

# Investigation of Cognitive and Affective Attitude of Students toward Environment and Their Environmental Behavioural Intention to Join Environmental Movement and Energy Conservation

<sup>1</sup>Damianus Abun, Ph.D, <sup>2</sup>Theogenia Magallanes, Ed.D, <sup>3</sup>Mary joy Encarnacion, Ph.D, <sup>4</sup>Francisco Alkalde, Ph.D, <sup>4</sup>Kathleen A. Somera, CPA

<sup>1</sup>Divine Word College of Vigan and St. Benedict College of Northern Luzon, Philippines

<sup>2</sup>St. Benedict College of Northern Luzon, Philippines

<sup>3</sup>Divine Word College of Vigan, Philippines

<sup>4</sup>Divine Word College of Vigan, Philippines

**Abstract:** The study wanted to investigate the cognitive and affective attitude of students toward environment and its relationship with their environmental behaviour, intention to join environmental movement and Conserve energy. In order to strengthen the study, theories related to human attitude and human behaviour, the influence of human attitude toward behaviour and attitude toward environment were discussed. Related studies were also reviewed to strengthen the theories. The study used descriptive correlational study. The population of the study was all Senior High School students of Divine Word College of Vigan. The data were gathered through validated questionnaires. In order to analyse the data, statistical tools were used such as weighted mean was used to determine the level of cognitive and affective attitude toward environment and environmental behaviour, while the Pearson r was used to determine the correlation between cognitive and affective attitude toward environment and environmental behaviour. The study found that students have very high on cognitive and affective attitude toward environment particularly on anthropocentric and eco-centric view of the environment. However, though the students have very high anthropocentric and eco-centric cognitive and affective attitude but as a whole the attitude does not correlate to the environmental behaviour but there is a correlation between positive eco-centric cognitive attitude toward environment and personal conservation behaviour.

**Key words:** *Cognitive attitude, affective attitude, anthropocentric, eco-centric attitude, Environmental movement activism, personal conservation behaviour.*

## I. Introduction/ Rationale

Issues on climate change, the increase of earth's temperature are central issues of our time and no one should deny it, though certain country still denies the realities of our time. Let us take an example the statement of Scott Pruitt, the appointed head of EPA (US Environmental Protection Agency) under President Donald Trump, as cited by Daily Inquirer (2017) when stated that the CO<sub>2</sub> (Carbon dioxide) is not primary contributor to global warming. This statement is contradicting the original EPA's stance that "Carbon dioxide is the primary greenhouse gas that is contributing to recent climate change." (DiChristophere, 2017). All know that CO<sub>2</sub> is a chemical compound composed of one carbon and two oxygen atoms. It is present in the earth's atmosphere at a low concentration and act as a greenhouse gas. Greenhouse gas is a gas that absorbs and emits radiant energy emitted from earth's surface and reradiating it back to the earth's surface, thus contributing to the greenhouse effect. Carbon dioxide, methane and water vapour are the most important greenhouse gases (Mann, n.d). Therefore, one of the solutions is to reduce CO<sub>2</sub> emissions. Thus, such statement goes against the scientific consensus that underpins Paris Agreement which more than 190 world leaders agree to lower emissions that lead to global warming. Such confusing statement from a powerful country create

confusions about the cause of global warming which may lead to weak responses of other countries on how to mitigate global climate change. Though there have been efforts initiated by different countries to solve environmental problems however, most of the solutions offered are not also based on systematic and scientific study (Abun, 2017).

We believe that the global climate change is anthropogenic in nature in the sense that it is the result of human activity or human behaviour toward the environment. It is the question of how human treats the environment. Our behaviour toward the environment is caused by our attitude or perception toward the environment. Thus, one of the solutions to the problem is to go back to the human attitude and ask what is wrong with the human attitude. In this case wrong attitude or perception of human being toward environment is one of the causes of environmental problem which lead to global warming. The behaviour of human being toward environment can be positive or negative depending on his attitude. If the person sees the environment as object of pleasure, then he will use the environment to increase his pleasure which means using the environment as object to be used. Going along with such argument, it is necessary that in order to solve environmental problems reviewing human attitude toward environment is a necessary. Correcting our wrong attitude toward the environment can solve or mitigate the environmental problem (Abun, 2017). This is the reason why the researcher pursues the topic to find out the attitude of human being toward the environment. This is to see if the human attitude affects the degree of human intention to join environmental movement and support conservation activities.

### **The Objective of the Study**

The purpose of the study is to provide scientific information to school management in order to create environmental policies in the campus. There have been a lot of efforts done by the campus on how to mitigate environmental problems, but those efforts are not product of study but product of individual reflection. The efforts are not sustained because the root cause of the problems is not identified. Identifying the root cause of the environmental problems is important and environmental education can be introduced in the curriculum.

### **Theoretical Framework**

#### **Understanding Human Attitude**

Attitude is an individual's disposition to react to certain object, behaviour, person, institution, event or other discriminable aspect of the individual's world (Ajzen, 1993). Ajzen contended that there can be a lot of definitions of attitude from different theorists, however, there is a common agreement among them that attitude has its evaluative dimension (Bem, 1970, Edwards, 1957, Fishbein&Ajzen, 1975). In the sense that dimensions of attitude can be measured and evaluated. Ajzen (1993) recognized that though attitude is inaccessible to observations because it is within the person's mind or it is latent, but it can be measured through the reaction or responses of the person toward the object of the attitude which may be favourable or unfavourable toward the object, persons, institution, events or situations. There are three categories of responses or reactions and they are *cognitive, affective and conative responses* (Allport, 1954, Hilgard, 1980, Rosenberg &Hovland, 1960). These are manifestations of salient or latent attitude which is unobservable (Ajzen, 1993). *Cognitive component* refers to the beliefs and thoughts about the subject, the object, the person, the institution, the event, etc. It is about the perception and information of the person toward the subject, object or the person. *Affective component* of attitude is an emotional reaction toward the subject, object or the person. It is how one feels when he/she is confronting the subject, object, the person or the institution. It is still a psychological reaction which may be verbal or nonverbal expression of feelings toward the subject, object, the person or the institution. Such reaction may be negative or positive. While *conative component* of attitude is the effect of the attitudes toward a behavioural intention or how the attitude affects one's behaviour. These may include plans, intentions and commitments to a planned behaviour. These are the three components of attitude and therefore, attitude is a multidimensional construct.

The question can be raised in relation to the origin of attitude: where does it come from? According to Ajzen (1993), a person develops such attitude perhaps as a result of watching television program or may be other kind exposures or experiences. But Abun (2017) went deeper to answer that question in relation his argument on how to solve environmental problem. According to him, that environmental problem is a result of human behaviour and destructive human behaviour is originated from the culture and thus solving environmental problem is to revisit the culture that have influenced the mind of people toward the environment. He contends that attitude is originated from the culture where the person is raised. His argument was based on the ideas of anthropologists such as Donald (2002), Hofstede as cited by Brown (1995). Donald (2002) argued that culture is playing important role on our brain functioning

and even brain structure. She has pointed out that language has the biggest impact on brain structure but that culture influences brain functioning to a great extent as she writes:

The social environment includes many factors that impinge on development, from bonding and competitive stress to the social facilitation of learning. These can affect brain functioning in many ways, but usually they have no direct influence on functional brain architecture. However, symbolizing cultures own a direct path into our brains and affect the way major parts of the executive brain become wired up during development. This is the key idea behind the notion of deep enculturation... This process entails setting up the very complex hierarchies of cognitive demons (automatic programs) that ultimately establish the possibility of new forms of thought. Culture effectively wires up functional subsystems in the brain that would not otherwise exist.

