Planning Model of Population Education and Environment in State Elementary School in District of Simalungun Regency

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Abstract

The education of population and Environment as an educational program to nurture the students to have rational attitudes and behaviors and responsible for maintaining the balance of the environmental system. The purpose of this research is the creation of students 'responsibilities and the learning model of population and environmental education in elementary school students, who will form students 'attitudes and behaviors on actions that are appropriate to Environmental concept and the establishment of an alternative development of environmental population education in the District of Raya. The results of the study show that the environmental and student behaviour of the learners positively and significantly affects the students 'responsibilities in the school environment. The environmental and student behavior attitudes are positive and significant to the responsibilities of students in the school environment. The model of population education and the environment applied in the district of Raya is a discussion model, through a learning model with a student discussion will learn how to convey an idea to others and teach students about how to respect disagreements.

Keywords: responsibilities, learners, environtment, elementary school, learning models

1. Background

The education of population and Environment as an educational program to nurture the students to have a rational attitude and behavior and responsible in Daeng maintain the balance of the environmental system. The purpose of this research is the creation of students 'responsibilities and learning models of population education and the environment in elementary education students, who will shape the attitudes and behaviors of students in the Tindakan that fit Environment and the establishment of an alternative of the education development of the population environment in the Raya subdistrict. Products 'research results together with the environmental and behavioural attitudes of the students influence positive and significant responsibility for student responsibilities in the school environment. The environmental and student behaviours influence 63.1% in student responsibilities in the school environment. The model of population education and the environment applied in the district of Raya is a discussion model, through a learning model with a student discussion will learn how to convey an idea to others and teach students about how to respect disagreements.

The background of the population problem that needs to be addressed immediately is a problem caused by the increasing number of inhabitants. The growth of population that is too fast and not balanced by production costs will result in heavy pressures on the food, clothing, housing, employment, health facilities, education, security, and recreation. Thus, the problem of population is the present and future problem that asks the attention and care of the whole community.

The increasing population requires a variety of necessities and facilities fulfilling the needs of life, ranging from food, clothing, boards, and other integrative needs. Increasing human population is directly related to the fulfillment of life needs that almost entirely utilize natural resources. Growing food needs are being filled with modernization and mechanization of agriculture. The modernization of agriculture has a positive aspect of which can achieve the intensification and differentiation of production, but also contribute negative aspects such as the impact of pesticide use and insecticide to environmental quality. Increasing the needs of the clothing also indirectly spur increased production of cotton plantations, the negative that can arise from increasing the need of clothing is the effect of waste products from the textile industry. The need for a board demands exploitation of various natural resources, such as wood, sand, rocks, and some.

ISSN: 2005-4238 IJAST Copyright © 2020 SERSC The fulfillment of integrative needs, such as natural recreation also often produces negative effects in the form of natural destruction by human beings who are ignorant or ambition to dredge the wealth of natural potential. A factor that also raises the environmental crisis is excessive consumption and a wasteful consumption pattern. Excessive consumption demands a production system enlarging its capacity which means adding residual waste substances to the resulting industrial and residual waste of plastic masusia i.e. residual consumption in the form of wrapping material, especially plastic waste is a problem because it can not undergo biological recycling.

The increase in population is followed by a high population growth rate. This led to the need for high and sharp goods, services and residences demanding additional facilities and infrastructure to serve the needs of the community. However, Nature has limited environmental support. The continuously increasing needs will in turn cause the use of natural resources to be difficult to control and cause environmental damage. With the fact that large population growth is not accompanied by the good quality of the environment, feared environmental damage will become more. It is therefore necessary to know what role the education of the population is doing in overcoming the environment. The problem in this article is how the population education is the role of environmental conservation.

The environment is an inseparable part of the human being, because it is the man who forms the environment. Therefore, every human being must have responsibility to maintain its environment from any harmful threats such as flooding and landslides. Everyone has the right and a role in environmental management. This means that every individual has a responsibility to his or her environment. The development of science, technology that has been coupled with the massive growth of the industry to meet the demands of large population, has resulted in the declining quality of human environment. Lately, catastrophe in the form of flood hazards, forest fires, water pollution, soil and air, rising and decreasing temperature in some areas and pesticide poisoning are increasingly common. This threat from all aspects we need to realize and face to solve because the condition is now approaching a critical point. This happens because there is a large force that supports each other and strengthens the growth of the unlimited population to support and accommodate the garbage of his life and the infinite technology coupled with human attitude to Dominate and spend the natural environment. Crisis that threatens the system of life on Earth will be faced and need to be solved together. Population growth should be regulated, human attitudes in looking at nature and exploiting nature for self-life facilities must be changed and to the young generation need to be implanted a good attitude in the management of life and conscious systems The environment.

