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# Environmental Awareness, Practices, and Attitudes of Selected UNP Students

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**ABSTRACT**

*The ill-effect of environmental destruction is evident and its future potentialities are immense. Environmental awareness through education, particularly the youth who bear the future responsibility for the stewardship of the environment and pass on their knowledge to future generations is a concern.*

*This study determined the level of environmental awareness, and practices, and attitudes of the selected students of the University Of Northern Philippines (UNP) in terms of seven environmental themes, namely: stewardship, finiteness of resources, diversity and stability, change, material cycle, balance nature, and interdependence. The descriptive survey-correlational research design was employed using a questionnaire as data gathering instrument. Frequencies and percentages, mean, and correlation analysis were used to treat the data.*

*Results of the study showed that the respondents have very high level of environmental awareness and good practices on the overall environmental themes. The respondents did not favor the cutting of trees, forest burning/forest fires, quarrying, hunting, road widening, squatting, mining, river drilling, use of inorganic fertilizer, and industrialization.*

*Correlation analysis revealed that there is a significant relationship between the level of awareness and extent of practice of the respondents along the seven environmental themes.*

*Based on the findings and conclusions of the study, it was recommended to improve further the environmental awareness, practices, and attitudes of the students by developing an environmental education program and strict implementation of the laws and ordinances protecting the environment in the University.*

**Keywords:** environmental awareness, practices, attitudes, UNP students, environmental laws

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## INTRODUCTION

The environment encompasses all things that surround every living thing. While man is the most intelligent among the creatures on this planet, he is also the culprit of all environmental problems occurring in any sides of the world. With man's desire for economic development, environmental problems and issues have cropped up.

Everybody is now facing the challenges of preserving life and how to sustain culture and to survive. This is due to the impact of climate change related disasters. Climate change is a critical global issue. The increase of temperature which is attributed to human activity has brought widespread and unpredictable changes around the world. Recent scientific studies reveal that human activities have contributed significantly to the increase of greenhouse gases in the atmosphere that causes climate change.

Education is considered as a pillar of development and a process in which a culture or value is formally transmitted to a learner. It is one among the processes of changing knowledge, skills, and attitudes, be it formal, non-formal, or informal. The home where basic values are being acquired is not sufficient agent for transformation and education. Overcoming the adverse effect of environmental degradation is to encourage schools to inculcate conservation issues as part of their curricular and co-curricular activities. Educational pressure over the world is now focusing on environment, conservation, and protection. Education greatly helps people become aware of environmental issues and concerns and, thereby, foster positive attitude towards safeguarding the environment.

Interconnecting the child with his environment can help him know the realities of the environment and develop a positive attitude towards it. This is manifested in the Belgrade Charter which underlined the goal of education of the environment. According to this charter, the purpose of this kind of education is 'to develop a world population that is aware of and concerned about the environment and its associated problems and has the knowledge, skills, attitude, motivations, and commitment to work individually and collectively towards solutions of current problems and prevention of new ones (Singh, 1999).

Considering the role of education along environmentalism, it is a must that students set themselves as examples. The researcher felt the need to conduct a study to determine the environmental awareness, practices, and attitudes of the

students so that necessary actions could be taken up. Results of this study may aid in creating environmental programs and activities among the students.

This study aimed to determine the environmental awareness, practices, and attitudes of selected students of the University of Northern Philippines during the Year 2011.

Specifically, it sought to determine: a) the profile of the respondents in terms of age, sex, course, and mass media exposure; b) the level of environmental awareness of the respondents along the seven environmental themes: stewardship, finiteness of resources, diversity and stability, change, material cycle, balance nature, and interdependence; c) the extent of practice of the respondents along the aforementioned environmental themes; d) the attitude of the respondents towards the different environmental issues in relation to the aforementioned environmental themes; and e) any significant relationship between the level of awareness and extent of practices of the respondents on the seven environmental themes.