The idea of culture and its effect on brain functioning indicates the power of culture over the formation of the mind and ideas of people about everything around them (Abun, 2018). Donald's view is similar to what Hofstede as cited by Brown (1995) as he argued that culture is the collective programming of the human mind that distinguishes the members of one human group from those of another. Hofstede pointed out clearly that that culture is reflected in how people think, how people view things or attitude. To elaborate the idea of Hofstede, Amstrong (1996) contend that there is a relationship between cultural dimensions and ethical perceptions. In other words, ethical attitude is formed by a particular culture. One perceives certain object, subject, person or institution to be negative or positive, favourable or not favourable because he/she has been taught by the culture of a particular society where he/she is living. What he/she learns from the culture will be his/her ideas about certain subject, object or events, etc. that he/she will encounter.

### **Understanding Human Behaviour**

To understand the root cause of human behaviour, it would be helpful to revisit the idea of William James, a pragmatist, a behavioural psychologist, as cited by Lawler (2006). James is against the idea that all human behaviour is shaped by experience, but it is shaped by the brain or the mind. Though James recognized that humans are ruled by their instincts as other animals do, but what make humans behave the way they do and how they behave the way they do is different from animals. James went on to explain that though humans are animals with the most instincts, but they will never react automatically to the instincts, the way inferior animals do because humans have the mind or the reason. It is the role of reason. Reason has to create another impulse to neutralize another impulse.

To complicate further the root cause of human behaviour, Ridley (2011) turns his attention to the nature versus nurture debate to bring the first popular account of the root of human behaviour with this unique question: "what makes us who we are?" This question is related to the main question of why humans behave the way they do and how they behave the way they do. The immediate answer to these questions may point to the very essence of human being that differentiates it from animal which the reason or the mind is. But Nohria, and Lawrence (2003), instead of pointing at reason or mind as the source of human behaviour, she pointed out four drives or qualities that shape human behaviour. According to her, these drives or qualities are important to understand why humans behave the way they do. These qualities or drives are conflicting, and they do not work automatically. They force us to make deliberate decisions and choices with certain degree of liberty. According to this argument, drives or qualities that shape our human behaviour are first, drives to gain object, bodily and emotional experience, maintaining life and improving one's social status in relation to others. Second, drive to create relations, to belong to a group and create a long terms relationship and caring for others. Third, drive to gain insight including understanding one's self and one's surroundings. Fourth, drives to control and defend. These are the qualities for us to understand why we behave in a certain way. In other words, human behaviour is driven by purposes to be accomplished, not just like other animals.

The later argument brings us to the theory of planned behaviour of Ajzen (1985, 1987, Ajzen& Madden, 1986). Theory of planned behaviour (TPB) is an extension of theory of reasoned action to explain the relationship between attitudes and behaviour within the human action. Reasoned Action Theory (RAT) argues that reason for action will predict how individual will behave based on their pre-existing attitude and behaviour intention. The theory argues that an individual will behave based on the expected outcome the individual expects to achieve as a result of performing such behaviour (Fishbein&Ajzen, 1975, Ajzen&Fishbein, 1980). If RAT focuses on the reason, while the central attention of Theory of Planned Behaviour or TPB is the individual's intention to perform a given behaviour. There are three independent determinants of intention. First determinant is the attitude toward the behaviour. At the level, the person who perform certain behaviour must evaluate if the behaviour in question is favourable or not favourable. Second determinant is social factor or subjective norms. At this level, the person who perform the act must evaluate if the

society is in favour or not in favour of such act or behaviour. Third is the novel antecedence of intention. This refers to the perceived ease or difficulty of performing the behaviour and it is assumed to reflect past experience on performing the behaviour and anticipated impediments and obstacles in performing the behaviour. It suggests that the more favourable the attitude and subjective norms with respect to a behaviour, and the greater the perceived behavioural control, the stronger should be an individual's intention to perform the behaviour under consideration (Ajzen, 1993).

In short, the theory of planned behaviour argues that the stronger people's intention to perform certain behaviour, or the stronger people's intention to achieve their behavioural goals the more likely they engage in such behaviour. However, Ajzen (1993) cautions us that the degree of success does not depend only on intention but there are circumstances that may prevent us to realize the behaviour in consideration and these may include opportunities and resources such as time, money skills, and other necessary requirement to perform such behaviour. These factors represent the actual control over the behaviour. Beyond that, since TPB is concerned with the perceived behaviour, the particular perceived behaviour may not be carried out due to lack of information about the behaviour, the requirements have changed and when other unpredicted elements have entered into the situation.

### **The influence of attitude toward Behaviour**

In psychology, an attitude is defined as a set of emotions, beliefs, and behaviours toward a particular object, person, thing, or event (Banaji&Heiphetz, 2010). It is a learned tendency to evaluate or perceived things in a certain way and therefore one can have positive or negative evaluation or perception of certain objects, experiences, practices, etc. The evaluation or perception of a person toward certain object or experience is not isolated from experiential exposure. It has been a common understanding and agreement that attitudes are results of experience, upbringing/education and social interactions. Experience or upbringing or education can have powerful influence over attitudes. However, since attitude is not independent from environment or experience, thus it is also accepted that attitudes are dynamics in the sense that it is enduring and the same time it can also be changed (Cherry, 2019).

Most of the early researches on attitude accepted as a given that attitude influenced the behaviour. The background of those studies was influenced by the ideas of the early social psychologists that attitude is a key to understand human behaviour (Thomas & Znaniecki, 1918, Watson, 1925). This idea was taken for granted for quite some time until the time that later studies proved otherwise. Some investigators challenged the earlier assumption through field studies on the relationship between attitude and behaviour and their studies found that there was no correlation or little correlation between attitude and behaviour. For example, Corey (1937), Freeman & Ataev, (1960) as cited by Ajzen (1993) conducted a study on the college's students' attitude at the beginning of the semester and provide multiple opportunities to cheat by allowing them to score their own test. His test found that there was no correlation between students' attitude and their cheating behaviour (Ajzen, 1993, p.74). Even later studies supported the study of Corey (1937). For example, Dean (1958) conducted a study on attitude toward labour unions and participating in labour union meetings, and his study found no correlation. The similar study was also done by Wicker and Pomazal, (1971) on the attitude toward participating a subject in social psychology and actual participation in social psychology class. Their studies found no correlation.