Deterioration of the quality of human environment that lasts so far will come to a level that will threaten the existence of human environment, high consumption patterns in society, the use of high technology and various inventions Physics, Chemistry has been together to be the cause of increasingly Theravada environmental quality. This situation becomes very severe because the community is not aware of the dangers that will arise as a result of residual consumption of materials that damage the environmental balance.

Environmental issues must be integrated with education, as education also plays an important role in preserving and preserving sustainability and environmental sustainability. Education to nurture children or students in order to have rational understanding, consciousness, attitudes and behavior, and be responsible about the reciprocal influence between residents and the environment in different aspects of life.

Environmental education is one of the important factors to minimize environmental damage and is an important means of generating human resources that can implement the principle of sustainable development. Environmental education is conducted as an effort to improve the understanding and awareness of the community in seeking resolution and prevention of environmental problems. Environmental education is a process of reorganizing educational institutions to develop their individual cognitive and affective functions and psychomotor skills by directing them to optimize their contributions to Quality of life, both micro and macro levels and family units, communities and nations with particular attention to the strategy of dynamics of environmental issues and clarifying concepts to foster the skills and attitudes required to To understand and appreciate between human relations, culture and physical environment. Therefore, controlling the population growth and preventing the deterioration of the environment because this is an important foundation that leads to the awareness of the Community environment. Environmental conditions that are very concern and over time continue to decline, as well as the natural symptoms that show it has seemed

more obvious. The higher the temperature of Earth and the seasons that are difficult to predict are examples of symptoms that we feel from the increasingly damaging environment as a real indication of the damage to nature.

Community awareness in a state of concern. Human behaviour reflecting ignorance, indifference, greed and the arrogance of human power has made the environment the target of unconscious action. Human greed has pushed to persecute the environment. Embedding the cultural values of environmental love to the nation's children through education bench is equally saving the environment from worsening damage. And it should begin now to minimize the possibility of developing elements of society that become environmental destroyers, it is deemed necessary to give education to the community, both through formal and Non-formal. In schools to colleges need to be taught environmental education. Environmental education that is in school has just slipped on certain materials that may be related to the environment.

The environmental education Program is felt to be an absolute need for one alternative to address the challenges of environmental problems developed today and in the future. Due to this, the PKLH position is assessed very important. Therefore the implementation of population education and environment in school and outside school education can be said to be a relatively long term program in the construction of population problems and environment. Based on this description, it is clear that the way to overcome the problem of population and environment is not only by carrying out the business of a very technical, but must be implemented with an educative and persuasive effort.

Schools that are educational institutions play a big role in shaping the character of a learner. Where teachers as facilitators can guide learners to learn about the environment education of both monolithic learning. As well as teachers as a personage of learners in relation to environmental education, a teacher or educational institution needs to provide moral invitations and provide a real example so that learners can and safeguard the environment on various occasions. With the learning of environmental education, students are expected to have the correct ethics and morality in looking at the environment in their interactions in life, acquiring basic knowledge and concerns about environment, changing behaviors and attitudes that are detrimental to nature and knowing how important it is to preserve the environment to avoid damage.

The education of population and Environment as an educational program to nurture the students or citizens to learn to have understanding, awareness, attitudes and behaviors are rational and responsible in order to maintain the balance Environmental system, the influence of the timbanl of the population and environment in the aspect of life and the use of natural resources wisely for the welfare of both spiritual and material life. That attitude and behavior is also reflected in both the social, political, economic, family welfare, state and human environment in general. Achievement of target and objectives is with strategy through educational approach of education institution, but can be said to have not achieved optimal results. In some schools, for example, implementing environmental education is only integrated with other subjects, such as sports education. IPA and IPS. The application of current environmental education is still visible. Looking at these conditions, it is important for us as educators not only to teach environmental education, but also to educate, invite and direct students to be environmentally conscious, because knowledge without awareness is theoretical, Not to the extent of its substance.

The habit of keeping the environment in the school will certainly affect the habits of learners at home, especially if until they are trained to develop creativity in environmental issues. Basically environmental issues are not only limited to the sustainability of the Earth, air, land and so on, but also the economic aspects, social relations, culture, education. Applying for an applicative environment education should be applied by each teacher of the subjects, not only focused on one subject, so that learners are accustomed to love his environment. The application of population education and environment can be done in many ways, such as the work of every weekend or Friday morning before the lesson begins, reforestation in the school environment so that the school created a green, Conducting a classroom cleaning competition, garden, as well as an environment miniature and the competition makes trash from woven. Thus the learners must be trained. Each student must be trained to dare to campaign for environmental issues, such as inviting the wider community to have awareness of environmental issues that start from the family environment. A fundamental problem about population education and the environment in research locations is the weakness of the education

system, where a lack of insight into the environment so that many problems occur, which will result in Damage in the environment itself.