In the country, the legal bases of environmental education in the form of constitutional provisions, status, treatises, administrative orders, municipal ordinances, and court decisions were to control the adverse effects of human activities and to protect the environment. These includes: Philippine Constitution Article II Sec 15-16; PD No. 1586 (1978) known as Environmental Impact Statement System which requires any project classified as environmentally critical or planned to be undertaken in an environmentally critical area to present an Environmental Compliance Certificate (ECC) before it started; PD no 1151 (1997) which gave birth to the Philippine Environment Policy; RA No. 393 known as the National Water Pollution Control Commission (1964) and PD no. 825 (1975); RA 7586 or the National Integrated Protected Area System (NIPAS) Act of 1992; RA no 9003 also known as the Ecological Solid Waste Management Act of 2000; Executive Order no 197 (1987) was launched to commission the DENR to promote conservation and protection of the country's natural resources and mandates DENR to conduct "Dalaw Turo" of environmental awareness, project, and activities.

The Republic Act No. 9512, or the National Environmental Awareness and Education Act of 2008 was signed into law on December 12, 2008. This law reiterates the policy of the State to protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature. The law further recognizes the vital role of the youth in nation-building and the role of education to foster patriotism and nationalism, accelerate social progress and provide total human liberation and development.

Pursuant to R.A.9512, the Commission on Higher Education (CHED) enjoined all higher education institutions (HEIs) to integrate environmental education in the curriculum, particularly the Civic Welfare and Training Service component of the National Service Training Program (CWTS-NSTP).

Agenda 21 states that "education is critical for promoting sustainable development and improving the capacity of the people to address environment and development issues". Moreover, education is stated to be an indispensable means of "achieving environmental and ethical awareness, values and attitudes, skills and behavior consistent with sustainable development and effective public participation in decision-making". This emphasis has influenced reform of educational systems and practices in many States already where environmental education is being introduced into the curriculum of educational institutions for pre-school through institutions of higher learning.

As in any advertisement or public awareness campaign, the involvement of people that are well-known and respected public figures and effective use of the media can be a potent way of increasing understanding of the importance of environmental issues and enforcement. Newspapers, television, radio, magazines, and other media can be used to quickly reach a large number of people.

The final list of unifying themes or core messages of environmental education were refined by the Department of Environment and Natural Resources-Environment Management Bureau (DENR-EMB) in 1996 as follows: 1) Interdependence. Everything is related to everything; 2) Change. Everything changes. Some changes enhance the natural state of the environment, others degrade it; 3) Diversity and stability. Diversity is essential. It promotes stability; 4) Finiteness of Resources. Most of the earth's resources are finite. Therefore, they must be used prudently and wisely; 5) Materials cycle. Everything must go somewhere and ends somewhere; 6) Balance of nature. Nature has its own laws and processes to maintain it.; and 7) Stewardship. Humans are part of nature. They are not masters, but stewards of the earth.

World leaders organized the Earth Summit with aim of promoting environmental awareness among people with 115 representatives from the different nations of the world including 114 heads of state organized themselves and came up with a covenant forged the Ten Green Commandments: 1) We must respect the environment. 2) We must alter our behavior as individuals and as nations in order to preserve the earth and its beauty. 3) We must integrate environmental consideration in all decision making. 4) We must improve the environment; 5) We must conserve

the resource which embellishes our environment. 6) We must turn renewable resources that the Creator's goodness bestowed. 7) We must not pollute, litter, waste nor destroy. 8) We must study the environment, the wonders of nature, and the processes which affect it. 9) We must enlist in the service of the environment. 10) We must never forget that humanity is an inseparable part of creation (UNEP 1985 Annual Report).

Grant (2012) cited the nine principles of environmental education: 1) Education should emphasize our interdependence with other peoples, other species and the planet as a whole. 2) Education should help students move from awareness to knowledge to action. Teachers, students, and schools in the world's richer countries should reduce their consumption of the world's resources. 3) Students must have opportunities to develop a personal connection with nature. 4) Education should be future-oriented. 5) We must relearn "old wisdoms" from native peoples to re-connect to the planet. 6) Teachers should incorporate media literacy into every school subject. 7) Teachers should be facilitators. 8) Teachers should be good role models for their students and "walk their talk". 9) An environmental assessment is an important tool for measuring performance, assessing progress, and setting goals with respect to environmental practices.