The finding of later studies particularly the study of Wicker (1969) seem to discourage the original idea of early social psychologists that attitudes is the key to predict behaviour. The results of those studies have questioned the importance of studying the personal disposition and behaviour. By 1970s most social psychologists accepted the negative verdict of the relation between attitude and behaviour. Instead of studying the relation between attitude and behaviour, they encouraged the study of social context and norms as determinant factor in predicting the behaviour or human action (De Fleur & Westie, 1958, Deutscher, 1969). However, given those negative result, other social psychologists, particularly Ajzen and Fishbein (1977, 2000,) still maintain that attitude is still key to predict the behaviour (Allport, 1968). Allport (1968) still considered attitude to be "the most distinctive and indispensable concept in contemporary American Social Psychology" (p. 59). Other social psychologists who were against the negative finding of early research argued that the inconsistencies are not with the attitude and behaviour itself, but it may happen because of many factors such as response biases, multidimensionality of attitudes, and moderating variables. In terms of response biases, they argue that there is a tendency to give socially desirable responses on attitude and personality inventories and along this point, they recommended the need to use attitude measures that are less subject to systematic biases (Ajzen, 1993). In relation to multidimensionality of attitudes, they pointed out that most attitude measurement technique resulted in a single score representing the respondent's overall positive or negative reaction to the attitude object. According to them, focus on a single dimension did not do justice to the complexity of the attitude construct (Allport, 1935). Single construct is against attitude as multidimensional construct which include cognition, affective and conation component (Rosenberg

&Hovland, 1960). Lastly, the inconsistencies are due to moderating variables. They argued that the degree of attitude behaviour consistency was assumed to be moderated by factors related to the person performing the behaviour such as self-awareness, self-efficacy, self-monitoring, experience, self-confidence, even feeling and lack of information or knowledge. They also pointed out to the situation as moderating variable such as time pressure or circumstances surrounding performance of the behaviour (Ajzen, 1993).

The recent studies conducted by Abun (2018) and Fitzsimmons and Douglas (2005) confirmed the consistency of attitude and behaviour. Abun (2018) measured the relationship between environmental attitude and environmental behaviour and the study found that environmental attitude predicted the environmental behaviour of the students and employees toward the environment. Further, he also conducted a study on the entrepreneurial attitude and future intention to establish a business and the finding also indicated a correlation. The study of Fitzsimmons and Douglas (2005) also found that entrepreneurial attitudes are significant in explaining career decision in the future and their intention to go into business.

### **Attitude toward Environment**

Attitude is the how you think, believe or feel about someone or something. It is a learned predisposition to respond or behave in a consistently favourable or unfavourable manner with respect to a given object (Eilam & Trop, 2012). It is a product of culture and exposure and therefore, the attitude of human being toward environment is the product of culture and experience. People's views on the environment reflects their culture and experience related to environment. Culture is about people's belief, values and practices which affect human behaviour. Therefore, environmental attitude means people's beliefs regarding environmentally related activities or issues (Schultz, Shriver, Tabanico, & Khazian, 2004). It affects human behaviour toward the environment (Hines, Hungerford, & Tomera, 1987, Kaiser, Wölfing, & Fuhler, (1999).

There are different views or attitude toward the environment, and they are anthropocentrism, eco-centrism (Pierce & Lovrich, (1980), Poortinga, Steg., & Vlek, (2002) but Stern and Dietz's (1994) classified views on the environment into three views: Biocentric concern, egoistic concern and altruistic concern. *Anthropocentrism* views human being as a separate entity or being and higher than the nature. It is only human being that has intrinsic value, while the nature is considered as resources to be exploited by human being for its welfare. Thus, Kortenkamp and Moore (2001) calls for moral evaluation of such view because of the negative effect of such view toward the environment. When nature is purely viewed in its instrumental value, thus the environment is exploited for human welfare. This view emphasizes human dominance over nature. On the contrary, *ecocentrism* stance against it. Ecocentrism recognizes nature-centred system of values and recognizes the inherent value of all living beings on the planet regardless of their usefulness for human being (Mackinnon, 2007) and thus it demands ethical relationship between human being and the environment. This view considers human equal to animals, plants, and lands. Each part of earth is inseparable of humans or it is ecosystem and it maintains the belief that all living and non-living things have intrinsic value no matter its monetary value for human use. Thus Singer (1990) calls for respect for sentient beings. This view acknowledges interdependence and fosters equity between human and non-human being. In this case, human is not considered to be higher than non-human beings (Evans, 2019). It recognizes that all human beings and non-human beings are product of long evolutionary process and are interrelated in their life processes. Interrelation between the two beings recognizes the mutual and reciprocal relationship (Leopold, 1987). In other words, non-human beings contribute to the life of human being and without it, human cannot survive (Abun, 2017). One cannot live without clean nature because when the air and water are polluted, human and other beings cannot survive.

Besides of the two major views, we have egocentric view of the environment which prioritizes individual development over the environment. It pursues its own greed without considering the effect of its greed to the natural environment. Those who adopt this value will behave environmentally as long as it benefits him/her. While altruistic view of environment argues that individuals will engage in pro-environmental behaviours when there are environmental benefits, and critically, *also* when there are personal benefits. Following this concept, one is concerned with the environment as long as it does not go against his benefits. Lastly is bio centric view of the environment regards human and non-human beings as one community of life. This view recognizes that in order to live a good life or healthy life, one must live in co-existence with other non-human beings. It just means that human must recognize that each member of the community has its own intrinsic value which demands respect. Therefore, human being must preserve the existence of non-human beings for their own good. Consequently, since all are belonged to one community, therefore all are subjected to extinction and human life cannot exist without the non-human (Taylor (19860 as cited by Findly, 2015).

### **Environmental Behaviour**

Human behaviour is a deliberate act of man with certain motive and purpose in mind. Thus, environmental behaviour means how human response to the environmental problem. It is an individual behaviour that contribute or not contributing to the sustainability of the environment (Abun, 2017). Human behaviour toward environment is either constructive or destructive. It has been recognized that environmental problems are anthropogenic in nature, in the sense that it is manmade problem. The root cause is not something outside of human beings themselves. Human beings are the main actors to be blamed. In the end, our behaviour is either mitigating or exacerbating or aggravating environmental problems (Jarreau, 2014). The root cause of this behaviour is human values, beliefs, attitudes and intentions. Therefore, solving environmental problem is not just simply activities such as planting trees, conservation, recycling but it is also education that change the mind set of people toward the environment.

Behaviour toward environment can be classified as pro environmental behaviour and anti-environmental behaviour. Pro-environmental behaviour refers to behaviours that contribute to environmental sustainability such as conservation of energy, avoiding waste, recycling, avoiding activities that are harmful to the environment, creating new solutions to avoid environmental problems such as renewable energy, embracing green technology, and environmental activism (Mesmer-Magnus et al., 2012: p. 160). These behaviours can be seen when people are minimizing the use of their air condition in their offices, rooms, taking public transportation when they go to office, and participate in actions that are intended to protect the environment such as protest against mining, against climate change, etc. These behaviours are deliberate act of individual person or students even without the imposition from the authority or organizational control. While anti-environmental behaviour means behaviours that are not pro sustainability which includes behaviours such as wasting natural resources, overuse of fossil fuel, and other kinds of behaviours that are damaging the environment such as exploiting natural resources for economic growth (Corral-Verdugo, et. al., 2003).

Specific environmental behaviour that we may explore in this paper is *environmental movement activism and personal conservation behaviour*. Environmental movement has been increasing and has been classified into scientific, social and political environmental movement. In this case, there are groups that are focusing on finding scientific solution to the environmental problems, groups that advocate the sustainable management of resources and stewardship of the environment through changes in public policy and individual behaviour in dealing with the environment and groups that are focusing on increasing public awareness of the environmental problems. Beside environmental movement, personal conservation behaviour has become important too in solving environmental issues. Most acknowledged that our personal environmental behaviour plays important role in solving environmental challenges. Thus, improving the awareness of individual people on the effect of their behaviour toward the environment is one way of mitigating the environmental problems (Abun, 2017).

