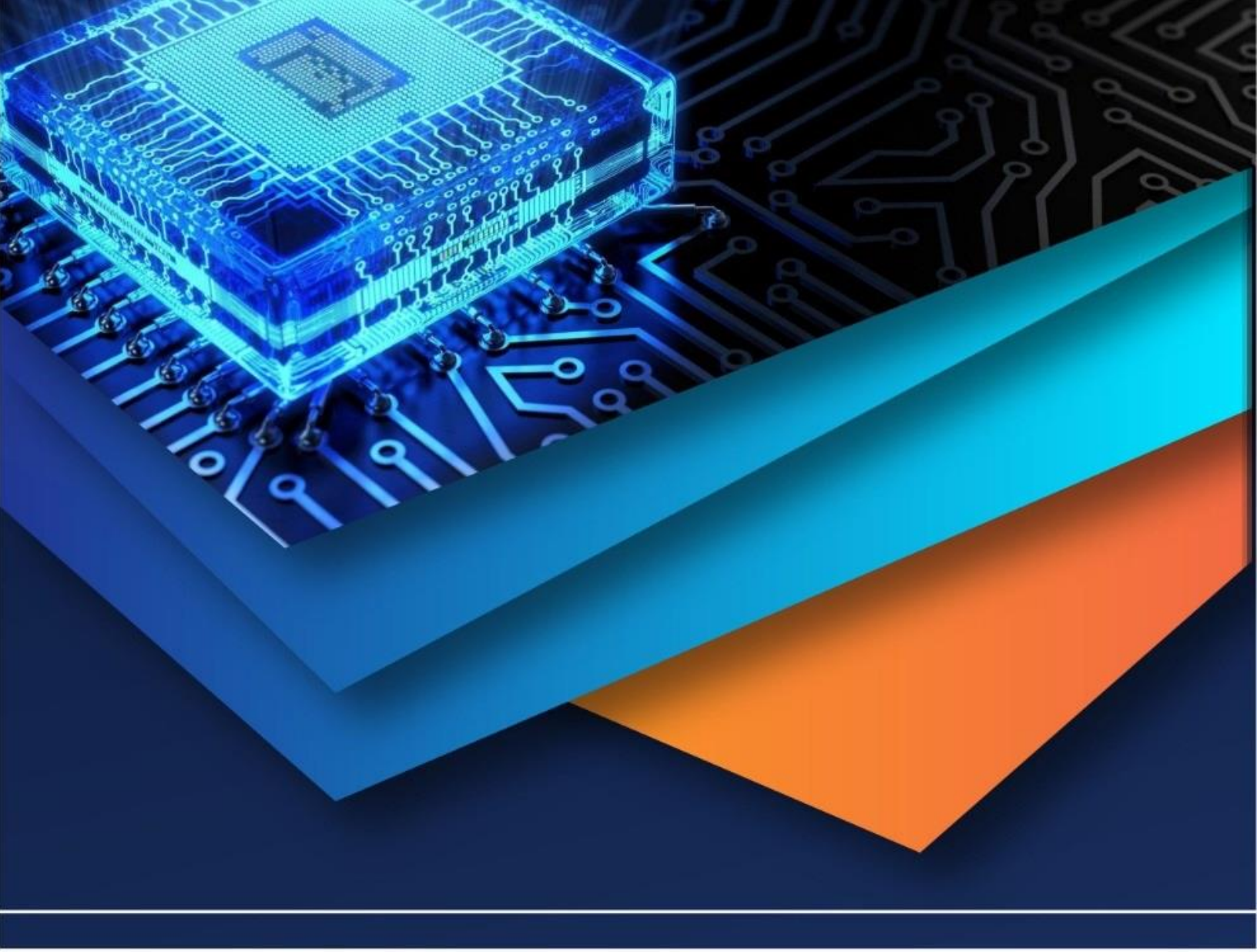
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