One of the recommendations of the Carnegie Mellon 1998 strategic planning on education and research programs related to environment was to expand internal efforts to implement environmentally progressive practices on campus. This was viewed by the strategic planning committee on environment as important for the following reasons: (1) it provides credibility for the green practices and management techniques that we are developing and which we espouse; (2) it provides opportunities for our green/sustainable design research and education efforts to use our campus as an experimental or demonstration site; (3) it provides a means of universal environmental education for the students, staff, and faculty; (4) it saves the university money in the long run and has environmental benefit (Tipton, K. J., 2005).

Lipsey as cited by Domingo (1999) found out that among the characteristics of people that make them more receptive to environmental issues are the extent of their knowledge or awareness about environmental issues, their personal values, activities, and experiences that bring them into constant to their environment. He added that more striking circumstances often provide a direct stimulus to heighten environmental concerns; for instance, exposure to pollution and environmental deterioration, experience with shortages caused by resource scarcity, or involvement in a community that suffers a dramatic environmental incident.

The success of determining the issues and concerns governing the environment depends on how well students understand and view the environment and its complex processes. Students need not only be aware but more so, they need to comprehend their environment so that, in the future, they can become better stewards. Students' attitudes and perceptions toward the environment could significantly influence sustainability of life in the future (Glenn, 2008).

Balmaceda (2008) studied the environmental awareness, practices, and attitudes of the Tingguians of Abra. Results of the study revealed a high level of awareness on the different environmental themes as a whole. The respondents displayed a very high level of awareness along stewardship, finiteness of resources, materials cycle, and balance of nature but they were only at high level of awareness along diversity and stability, change, and interdependence. The study also revealed a high extent of practice towards protection and conservation of the environment. Results also showed a relationship between the level of awareness and extent of practice of the respondents. The extent of practice is high because their level of awareness is high. Also, a good attitude regarding the protection and conservation of the environment was shown by the respondents and their attitude also influenced their practice.

Environmental attitude is defined as "a learned predisposition to respond consistently in a favorable or unfavorable manner with respect to the environment." It is also defined as "a learned belief which developed from an individual's knowledge and values about the environment and governs action to support or sustain environment" (Uitto, et al., 2004).

Humans continue to engage environmental damage behaviors at the individual, corporate, governmental, and societal levels. These behaviors contributed to the creation of several environmental problems, which may expose serious threats to the health of humans and all living species (Gore, 1993). While it is thought that the main source of many environmental problems is irresponsible behaviors of people on the environment, it is important that humans have awareness of environmental problems. It is a fact that human beings need to raise awareness of environmental problems as a result of necessary trainings.

Roberta (2009) researched on the indication of environmental literacy using a new survey instrument to measure awareness, knowledge and attitude of university aged students in Iowa State University. The research results show that from the total of 2,793 respondents,1,367 students (48.9%) have intermediate position to environmental issues explored in the study, while 1,097students (39.3%)

have a positive attitude to environmental issues raised in the study. Only 50 students (1.8%) have a negative attitude towards environmental issues. In case of knowledge survey 52.92 percent of the students in this study have moderately high and high level of knowledge, 33.12 percent of them have moderate level of knowledge, and 3.94 percent have low level of knowledge about the environment. Roberta (2009) also identified a significant difference in environmental knowledge between male and female students. Male students scored significantly higher than female students in environmental knowledge.

Budak, et. al., (2005) in a research on environmental attitude in Turkey found out that male students were more reluctant to environmental issues than female students.

The university students are tomorrow's leaders and decision makers in every development sector. Behavioral change towards the environment will be easier and more effective if students are environmentally well informed, aware, initiated, and have attitudinal change (Oweini and Houri, 2006).

Developing the right attitude, knowledge, and awareness at every level of education, needs a study and analysis of students' awareness, knowledge, attitude, behavior, and intention about the environment. However, there are few studies conducted on students' awareness, practices, and attitude about environmental degradation.

The researcher believes that there can be no hope of finding viable solutions to environmental problems unless education at all levels is suitably modified to enable people from all walks of life to comprehend the fundamental interactions and interrelationships between humans and their environment.

## METHODOLOGY

This study made use of descriptive survey as it determined the environmental awareness, practices, and attitudes of the respondents. There were 100 students of UNP who were involved in this study. Purposive-incidental sampling was used. Data gathering took place at the UNP student park among students who were available and willing to answer and share their views about the environment.