## **II. Related Studies**

Though there were some studies in the early days that rejected the relationship between human attitude and human behaviour, such as Corey (19137), Freeman & Ataov, (1960) however, later social psychologists dismissed their findings. According to later researches, the inconsistencies occurred because of other factors such as response biases, the complexity of attitudes and other moderating variables such as experience. Therefore, Ajzen and Fishbein (1977, 2000) still defends the original idea that attitude is a key predictor to human behaviour. This was in support of the earlier idea of Allport (1968) who argued that attitude is the most distinctive and indispensable key predictor to human behaviour. Therefore, the current study uses such concept to investigate other studies that support the relationship between attitude and behaviour. Most of the current studies seem to support the idea of Ajzen and Fishbin (1977, 2000) and Allport (1968).

Abun and Agoot (2017) tried to investigate the attitude of Senior High School students of Divine Word Colleges in Region I, Philippines toward the environment and their environmental behaviour. The study was based on the idea that environmental problems are caused by human attitude toward the environment. The study found that most dominant attitude among students were anthropocentric and eco-centric attitude and the correlation was found between eco-centric attitude and environmental behaviour particularly on environmental movement activism and personal conservation behaviour. This finding was like the finding of the previous study of Holt (1995) on the relationship between pro-environmental attitude and pro-environmental behaviour, that pro-environmental behaviour is a key predictor to the pro-environmental behaviour among Air Force Students Institute. The same finding forwarded by the study of Singh and Karnika (2013) that environmental is key factor in influencing the environmental behaviours. The

study of Maleki and Karimzadeh (2011) also confirmed the relationship between environmental attitude and conservation behaviour and environmental knowledge and environmental behaviour. These attitude can also be caused by the exposure to the environment and along this line, Goldberg, et.al (2018), tried to focus his study on the groups who are affected directly by the environmental problems particularly tourist, tourism operators and residents who are near the coral reef. His study found that most people who are affected directly by the effect of environmental problems have the strongest pro- environmental behaviour such as recycling, participation in conservation activities, and climate change mitigation activities. These people are taking more aggressive action to protect the environment compared to those who are not exposed to the direct effect of the environmental problems.

Attitude toward the environment is a result of exposure or experience and education. It is recognized that people form certain attitude toward certain object or a person depending on their experience or education. Therefore, attitude can be changed because it is attached to experience and education. The control is education. Several studies have been conducted to determine the influence of education and attitude toward environment and their environmental behaviours. Johnson, and Činčera (2015) tried to study the changes in attitude toward the environment and behaviours toward the environment after the education. They explore two groups of children from two countries, USA and Czech, who participated in an earth education program which is called, "Earth Keepers", which was designed to affect both attitudes and behaviour. In the first group, the environmental attitudes and behaviours of children of the United States before and after participating in the program were compared. The study found that children changed their environmental attitudes after the program, and they were the most likely to demonstrate new pro-environmental behaviours. In the second group, a sample of Czech students who had participated in the Earth Keepers program. Most students changed their attitude toward the environment during the program. Their behaviour also changed one year after. While others who did not join the program did not changed. The study suggests the importance of attitude change in promoting environmental behaviour. The finding was like the previous finding of Heyl, et.al (2013). They investigated the different environmental attitude of students from different courses. It was found that there was a significant difference between students pursuing diplomas related to the environment and those who are not. There were no significant differences detected between students enrolled in different courses. Similar study was also conducted by Raman (2016) on the different attitude toward environment and behaviour of Ajman University of Science and Technology (AUST) students. Results revealed wide differences in the environmental attitudes and behaviours between the undergraduate students enrolled in environmental sciences course and others who did not study the course yet. Further, the studies argued that positive environmental attitude predicts the positive environmental behaviour. Related finding confirmed the above findings that environmental knowledge plays key role in predicting positive environmental behaviour (Kaiser, et.al, 1999) and therefore Eilam and Trop (2012), Geiger, et.al (2018), Ogunjinmi, and Oniya, (2016) call for the strengthening of environmental education to improve environmental knowledge in order to change attitude and behaviour toward the environment.

The above studies presented the same findings and in support of the Theory of Ajzen and Fishebin (1977, 2000) and Allport (1968). However, it cannot also be denied that there were some studies presented contradictory findings like the study of Hini, et.al (1995), Kasapoglu and Turan (2008) that there is no significant relationship between attitude and behaviour. It was also forwarded by the study of Wright and Klyn (1998) on 21 countries on the relationship between attitude and behaviour toward environment. Their study found that certain country had a relationship between attitude and environmental behaviour, but other countries did not have a relationship. Therefore, according to Wright and Klyn (1998) that the correlation between environmental attitude and environmental behaviour may not be generalized to all places or countries.

Given the above findings, there were more studies supporting the relationship between environmental attitude and environmental behaviour. Therefore, we can say that environmental attitude is a strong predictor toward environmental behaviour. Though there were few studies who rejected the correlation, but we believe that the inconsistencies may be caused by methodology and bias when they are answering the questions, lack of a unified concept of attitude, lack of measurement correspondence between attitude and behaviour on a general level and lack of consideration of behaviour constraints beyond people's control (Kaiser & Fuhrer, 1999).

