

GULAYAN SA BAKURAN: AN INNOVATIVE HOME-SCHOOL HORTICULTURE DEVELOPMENT OF GRADE 10 LEARNERS OF BINHS



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ABSTRACT

The highlight of the proposal was to extend environmental activities of YES-O to the community with Gulayan sa Bakuran as an extension of Gulayan sa Paaralan which promotes horticulture development in school and in the community.

The purposive sampling technique was used in this research wherein the whole population was taken singly to gather data objectively. Researchers informed the school and the parents of the respondents, and the seedlings were given to their parents. The respondents of the research were Grade 10 students enrolled in Cookery. A survey questionnaire was used to gather data from the respondents.

The project had a positive impact on the environmental awareness of the participants such as, *reduction of Carbon Footprints, Economic Value, and health benefits, and using natural fertilizer is good for the environment*. The results also showed positive impact on the willingness of the respondents in *creating their own vegetable garden, using recycled materials, continue growing vegetables, promoting vegetable gardening, participating in environmental projects, and reducing Carbon Footprints*.

The results of their garden were monitored, factors such as the fertility of the soil and the size of the containers where the seeds were planted affected the rate of the growth and survival of the plants.

Since there was no face-to-face interaction with the students, YES-O thought of project to reach the students and promote greener environment. The research provided YES-O data of the level of awareness and willingness of students to participate in environmental activities.

Keywords: environmental awareness, domestic vegetable garden, recycled materials

Introduction

The Philippines emits an average of one metric ton per capita of emissions or way below the global average of four (4) metric tons per capita of greenhouse gas (GHG). The country's climate change mitigation actions shall strengthen the resilience and adaptive capacity of the country, including through enhanced access to climate finance, technology development and transfer, and capacity building. The implementation of the mitigation commitments will be undertaken with bilateral and multilateral support and the implementation of the mechanisms of the Paris Agreement. The Philippines will undertake adaptation measures across but not limited to the sectors of agriculture, forestry, energy, coastal and marine ecosystem, and biodiversity, and will sustain its adaptation planning and resilience-building, noting the mitigation co-benefits of these various measures.

The year 2020 placed the climate crisis into a different spotlight as the world responds to the challenges posed by the COVID-19 pandemic. Last November 18, 2020, the Department of Education hosted its annual National Call for Climate Change Action with the theme "*Alpas: Channeling youth eco-anxiety to climate action,*" the 4th NCCC aims to elevate the discussion of the impacts of climate change on mental health and the actions that can be done to make meaningful change. Eco-anxiety refers to the amplified anxiety brought by one's knowledge of environmental changes, which includes the feeling of loss, helplessness, and frustration in the face of climate change. Children are known to be more vulnerable to eco-anxiety as their generation will bear the consequences of climate change. DepEd projects on climate change adaptation and mitigation such as the School Waste Management, Gulayan sa Paaralan, Tree-Caring and Growing in the New Normal.

Gulayan sa Paaralan as an extended National Greening Program of the DENR aims to promote a greener environment and reach students nationwide to part take in making the environment greener. Due to the COVID-19 pandemic where the schools undergone a new normal setting where face to face classes was prohibited, the Gulayan sa Paaralan Project still exists but since there is an absent of students and the teachers can only work in school at limited number of days the YES-Organization thought of a new way where the project could be extended in their homes.

The recent activities of the YES-Organization became remarkably successful with the help of the students and the BINHS' faculty and staff. Last School year 2019-2020 before the pandemic happened the school was chosen as the Most-Eco Friendly School in the division of Binan because of the intensive activities done to promote environmental awareness. To continue this practice the researcher as an adviser thought of new ways where the problems in waste management and human activities impacts on the environment could be catered amidst the new normal situation due to COVID-19 pandemic.

The purposive sampling technique will be used in this research that would mean the whole population will be taken singly to gather the needed data objectively. A purposive sampling is a non-probability sampling that is selected based on characteristics of a population and the objective of the study. This type of sampling can be very useful in situations when you need to reach a targeted sample quickly, and where sampling for proportionality is not the main concern. Grade 10 students of Binan Integrated National High School participated in the research. The researcher collected data from 190 respondents from Binan Integrated National High School. The respondents were selected grade 10 students from Binan Integrated National High School who were currently taking Cookery (T.L.E. 10).

METHODOLOGY

Information Drive Phase

The researcher informed the school and the respondents on the Gulayan sa bakuran project of YES-O. Vegetable seedlings were given to the respondents.

Implementation Phase

With the use of old containers such as plastic bottles, milktea cups, and like, vegetable seedlings (petchay and mustasa) were planted at the respondents' houses.

RESULTS

Majority of the students have a high level of awareness of the benefits of having their own vegetable garden at home. 40% are level 4 in their awareness. 36% are in Level 3. 16% are on level 2 and 8% on Level 1.

The survey also shows that majority of the students have an average level of awareness of lessening their Carbon Footprints by having their own vegetable garden. 38% are level 4 in their awareness. 42% are in Level 3. 14% are on level 2 and 6% on Level 1. On the other hand, the respondents have a high level of awareness of the Economic Value of the vegetable garden for their family. 56% are level 4 in their awareness. 26% are in Level 3. 10% are on level 2 and 8% on Level 1.

The respondents have a high level of awareness of using natural fertilizers is good for the environment. 56% are level 4 in their awareness. 26% are in Level 3. 10% are on level 2 and 8% on Level 1. Moreover, 38% of the students strongly agrees on creating their own vegetable garden, 40% agrees, 10% are neutral, 8% disagrees and no one strongly disagrees. Another 52% of the students strongly agrees on using Recycled Materials as containers for their vegetable garden, 38% agrees, 10% are neutral and no one disagrees or strongly disagrees. Still according to the researchers' survey 62% of the

students strongly agrees on continuing to grow vegetables in their yard, 29% agrees, 8% are neutral, 1% disagrees and no one strongly disagrees. 65% of the students strongly agrees to promote vegetable gardening to their family members, 32% agrees, 10% are neutral, 1% disagrees and 1% strongly disagrees. It can also be noted that 40%

of the students strongly agrees on participating in other environmental projects, 48% agrees, 10% are neutral, 1% disagrees and 1% strongly disagrees. On the last note, 38% of the students strongly agrees on helping to reduce their carbon footprint, 40% agrees, 10% are neutral, 8% disagrees and no one strongly disagrees

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- *Reason for conducting the study*

The **scientific evidence** is clear and irrefutable — human activity is causing our planet to warm at an alarming rate. International bodies of scientists have warned that we have just over a decade to halve our emissions to avoid the most devastating impacts of climate change on our food supply, national security, global health, extreme weather, and more.

The YES-organization of BINHS annually holds activities promoting environmental campaign which enhances student's awareness and consciousness about the impact of human activities in the environment. The organization believed that the activities reached the students and the community. Amidst the pandemic the activities were mostly held online aside

from the Gulayan sa Paaralan and Waste Management Projects, to answer this the organization thought of an innovative way where the projects could be extended in their homes. The project will not only raise the student's environmental awareness but will also be extended to their families and to their communities.

- *How the results could be used in action planning*

The recent activities of the YES-Organization became remarkably successful with the help of the students and the BINHS' faculties and staffs. Last School year 2019-2020 before the pandemic happened the school was chosen as the Most-Eco Friendly School in the division of Binan because of the intensive activities done to promote environmental awareness. To continue this, practice the researcher as an adviser thought of new ways where the problems in waste management and human activities impacts on the environment could be catered amidst the new normal situation due to COVID-19 pandemic.

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