A questionnaire adopted from Balmaceda (2008) was used in this study. It consisted of items on environmental awareness, practices, and attitude tests based

on the different environmental themes, namely: stewardship, finiteness of resources, diversity and stability, change, material cycle, balance nature, and interdependence.

Frequencies and percentages, mean, and simple correlation analysis were used to analyze the data gathered in the study.

## RESULTS AND DISCUSSION

### Profile of the Respondents

The majority (54 or 54.00%) of the respondents are 17 years old, female (36 or 36%), taking up Bachelor of Secondary Education (67 or 67%) and primarily exposed to television. The finding suggests that the respondents are within the common age range of Filipino College students, female, education students, and their main sources of information about the environment is the television.

### Level of Environmental Awareness of the Respondents

Man **as God's Caretaker (Stewardship).** Table 1 shows that the respondents have "high" level of awareness on "stewardship" as shown by the overall mean rating of 4.16. The respondents "agreed" that they should protect and conserve animals and insects for the future generation, as steward of the earth, and should keep and maintain plants in the garden by removing pests merely with their hands. On the other hand, the respondents strongly agreed that they should be kind to animals and treat them with human heart (5=4.45). Despite the high level of awareness on stewardship, there is a need to improve further all the means to learn about the need of taking care of our fragile planet.

The **Earth – For the Future Generations Too (Finiteness of Resources).** The respondents were found to have a "very high" level of environmental awareness along finiteness of resources or the earth–for the future generations too (∈ 4.43). This could be verified by the mean values of all the items in the said environmental theme which ranged from 4.21 to 5.00 (very high).

The above finding implies that the respondents have remarkable knowledge that earth resources are limited and that the earth should be for future generations to use. This may be a result of the learning experiences of the respondents since their childhood up to the time this study was conducted.

Table 1. Overall item mean ratings on the level of environmental awareness of the respondents along the seven environmental themes.

| Level of Environmental Awareness on the Seven Environmental Themes | 5 | DR |
|---|---|---|
| 1. Man: God's Caretaker (Stewardship) | 4.16 | H |
| 2. The Earth -- For the Future Generations Too (Finiteness of Resources) | 4.43 | VH |
| 3. The Earth is Rich with Natural Resources (Diversity and Stabilitvl | 3.93 | H |
| 4. Most of the Earth's Resources are now Depletina (Change) | 3.96 | H |
| 5. Everthina Must Go Somewhere and Ends Somewhere (Materials Cycle) | 4.26 | VH |
| 6. The World is Verv Beautiful-It's God's Gift to Us (Balance of Nature) | 4.48 | VH |
| 7. The earth is fragile and dying. I must have to lake care of it, heal and save it the best wav I can. I can do a lot (Interdependence) | 4.29 | VH |
| a. At home | 4.32 | VH |
| b. In Public Places | 4.30 | VH |
| c. In the Community Where I Belong | 4.24 | VH |
| **Overall** | 4.21 | VH |

| Norm: Statistical Range | Descriptive Equivalent | |
|---|---|---|
| | Item | Overall |
| 4.21-5.00 | Strongly Agree (SA) | Very High (VH) |
| 3.41-4.20 | Agree (A) | High (H) |
| 2.61-3.40 | Fairly Agree (FA) | Average (A) |
| 1.81-2.60 | Disagree (D) | low(l) |
| 1.00-1.80 | Strongly Disagree (SD) | Very Low (VL) |

**The Earth is Rich with Natural Resources (Diversity and Stability).** As reflected in Table 1, the respondents have "high" level of awareness of diversity and stability of the earth resources (X=3.93). All the five indicators on this environmental theme were "agreed" only by the respondents as supported by the computed mean values which fall within the range of 3.41-4.20. This result suggests that students of UNP have high level of awareness of the diversity and stability of earth resources. Though this was rated high, there is a need to improve the students' level of awareness of this aspect of the environmental themes.

Most of the Earth's Resources are now Depleting (Change). The respondents are at "high" level of awareness that most of the earth's resources are now depleting or changing (X=3.96). The findings imply that the respondents believe that the earth's resources are now being depleted or changed due to the unwise use of these resources by human beings.