**Conceptual Framework**

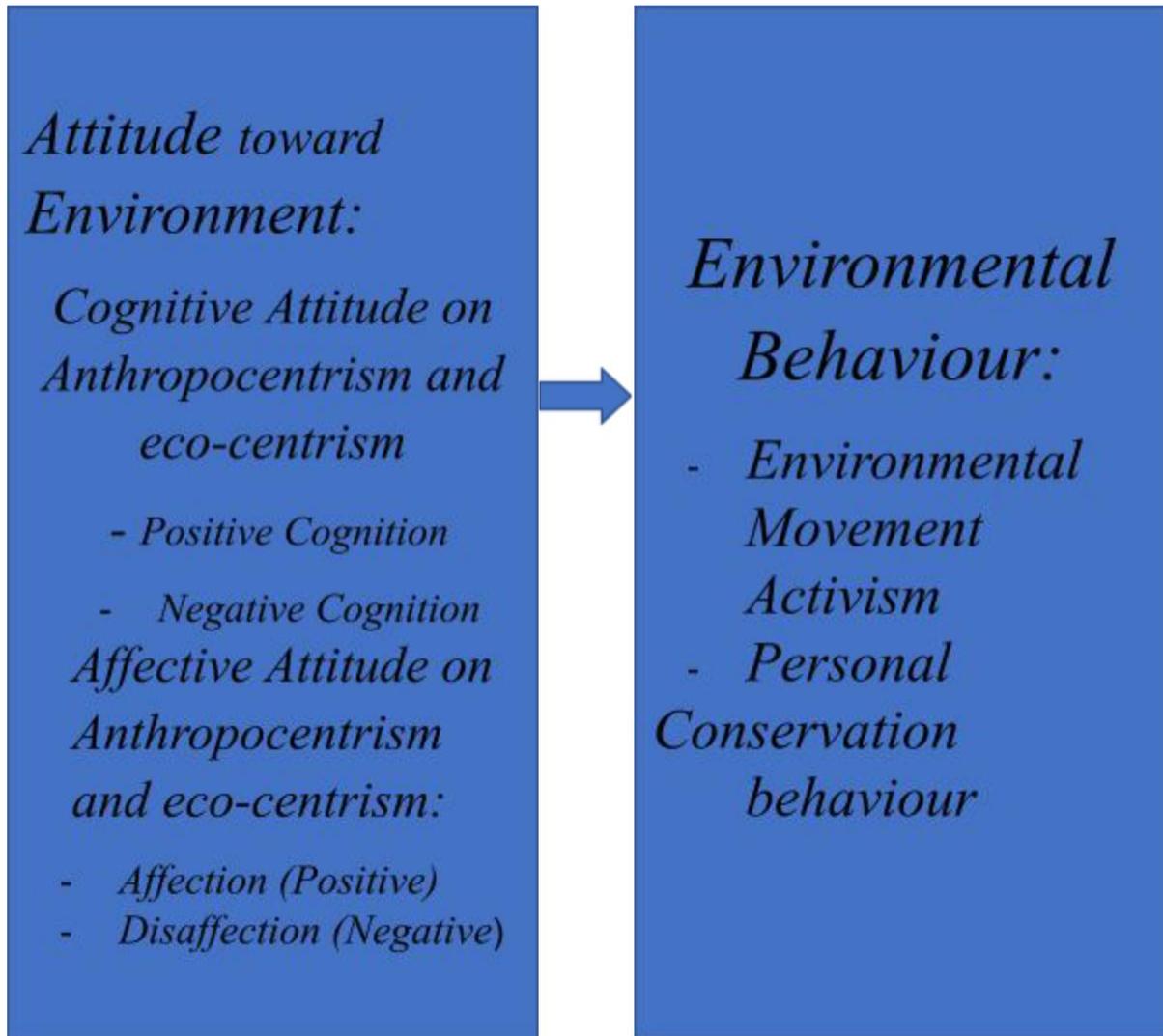


Figure 1: The conceptual framework reflects the concept of the study. It shows the relationship between attitude toward the environment and environmental behaviour. Attitude toward environmental affects the environmental Behaviour.

**Statement of the Problems**

The study seeks to determine the relationship between attitude toward environment of the students and their environmental behaviour. It specifically wants to answer the following questions:

1. What is the positive and negative anthropocentric cognitive attitude of students toward environment?
2. What is the positive and negative eco-centric cognitive attitude of students toward the environment?
3. What is the positive and negative affective anthropocentric attitude of students toward environment?
4. What is the positive and negative eco-centric affective attitude of students toward environment?
5. What is the environmental behaviour of students in terms of:
  - a. Environmental movement activism
  - b. Personal conservation behaviour?
6. Is there a relationship between cognitive attitude toward environment and environmental behaviour of the students?
7. Is there a relationship between affective attitude toward environment and environmental behaviour of students?

### **Assumption**

The study assumes that environmental attitudes affect the environmental behaviour of the students. It is also further assumed that environmental attitude and environmental behaviour can be measured, and the answers are objective.

### **Hypothesis**

Ajzen and Fishbein (1977, 2000) and Allport (1968) have been defending the earlier theories of social psychologist that attitude is a key to understand human behaviour (Thomas & Znaniecki, 1918, Watson, 1925). In consistence with the theory, the current study argues that human attitude toward the environment affects the environmental behaviour toward the environment.

### **Scope and Delimitation of the Study**

The study limits itself to measuring the cognitive and affective anthropocentric and eco-centric attitude of students toward the environment and their environmental behaviour specifically along environmental movement activism and personal conservation behaviour. This study is limited to Senior High School Grade XII students of Divine Word Colleges in Ilocos Region, Philippines, 2019.

## **III. Research Methodology**

The study was carried out through appropriate research methodology such as research design, data gathering instruments, population, locale of the study, data gathering procedures and statistical treatment of data.

### **Research Design**

Since the study is a quantitative research and therefore it used descriptive correlational research design and aided by inquiry to determine the level of attitudes of students toward research and behavioural intentions to join environmental movement and personal conservation. The nature of descriptive research is to describe what is found in the data collected through questionnaires and statistical treatment. It is also used to describe profiles, frequency distribution, describe characteristics of people, situation, phenomena or relationship variables. In short, it describes "what is" about the data (Ariola, 2006, cited by Abun, 2019).

In line with the current study, descriptive correlational method was deployed. The study determines the level of attitude toward environment and its correlation with the plan to join environmental movement and engage in conservation. This was to determine what the dominant attitude of students toward the environment were and what particular attitudes affect the behavioural intention to join environmental movement and conservation.

### **Locale of the Study**

The locale of the study was Divine Word College of Vigan. Divine Word College of Vigan belonged to the Province of Ilocos Sur and located within the heritage city of Vigan, Ilocos Sur, Philippines. Divine Word College of Vigan is managed by the Congregation of the Divine Word Missionaries or known as Society of the Divine Word or in Latin, Societas Verbi Divini (SVD).

### **Population**

The population of the study was composed of all Senior High School Grade XII students of Divine Word College of Vigan. Since the total numbers of Senior High School students are limited, and therefore total enumeration or 350 students is the sampling design of the study.

### **Data Gathering instruments**

The study utilized validated questionnaires. The questionnaires were adapted from Environmental Attitude Inventory (EAI, Milfont & Duckitt, 2005). From the EAI, the researcher selected the inventories related to the current study.

### **Data Gathering Procedures**

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In the process of data gathering, the researcher sent a letter to the President of the College, requesting him to allow the researcher to float his questionnaires in the college. The researcher personally met the President and students and requested them to answer the questionnaires.

The retrieval of questionnaires was arranged between the President's representative and the researcher with the help of employees and faculty of the college.

### Statistical Treatment of Data

In consistent with the study as descriptive research, therefore descriptive statistics was used. The weighted mean is used to determine the level of attitude toward the environment and behavioural intention to join environmental movement and conservation and the Pearson r was used to measure the correlation of attitudes toward the environment and the behavioural intention to join environmental movement and conservation.

The following ranges of values with their descriptive interpretation will be used:

Statistical Range	Descriptive Interpretation	Overall Descriptive Rating
4.21-5.00	Strongly agree/Strongly disagree	Very High
3.41-4.20	Agree/Disagree	High
2.61-3.40	somewhat agree/ somewhat disagree	Moderate
1.81-2.60	Disagree/ Agree	Low/High
1.00-1.80	Strongly disagree/ strongly agree	Very Low/Very High

## IV. Findings

The findings of the study are presented below according to the arrangement of the statement of the problems. The study wanted to find out the cognitive and affective attitude of students toward environment and how it affects their environmental behaviour. Therefore, study was guided by the following questions:

**Problem1. What is the positive and negative anthropocentric cognitive attitude of students toward environment?**

**Table 1. Positive and Negative cognitive attitude on Anthropocentrism of Students toward Environment**

ANTHROPOCENTRIC COGNITIVE ATTITUDE	Mean	DR
<b>POSITIVE COGNITION</b>		
1. I know that nature is important because of what it can contribute to the pleasure and welfare of humans.	4.64	SA
2. I believe that healthy planet is very important for human happiness and human reproduction	4.63	SA
3. I believe that environmental protection is important because people's lives are dependent on it.	4.46	SA
4. I know that conservation is important for improving the quality of life and people's standard of living	4.33	SA
5. I know that environmental protection is important for the well-being of animals and for the well-being of humans.	4.67	SA
6. I believe that deforestation causes shortage of lumbers for future generation	4.42	SA
7. I believe that rain forest is important for the development of new medicines.	4.22	SA
<b>WEIGHTED MEAN</b>	<b>4.48</b>	<b>SA</b>
<b>NEGATIVE COGNITION</b>		
1. I am not sure if environment is not more important than human beings.	1.42	SD
2. I do not know if environment should serve the welfare of human beings.	1.54	SD
3. I am not sure if environment serves its purpose if it is useful for human beings	1.58	SD
4. I am not really certain if trees are important if they are useful for human.	1.53	SD
5. I do not know if respecting the environment is the same as respecting the human beings	1.76	SD
6. I am not sure if environment is important if it is connected to human life	1.59	SD
<b>WEIGHTED MEAN</b>	<b>1.57</b>	<b>SD</b>

**Legend**

4.21-5.00	<i>strongly agree/Strongly disagree</i>	<i>Very High</i>
3.41-4.20	<i>Agree/Disagree</i>	<i>High</i>
2.61-3.40	<i>somewhat agree/somewhat disagree</i>	<i>Moderate</i>
1.81-2.60	<i>Disagree/ Agree</i>	<i>Low/High</i>
1.00-1.80	<i>Strongly disagree/ strongly agree</i>	<i>Very Low/Very High</i>

On the positive cognition, as the data presented, it shows that as a whole, students had a very high anthropocentric cognitive attitude toward environment as indicated by its weighted mean of 4.48 which means strongly agree or very high in terms of anthropocentric attitude. This confirms previous findings on the anthropocentricism view of students toward environment (Abun, 2017). Even when taking them singly, the data reveals that the students strongly agree that nature is important because of what it can contribute to the pleasure and welfare of humans (4.64), that healthy planet is very important for human happiness and human reproduction (4.63), that environmental protection is important because people’s lives are dependent on it (4.46), that conservation is important for improving the quality of life and people’s standard of living (4.33), that environmental protection is important for the well-being of animals and for the well-being of humans (4.67), that deforestation causes shortage of lumbers for future generation (4.42), and that rain forest is important for the development of new medicines (4.22).

Since the students have high positive- cognitive attitude toward anthropocentricism view of the environment, consequently, on the negative side, students have very low anthropocentric cognitive attitude which means that students strongly disagree. In other words, students strongly agree with positive - cognitive attitude along anthropocentrism. Students support their positive cognition. As it is indicated in data, it appears that students strongly disagree that “they are not sure if environment is not more important than human beings” (1.42), that “they do not know if environment should serve the welfare of human beings” (1.54), that “they are not sure if environment serves its purpose if it is useful for human beings’ (1.58), that “they are not really certain if trees are important if they are useful for human” (1.53), that “they do not know if respecting the environment is the same as respecting the human beings” (1.76), that “they are not sure if environment is important if it is connected to human life” (1.59). Thus, from the negative cognitive attitude on anthropocentricism, as a whole students really strongly disagree if the environment is not for the welfare of human beings (1.57). Thus, the negative cognitive view on anthropocentricism supports students’ position on their anthropocentric view of the environment, that environment is really meant for human beings.

**Problem 2: What is the positive and negative eco-centric cognitive attitude of students toward the environment?**

**Table 2. Positive and Negative cognitive attitude on Eco-centrism of Students toward Environment**

<b>ECO-CENTRIC COGNITIVE ATTITUDE</b>	<b>Mean</b>	<b>DR</b>
<b>a. POSITIVE COGNITION</b>		
1. I believe that the nature has its own value that we need to respect	4.64	SA
2. I know that the relationship between nature and humans are equal.	4.30	SA
3. I am sure that human and nature are interconnected as one eco-system.	4.27	SA
4. I am fully aware that human life is dependent on quality nature	4.26	SA
5. I know that nature must be treated as how we treat human beings	4.39	SA
6. I believe that human has moral responsibility to respect all living and non-living beings on the planet	4.46	SA
7. I know that humans are subject to the laws of nature	4.50	SA
<b>WEIGHTED MEAN</b>	<b>4.41</b>	<b>SA</b>
<b>b. NEGATIVE COGNITION</b>		
1. I do not believe that protecting the environment is an important issue	1.45	SD
2. I do not believe nature is valuable for its own sake	1.51	SD
3. I am not sure if humans are subject to the laws of nature	1.50	SD
4. I do not believe that the relationship between human and nature are equal and mutual	1.68	SD

5. I am not sure if we need to treat the environment as human beings	1.52	SD
6. I do not know if human and the environment are in an ecosystem	1.62	SD
7. I do not believe if human has moral responsibility to respect nature	1.69	SD
WEIGHTED MEAN	1.57	SD

Legend

4.21-5.00	<i>Strongly agree/Strongly disagree</i>	<i>Very High</i>
3.41-4.20	<i>Agree/Disagree</i>	<i>High</i>
2.61-3.40	<i>somewhat agree/somewhat disagree</i>	<i>Moderate</i>
1.81-2.60	<i>Disagree/ Agree</i>	<i>Low/High</i>
1.00-1.80	<i>Strongly disagree/ strongly agree</i>	<i>Very Low/Very High</i>

In relation to the eco-centric view of the environment, the data reveals that as a whole, the students have a very high eco-centric attitude toward environment which is revealed through its weighted mean of 4.41 which means very high or strongly agree. When the data are taken singly, it also shows that students strongly agree that nature has its own value that we need to respect (4.64), that the relationship between nature and humans are equal (4.30), that human and nature are interconnected as one eco-system (4.27), that human life is dependent on the quality of nature (4.26), that nature must be treated as how we treat human beings (4.39), that human has moral responsibility to respect all living and non-living beings on the planet (4.46), and that humans are subject to the laws of nature (4.50).

Looking into their negative cognition on the eco-centric attitude toward environment, it supports their positive cognition on the eco-centrism. Therefore, as a whole students strongly disagree that nature does not possess intrinsic value in itself as indicated by its weighted mean of 1.57 which means strongly disagree. When the data are taken singly, it really reveals that students *strongly disagree* with the statement, “I believe that the nature has its own value that we need to respect” (1.45), “I do not believe nature is valuable for its own sake” (1.51), “I am not sure if humans are subject to the laws of nature” (1.50), “I do not believe that the relationship between human and nature are equal and mutual” (1.68), “I am not sure if we need to treat the environment as human beings” (1.52), “I do not know if human and the environment are in an ecosystem”(1.62), and “I do not believe if human has moral responsibility to respect nature” (1.69).

Thus, from the negative cognition along eco-centrism indicates that students strongly agree that nature has its own value that one needs to respect, nature is valuable for its own sake, humans are subject to the laws of nature, the relationship between nature and nature are equal and mutual, humans need to treat the environment as human beings, humans and environment are in one ecosystem, and humans have moral responsibility to respect nature.