**Everything Must Go Somewhere and Ends Somewhere (Materials Cycle).** The respondents have "very high" level of awareness of the environmental theme that everything must go somewhere and ends somewhere (=4.26). This is supported by the strong conviction of the respondents that there is cash in trash,

recycling helps reduce wastes in dumpsites, kitchen wastes like fruits and vegetable peels can be converted into fertilizers, and waste materials that are disposed properly can help save the environment. The overwhelming awareness of the respondents on this theme could be a result of the activities, projects, and programs undertaken in the school like waste minimization, segregation, recycling, and composting.

The World is Very Beautiful. It's God's Gift to Us (Balance of Nature). The respondents have "very high" level of awareness that the world is very beautiful-it's god's gift to us (balance of nature) as shown by the overall mean rating of 4.48. This is backed up by the strong agreement of the respondents that fresh air entails good health; clean beaches and rivers are good place for picnics and recreation; open fields, hills, and mountains are manifestation of god's magnificent work of art, and production of cosmetics destroys the ozone layer with mean ratings ranging from 4.21-5.00. This implies that respondents are very much familiar that the earth is very beautiful and it is God's gift.

The earth is fragile and dying. I must have to take care of it, heal and save It the best way I can. I can do a lot. (Interdependence)

**At Home.** The level of environmental awareness of the respondents on the theme on the earth is fragile and dying, I must have to take care of it, heal and save it the best way I can. I can do a lot (interdependence) is "very high" with an overall mean rating of 4.32. This means that at home, the respondents are also highly aware that the earth is degenerating and that they also have the role of protecting the environment.

In **Public Places.** The respondents have "very high" level of awareness of "interdependence" in public places as backed up by the overall mean rating of 4.30. The respondents also "strongly agreed" that smoke belching vehicles can cause diseases, noise is a form of pollution and it does not promote good health, and non-degradable substances like plastic bags are the chief land pollutants as supported by the mean values which fall within the range of 4.21-5.00. This finding implies that public places have also its share in caring, healing and saving the fragile and dying earth.

In the Community Where I Belong. The respondents have "very high" level of environmental awareness that the earth is fragile and dying, I must have to take care of it, heal and save it the best way I can, as evinced by the overall mean rating of 4.24. This result indicates that the community is a great help in protecting the

environment like reducing the cause of floods and soil erosion, having a toilet for each household, helping in the maintenance of a clean community, and others.

**Overall level of Environmental Awareness.** The respondents showed a "very high" overall level of environmental awareness. Awareness that the world is very beautiful - it's God's gift to us (balance of nature) was rated highest, followed by the earth -- for the future generations too (finiteness of resources), the earth is fragile and dying. I must have to take care of it, heal and save it the best way I can. I can do a lot (interdependence), and everything must go somewhere and ends somewhere (materials cycle) with mean ratings ranges from 4.21 to 5.00. The very high level of the respondents' environmental awareness of the four aforementioned themes could be an effect of the lessons discussed usually in biology classes like nature is beautiful, the earth is finite, everything is connected to everything else, and everything must go somewhere.

On the other hand, the respondents have "high" level of environmental awareness of Man: God's Caretaker {Stewardship), The Earth is Rich with Natural Resources (Diversity and Stability), and Most of the Earth's Resources are now Depleting (Change) with mean ratings from 3.41-4.20.

The very high level of environmental awareness of the respondents should be maintained but the high level of awareness should be improved through education. This could be done by giving opportunities to the students to develop a personal connection with nature, incorporating media literacy into every school subject, or using the school as an experimental or demonstration site in implementing environmental awareness.

**The Extent of Practice of the Respondents towards** the
**Seven Environmental Themes**

The overall item mean ratings on the extent of practice of the respondents towards the seven environmental themes namely: stewardship, finiteness of resources, diversity and stability, change, material cycle, balance nature, and interdependence are shown in Table 2.

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Table 2. Overall item mean ratings on the extent of practices of the respondents towards the seven environmental themes.

| Extent of Practices on the Seven Environmental Themes | 5 | DR |
|---|---|---|
| 1. Man: God's Caretaker (Stewardship) | 3.96 | G |
| 2. The Earth – For the Future Generations Too (Finiteness of Resources) | 4.22 | VG |
| 3. The Earth is Rich with Natural Resources (Diversity and Stability) | 4.25 | VG |
| 4. Most of the Earth's Resources are now Depletina (Chanae) | 3.99 | G |
| 5. Everything Must Go Somewhere and Ends Somewhere {Materials Cycle) | 4.07 | G |
| 6. The World is Very Beautiful-it's God's Gift to Us (Balance of Nature) | 4.01 | G |
| 7. The earth is fragile and dying. I must have to take care of it, heal and save it the best wav I can. I can do a lot (Interdependence) | 4.08 | G |
| a. At home | 4.15 | G |
| b. In Public Places | 3.95 | G |
| c. In the Communitv Where I Belona | 3.93 | G |
| Overall | 4.08 | G |

| Norm: Statistical Range | Descriptive Equivalent Item | Overall |
|---|---|---|
| 4.21-5.00 | Very Often (VO) | Very Good (VG) |
| 3.41-4.20 | Often (O) | Good (G) |
| 2.61-3.40 | Sometimes (S) | Poor (P) |
| 1.81-2.60 | Seldom (Se) | Very Poor (VP) |
| 1.00-1.80 | Never (N) | Needs Improvement (NI) |

Stewardship or Man: God's Caretaker. The respondents have "good" practice on stewardship or man as God's caretaker (5=3.96). It is also observed that they have highest regards in loving, protecting, and caring for the earth and all its resources, but lowest regard in avoiding buying materials like clothing, bag, belts, shoes, decorations, and body paraphernalia that are made up of animals' body parts. The findings mean that they have good practice in protecting the environment.

**Finiteness of Resources or the Earth -For the Future Generations Too.** The extent of practice of the respondents on "finiteness of resources or the earth–for the future generations too" was found to be "very good" as supported by the computed mean of 4.22. The respondents should practice the growing of seedlings for use in the next seasons since this item was rated lowest by the respondents.

**Diversity and Stability or the Earth is Rich with Natural Resources.** The respondents have "very good" extent of practice along "diversity and stability or the earth is rich with natural resources" with overall mean rating of 4.25. This implies that the respondents utilized resources properly.

**Most of the Earth's Resources are now Depleting (Change).** The respondents have "good" extent of practice on the theme "most of the earth's resources are now depleting or changing" with mean rating of 3.99. This is supported by their frequent activities of just walking when travelling short distances to help regulate oil resources, using soap rather than detergent, using firewood rather than LPG in cooking, and discussing the importance of forest in water with peers.

**Everything Must Go Somewhere and Ends Somewhere (Materials Cycle).** The respondents have "good" extent of practice on the environmental theme that everything must go somewhere and ends somewhere (materials cycle) as backed up with the mean rating of 4.07. This means that the respondents dispose properly their wastes and they often recycle.

**The World *is* Very Beautiful. It's God's Gift to Us (Balance of Nature).** The respondents have "good" level of practice on the environmental theme that the world is very beautiful-it's God's gift to us (balance of nature) with mean rating of 4.01. All the items rated were "often" done by the respondents as supported by the fact that the computed mean values fall within the range of 3.41-4.20. This implies that the respondents habitually keep places clean and beautiful, avoid burning solid wastes, do not support mining exploration, and minimize the use of cosmetics.

The earth is fragile and dying. I must have to take care of *it,* heal and save it the best way I can. I can do a lot (Interdependence).

At Home. The extent of environmental practice of the respondents on the theme "on the earth is fragile and dying, I must have to take care of it, heal and save it the best way I can. I can do a lot (interdependence)" is "good" with an overall mean rating of 4.15. Out of 11 indicators rated, the respondents rated five items "very often", but six were rated "often" only. This result implies that they commonly ensure cleanliness of their homes and toilet bowls, do not smoke and discourage smoking, switch off lights in the morning, and others.

**In Public Places.** The respondents have "good" extent of practice on "interdependence" in public places with mean rating of 3.95. They also claimed that oftentimes, they cover their nose when a vehicle passes by or when people beside them smoke, suggest to drivers to tone down stereos and video machines, and help reducing plastic accumulation by bringing a basket when going to the market.