**Problem3: What is the positive and negative affective anthropocentric attitude of students toward environment?**

**Table 3. Positive and Negative affective attitude on Anthropocentrism of Students toward Environment**

a. ANTHROPOCENTRIC AFFECTIVE ATTITUDE	Mean	DR
<b>POSITIVE AFFECTION</b>		
1. I am happy to have a clean nature because it contributes to quality of life of human	4.62	SA
2. I am happy when people protect the environment for future generation	4.66	SA
3. I am happy to live in a healthy environment because it makes me healthy	4.58	SA
4. I am happy to see the rainforest because human can use it for research and develop medicines for human use	4.61	SA
5. I am happy to conserve energy use because it can improve the quality of life of humans	4.51	SA
6. I am happy to see clean water because fish and other living beings live in it and it is good for human’ s life	4.64	SA
7. I am happy to live in a place that has a clean air because I am protected from sicknesses	4.61	SA
1		
<b>WEIGHTED MEAN</b>	<b>4.60</b>	<b>SA</b>

<b>b. NEGATIVE AFFECTION</b>		
1. It does not make me sad to see natural environments destroyed because it will affect human life	1.67	D
2. It does not make me sad to see forest cleared for agriculture because it will affect the animals' life and human's life	1.68	D
3. I am not sad to see people cut trees as they wish because it will shortage the supply of lumber for future generation	1.76	D
4. I am not sad to see air and water polluted because it affects the health of human beings	1.68	D
5. I am not sad to see people throw plastic garbage everywhere because it can affect human health	1.61	D
6. I am sad to protect the environment because it does not help human development	1.69	D
7. I am sad to hear people go against mining because it is the sources of everything than human enjoys	1.74	D
<b>WEIGHTED MEAN</b>	<b>1.69</b>	<b>SD</b>

**Legend**

4.21-5.00	<i>strongly agree/Strongly disagree</i>	<i>Very High</i>
3.41-4.20	<i>Agree/Disagree</i>	<i>High</i>
2.61-3.40	<i>somewhat agree/ somewhat disagree</i>	<i>Moderate</i>
1.81-2.60	<i>Disagree/ Agree</i>	<i>Low/High</i>
1.00-1.80	<i>Strongly disagree/ strongly agree</i>	<i>Very Low/Very High</i>

Based on the data presented, it reveals that on the positive side of affection, as a whole, students have a very high affection toward anthropocentric view of environment as indicated by its weighted mean of 4.60 which means strongly agree or very high. When the overall rating is taken singly, it really shows that students strongly agree that they are happy to have a clean nature because it contributes to quality of life of human (4.62), they are happy when people protect the environment for future generation (4.66), they are happy to live in a healthy environment because it makes me healthy (4.58), they are happy to see the rainforest because human can use it for research and develop medicines for human use (4.61), they are happy to conserve energy use because it can improve the quality of life of humans (4.51), they are happy to see clean water because fish and other living beings live in it and it is good for human's life (4.64), and they are happy to live in a place that has a clean air because they are protected from sicknesses (4. 61).

While on the negative side of affection toward anthropocentric view of environment, it appears that students strongly support their positive affection toward anthropocentric view of the environment as indicated by its overall mean rating of 1.69 which means strongly disagree. Therefore, when taking them singly, it shows that students strongly disagree with the following statements such as, "It does not make me sad to see natural environments destroyed because it will affect human life"(1.67), "I am not sad to see people cut trees as they wish because it will shortage the supply of lumber for future generation" (1.76), "I am not sad to see air and water polluted because it affects the health of human beings" (1.68), "I am not sad to see people throw plastic garbage everywhere because it can affect human health"(1.61), "I am sad to protect the environment because it does not help human development" (1.69), and "I am sad to hear people go against mining because it is the sources of everything than human enjoys" (1.74).

Thus from the negative affection toward environment, it really reveals that students actually strongly agree that it makes them sad to see natural environment destroyed because it affects human life, to see people cut trees as they wish because it will shortage the supply of lumber for future generation, to see air and water polluted because it affects the health of human beings, to see people throw plastic garbage everywhere because it can affect human health, and they are happy to protect the environment because it help human development and happy to hear people go against mining.

**Problem 4:** What is the positive and negative eco-centric affective attitude of students toward environment?

**Table4. Positive and Negative eco-centric affective attitude**

POSTIVE ECOCENTRIC AFFECTIVE ATTITUDE	Mean	DR
<b>POSITIVE AFFECTION</b>		
1. I am happy to see many people respect nature as they respect human beings too	4.69	SA
2. I am excited to join activities protecting the environment	4.57	SA
3. I am grateful to people who are protecting the environment because it means they are protecting me too	4.66	SA
4. I am excited to inspire others to join activities protecting the environment because it needs to be sustainable	4.61	SA
5. I am happy to live in a healthy environment	4.63	SA
6. I am sad see forest cleared for agriculture	4.40	SA
7. It make me sad to see natural environment destroyed	4.59	SA
<b>WEIGHTED MEAN</b>	<b>4.59</b>	<b>SA</b>
<b>NEGATIVE ECOCENTRIC AFFECTIVE ATTITUDE</b>		
1. I am not excited to join activities protecting the environment	1.67	SD
2. I am not happy to people who are against mining and illegal logging	1.63	SD
3. I am not sad to see forest cut for human use	1.67	SD
4. I am not sad at all to see forest cleared for agriculture	1.60	SD
5. It does not make me sad to see the natural environment destroyed	1.64	SD
6. it does not make me sad to see the rain forest disappearing	1.64	SD
7. It does not make me happy to conserve energy use everyday	1.66	SD
<b>WEIGHTED MEAN</b>	<b>1.64</b>	<b>SD</b>

Legend

4.21-5.00	<i>strongly agree/Strongly disagree</i>	<i>Very High</i>
3.41-4.20	<i>Agree/Disagree</i>	<i>High</i>
2.61-3.40	<i>somewhat agree/somewhat disagree</i>	<i>Moderate</i>
1.81-2.60	<i>Disagree/ Agree</i>	<i>Low/High</i>
1.00-1.80	<i>Strongly disagree/ strongly agree</i>	<i>Very Low/Very High</i>

Based on the data presented, it is clear that on the positive eco-centric affective attitude of students toward environment is considered very high because as a whole, the students have very high or strongly agree assessment on eco-centrism as indicated by its weighted mean of 4.59 which means strongly agree or very high. Even when taking them singly, the data shows that students are happy to see many people respect nature as they respect human beings too (4.69), excited to join activities protecting the environment (4.57), grateful to people who are protecting the environment because it means they are protecting them too (4.66), excited to inspire others to join activities protecting the environment because it needs to be sustainable (4.61), happy to live in a healthy environment (4.63), sad see forest cleared for agriculture (4.40), and sad to see natural environment destroyed (4.59).

On the negative eco-centric affective attitude toward the environment, as a whole, students have very low negative eco-centric affective attitude. They support their positive eco-centric affective attitude toward environment. It can be seen when they are taken singly, that students strongly disagree on the statements, "I am not excited to join activities protecting the environment (1.67), "I am not happy to people who are against mining and illegal logging" (1.63), "I am not sad to see forest cut for human use" (1.67), "I am not sad at all to see forest cleared for agriculture" (1.60), " It does not make me sad to see the natural environment destroyed" (1.64), "it does not make me sad to see the rain forest disappearing" (1.64), and "It does not make me happy to conserve energy use every day" (1.66).