**In the Community Where I Belong.** The respondents have "good" extent of practice "on the earth is fragile and dying, I must have to take care of it, heal and

save it the best way I can. I can do a lot (interdependence) in the community. This is supported by the overall mean rating of 3.93. This result suggests that they often practice caring the environment in their community.

Overall Extent of Practices on the Seven Environmental Themes. The respondents have only "good" overall extent of practice on the seven environmental themes with mean rating of 4.08. The very good practice along diversity and stability (= 4.25) and finiteness of resources (= 4.22) should be maintained but the good practice along stewardship (= 3.96), change (= 3.99), balance of nature (5= 4.01), materials cycle (5= 4.07), and interdependence (= 4.08) should be improved.

To achieve a higher level of environmental practice, the UNP community should provide an environmental policy. This could be done by providing measures on public information, consultation and education. This conforms to Agenda 21 of UNEP (1985), Tipton, K. J. (2005) and environmental laws of the country on promotion of environmental awareness of the population as one of the fundamental challenges facing environmental policy.

**The attitude of the respondents towards the different environmental issues in relation to the different environmental themes.**

In this part of the study, the respondents were asked to express their feelings, ideas, opinions, and/or attitudes toward cutting of trees, road widening, squatting, mining, forest burning/forest fires, river drilling, quarrying, hunting, use of inorganic fertilizer, and industrialization. This was done to solicit opinions reflective of the attitude of the respondents on the different current environmental problems. Result of the analysis is presented in Table 3.

**On Cutting of Trees.** All the respondents did not favor the cutting of trees. The following are responses of those who expressed their attitude on the issue:

"Cutting of trees is the most dangerous act of man just to suffice his needs. A quote says "it takes one tree to make a thousand match sticks, but it takes one matchstick to burn thousands of trees"; "Trees can help in preventing floods, soil erosion, and/or land slide"; "Trees can mitigate the effect of hot weather. However, if there's really a need to cut trees, it should be replaced with a ratio of 1:10"; "Cutting of trees will decrease the volume of potable water". These were some of the expressions of the respondents showing that they like to protect and conserve the trees/forests.

Table 3. Respondents' attitude toward the issues on the seven environmental themes.

| Issues | Favor | | Not favor | |
|---|---|---|---|---|
| | f | % | f | % |
| Cutting of trees | - | - | 100 | 100 |
| Road widening | 36 | 36.00 | 64 | 64 |
| Squatting | 2 | 2.00 | 98 | 98 |
| Mining | 3 | 3.00 | 97 | 97 |
| Forest burning/fires | - | - | 100 | 100 |
| River drilling | 5 | 5.00 | 95 | 95 |
| Quarrying | 1 | 1.00 | 99 | 99 |
| Hunting | 1 | 1.00 | 99 | 99 |
| Use of Inorganic fertilizer | 11 | 11.00 | 89 | 89 |
| Industrialization | 22 | 22.00 | 78 | 78 |
| Overall | **8** | **8** | **92** | **92** |

**Road Widening.** The majority (64 %) of the respondents did not favor road widening. The 36 (36%) respondents who favored the issue reasoned out that: "mode of transportation will be easier and faster", "this is good to avoid traffic", "part of industrialization/globalization"; it is beneficial to decongest traffic"," bane and bone effects", and it should be limited". It is observed that despite the disagreement of the majority of respondents on the road widening issue, many still believed in its positive consequence like decongesting traffic.

**Squatting.** Almost all (98%) the respondents did not favor squatting but they did not provide reason for their choice. This may be due to the fact that it is only a problem in the major cities of the country but not in the provinces.

**Mining.** The majority (97%) of the respondents did not favor mining. Only 3 were in favor. The respondents who did not favor mining believed that the activity can cause landslides and is detrimental to the health and lives of all living things. They proposed that it should be stopped to avoid the loss of lives and damage of nature.

**Forest burning/forest fires.** All the 100 respondents did not support forest burning/forest fires for the reason that it can cause several effects to life and property. This may also imply that the respondents are highly aware that the forest is very important not only to animals but to humans as well.

**River** Drilling. The majority (95%) of the respondents did not favor river drilling because they believed it should remain untouched. Therefore, there is a need to inform the respondents on importance of drilling the river.

Quarrying. Almost all (99%) of the respondents did not favor quarrying. Only one supported the quarrying activity. This finding conforms to the above finding that the respondents did not favor river drilling. Perhaps, they associated drilling with quarrying because the latter is usually happing near the rivers.

Hunting. Almost all (99%) of the respondents did not favor hunting. Only one (1%) supported the activity. Similar with the disagreement of the respondents on forest burning, they also did not favor hunting because they were aware that it can cause extinction and it can damage the stability of the environment.

**Use of Inorganic Fertilizer.** The majority (89 or 89%) of the respondents did not favor the use of inorganic fertilizer. Only 11 (11%) were in favor. This is supported by their high awareness on the effect of inorganic fertilizer to soil and water as evinced by the previous findings.

**Industrialization.** The majority (78%) of the respondents did not favor industrialization. Only 22 (22%) were in favor, provided that sustainable development be considered.

As a whole, it is observed that the 98 percent of the students of UNP have unfavorable attitudes to the cutting of trees, forest burning/forest fires, quarrying, hunting, road widening, squatting, mining, river drilling, use of inorganic fertilizer and industrialization. This implies that the students have favorable and positive attitude towards the environment as manifested by their feelings, ideas, opinions against the issues included in this study, and their very high level of awareness and good practices on the seven environmental themes. This result conforms to the study of Balmaceda (2008) that Tingguians of Abra displayed a good attitude, very high level of awareness, and high extent of practice regarding the protection and conservation of the environment.

**Significant Relationship between the Awareness and Practice of the Respondents** on the Seven Environmental Themes

The computed overall correlation coefficient of .65 shows positive relationship between the awareness and practices of the respondents on the seven environmental themes. To decide whether it is significant or not, the figure was

converted into a t-test statistics. The calculated t-value of 11.09, which is higher than the t-tabular value of 1.98 shows that there is a significant and substantial relationship between the level of awareness and extent of practice of the respondents along the seven core messages of environmental education namely: stewardship; finiteness of resources; diversity and stability; change; materials cycle; balance of nature; and interdependence.

The above finding conforms to the statement of Glenn (2008) that the success of determining the issues and concerns governing the environment depends on how well students understand and view the environment and its complex processes. Students need not only be aware but more so, they need to comprehend their environment so that, in the future, they can become better stewards. Students' attitudes and perceptions toward the environment could significantly influence sustainability of life in the future.

## CONCLUSIONS

Majority of the respondents are 17 years old, female, Bachelor of Secondary Education (BSEd), and are exposed to televisions. The respondents have a very high level of environmental awareness. Specifically, they have a very high level of awareness on balance of nature, finiteness of resources, interdependence, and materials cycle, and a high level of awareness on stewardship, diversity and stability, and change. The respondents have good practice on the overall environmental themes, stewardship, change, balance of nature, materials and interdependence, and a "very high" practice on diversity and stability, finiteness of resources. All the respondents did not favor the cutting of trees, and forest burning/forest fire; majority of them are against road widening, squatting, mining, river drilling, quarrying, hunting, use of inorganic fertilizer, and industrialization. Hence, they have positive and favorable attitudes towards the environment. There is a significant relationship between the level of awareness and extent of practice of the respondents along the seven core messages of environmental education. This means that the students' high level of environmental awareness has a bearing on their very good environmental practice.

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## RECOMMENDATIONS

Based on the conclusions, the researcher recommends that the high environmental awareness and good practices of the respondents be improved to its highest level. Likewise, the favorable attitude of the respondents on the environmental issues should be maintained. This could be done by developing an Environmental Education Program taking into consideration the specific needs and problems of the students. This may be in the form of training, seminars, workshops, and the like and exposure of the students to improve their environmental practices like field trips, community visits, projects, or community Immersion and extension.

The University should provide the students different sources of information on the environment like leaflets to be posted on the bulletin boards; laws and ordinances protecting the environment should be strictly implemented in the University; and, for a generalizability of environmental awareness among UNP students, another study should be conducted focusing on the knowledge of UNP student populace about the environment.

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