## Investigation of Cognitive and Affective Attitude of Students toward Environment and Their.....

The negative eco-centric affective attitude of students toward environment indicates that students actually strongly agree that they are excited to join activities protecting environment, happy to people who are against mining and illegal logging, sad to see forest cut for human use, sad to see forest cleared for agriculture, sad to see natural environment destroyed, sad to see forest disappearing and happy to conserve energy every day.

**Problem4: 5. what is the environmental behaviour of students in terms of:**

a. *Environmental movement activism*

b. *Personal conservation behaviour?*

**Table 5a. Students' environmental Behaviour in terms of Environmental Movement Activism**

INDICATORS	Mean	DR
1.If I will have extra, income, I will donate some money to an environmental organization	3.78	A
2. I would like to join and actively participate in an environmentalist group	3.59	A
3.I would get involved in an environmentalist organization	3.47	A
4. Environmental protection costs a lot of money. I am prepared to help out in a fundraising	3.50	A
5. I will try to persuade others that the environment is important.	3.83	A
6. I would like to support an environmental organization.	3.86	A
<b>WEIGHTED MEAN</b>	<b>3.67</b>	<b>A</b>

Legend

4.21-5.00	<i>Strongly agree/Strongly disagree</i>	<i>Very High</i>
3.41-4.20	<i>Agree/Disagree</i>	<i>High</i>
2.61-3.40	<i>somewhat agree/ somewhat disagree</i>	<i>Moderate</i>
1.81-2.60	<i>Disagree/ Agree</i>	<i>Low/High</i>
1.00-1.80	<i>Strongly disagree/ strongly agree</i>	<i>Very Low/Very High</i>

As revealed on the table, it shows that as a whole, students' environmental behaviour in terms of environmental movement activism is 3.67 which is understood as agree or high. Even if taking them singly, the data manifest that students agree that if they will have extra, income, they will donate some money to an environmental organization (3.78), they would like to join and actively participate in an environmentalist group (3.59), they would get involved in an environmentalist organization (3.47), they are prepared to help out in a fundraising (3.50), they will try to persuade others that the environment is important (3.83), and they would like to support an environmental organization (3.86).

**Table 5b. Students' Behaviour toward Environment in terms of Personal Conservation Behaviour**

INDICATORS	Mean	DR
1. I try to save water or other natural resources as much as possible	3.97	A
2. I make sure that during the rainy season, I should not switch on the air-condition	3.76	A
3. In my daily life, I'm trying to conserve water and/or power.	3.68	A
4. Whenever possible, I take a short shower in order to conserve water.	3.37	SWA
5. I always switch the light off when I don't need it anymore.	4.05	A
<b>WEIGHTED MEAN</b>	<b>3.76</b>	<b>A</b>

Legend

4.21-5.00	<i>strongly agree/Strongly disagree</i>	<i>Very High</i>
3.41-4.20	<i>Agree/Disagree</i>	<i>High</i>
2.61-3.40	<i>somewhat agree/ somewhat disagree</i>	<i>Moderate</i>
1.81-2.60	<i>Disagree/ Agree</i>	<i>Low/High</i>
1.00-1.80	<i>Strongly disagree/ strongly agree</i>	<i>Very Low/Very High</i>

In terms of personal conservation behaviour, it manifests that as a whole, students have a weighted mean of 3.76 which means high or agree. Even when taking them singly, it appears that students agree to save water or other natural resources as much as possible (3.97), to make sure that during rainy season, they should not switch on the air-condition (3.76), they are trying to conserve water and power daily (3.68), always switch the light off when they don't need it anymore (4.05) and somewhat agree that they take short shower in order to conserve water (3.37).

**Problem 6: Is there a relationship between cognitive attitude toward environment and environmental behaviour of the students?**

**Table 6. Relationship between Cognitive Attitude toward Environment and Environmental Behaviour of the Students**

		ENVIRONMENTAL MOVEMENT ACTIVISM	PERSONAL CONSERVATION BEHAVIOR
POSITIVE-COGNITIVE ANTHROCENTRISM	Pearson Correlation	.003	.008
	Sig. (2-tailed)	.958	.897
	N	277	277
NEGATIVE- COGNITIVE ANTHROPOCENTRISM	Pearson Correlation	-.032	-.066
	Sig. (2-tailed)	.593	.272
	N	277	277
POSITIVE- COGNITIVE ECO-CENTRISM	Pearson Correlation	.118	.158**
	Sig. (2-tailed)	.051	.008
	N	277	277
NEGATIVE - COGNITIVE ECO-CENTRISM	Pearson Correlation	-.066	-.108
	Sig. (2-tailed)	.277	.073
	N	276	276

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Based on the Pearson r correlation, it shows that as a whole there is no significant correlation at 0.01 level (2-tailed) between cognitive attitude toward environment and environmental behaviour particularly on environmental movement activism and personal conservation behaviour. Even when taking them singly, there is no significant correlation between positive anthropocentric cognitive attitude and negative anthropocentric cognitive attitude and environmental movement activism and personal conservation behaviour. The same case with negative eco-centric cognitive attitude. However, there is a significant correlation at 0.01 level (2- tailed) between positive eco-centric cognitive attitude toward environment and personal conservation behaviour.

**Problem 7: Is there a relationship between affective attitude toward environment and environmental behaviour of students?**

**Table 7. Relationship between Affective Attitude toward Environment and Environmental Behaviour of the Students**

		ENVIRONMENTAL MOVEMENT ACTIVISM	PERSONAL CONSERVATION BEHAVIOR
POSITIVE ANTHROPOCENTRIC AFFECTIVE ATTITUDE	Pearson Correlation	.038	.076
	Sig. (2-tailed)	.547	.224
	N	258	258
NEGATIVE ANTHROPOCENTRIC AFFECTIVE ATTITUDE	Pearson Correlation	.032	.015
	Sig. (2-tailed)	.590	.804
	N	277	277
POSITIVE ECO-CENTRIC AFFECTIVE ATTITUDE	Pearson Correlation	.056	.084
	Sig. (2-tailed)	.349	.163
	N	277	277
NEGATIVE ECO-CENTRIC AFFECTIVE ATTITUDE	Pearson Correlation	-.027	-.076
	Sig. (2-tailed)	.659	.209
	N	277	277

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Based on the Pearson r correlation, it reveals that as a whole, there is no significant correlation at 0.01 level (2-tailed) between affective attitude toward environment and environmental Behaviour of the Students particularly environmental movement activism and personal conservation behaviour. Even when taking them singly, there is no significant correlation between positive and negative anthropocentric affective attitude toward environment and environmental movement activism and personal conservation behaviour. The same also with positive and negative eco-

centric affective attitude toward environment and environmental movement activism and personal conservation behaviour.

### **Conclusion**

Based on the findings, the study concludes that the students' positive anthropocentric cognitive attitude toward environment is very high and also with positive eco-centric affective attitude toward environment is also very high. However, on the negative side, both negative anthropocentric cognitive attitude and negative eco-centric affective attitude toward environment is very low. In other words, students have very high anthropocentric cognitive attitude toward environment and very high eco-centric affective attitude toward environment. It is also found that students' environmental behaviour particularly environmental movement activism and personal conservation behaviour is high.

However, the study found that as a whole there is no correlation between environmental attitudes and environmental behaviour. Therefore, the hypothesis of the study is rejected. However, there is a correlation between positive eco-centric cognitive attitude toward environment and personal conservation behaviour.

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