Education pathway is considered strategic, because the problem of population and environment is in fact a humanitarian problem that closely relates to the system of value, norms, customs, culture and religion in controlling the population problem and environmental management. The education essentially serves as a place to bequeath the norms and cultural values as well as a container to introduce and nurture new norms that fit the demands of development and cultural development needs take place on society.

Based on the description above the author considers urgent to be obtained the solution, namely the problem: (1) How the environmental attitude, behavior and responsibilities of learners in elementary School of the state district? (2) How is the model of population education and environment in order to be treated in the school environment? With the aim of this research is the responsibility of the students and the learning model of population education and the environment in elementary education students, who will shape the attitudes and behaviors of students on the actions that correspond to the concept of Environment and the establishment of an alternative development of environmental population education in the sub-district, which is based on national curriculum or local content curriculum. So it is able to contribute to the curriculum in real in the framework of population education and environment.

2 Literature Overview

Today's environmental crisis can only be solved by making changes in the human perspective and behavior of nature fundamentally and radically. What it takes is a new lifestyle or lifestyle that not only concerns people per person, but also the culture of the environmental community that leads humans to interact in the New Universe [3]. The global environmental crisis we are experiencing today is actually sourced on philosophical fundamental mistakes in understanding or human viewpoints about themselves, the nature, and the human place in the whole ecosystem. In turn, this point of view gives rise to the mistaken behavior of nature [1].

With the magnitude of the population increases the need for clean water availability. Clean water is a fundamental necessity for the survival and feasibility of human life. The need for clean water is an important condition for human health [4]. Water sources of drinking water companies cannot compensate for the magnitude of the population, hence the society that is not served by the water of PAM, using groundwater for daily needs. This resulted in a reduced groundwater, ground loss, and sea water subsidence so that the water would not be utilized [7,9].

Environmental education includes the affective aspects of behaviour, values and commitments needed to build a sustainable society. Achieving this affective goal is usually difficult. In learning teachers need to include methods that enable clarification and internalization of values. In environmental education need to be raised or explained that in real life there is always a difference of values adopted by the individual. The difference in such values can complicate derive the fact, and can lead to contention. Therefore, environmental education needs to provide opportunities for students to build skills that can improve their ability to solve problems [6, 10,11]

Understanding of education is essentially inseparable from the circumstances of the environment, given from since its human birth until it grows and develops into adulthood has been heavily influenced by the circumstances surrounding the environment. So in the admit or not the foundation of the building thinking attitudes, human actions and others have been contracted in such a way by the things that occur in the environment. Education should be aligned with the values that occur in the environment, so that on one side of education is able to answer and provide a solution to the problems that occur in the environment. Where the environment is a place where we are the place to be self-sharpening, both in attitude, intellectually and in action. Education also has an important role to create a system that can deliver learners to an awareness of the significance of the environment [9.17]

The environment as a subject of education provides training to the students (1) to think as well as be proficient about all people's lives. The subject also trains thinking in a system, which uses the full time, which is yesterday-tomorrow. (2) The application of environmental education is applied to formal and informal education by inserting environmental education material into existing subject matter ranging from the concept of environmental preservation to the ways Things to do [20]

Environmental care Attitude

The environmental care attitude consists of three basic assumptions, such as attitudes, cares, and Ligkungan, in which the combined three words will have a corresponding meaning. Attitudes are divided into two approaches, namely 1) tricomponent, this approach looks as a combination of affective, behavioral, and cognitive reactions to an object that organizes individual attitudes; and 2) approaches arising from dissatisfaction with the Tricomponen approach, this approach looks at the attitude of only the affective aspect. Environmental damage is not separated from human activity it is caused in the utilization of human behavior environment is one factor of the occurrence of environmental damage [4.15]

Caring for the environment is the attitude and sleep that seeks to prevent damage to the surrounding natural environment and develop efforts to repair natural damage that has occurred. Attitudes and behaviors in relation to nature and the environment can be demonstrated include: (1) working hard, (2) Thinking ahead, (3) Appreciating health, (4) devotion. Environmental concern is the obligation of all mankind to nature. People as social beings are also obliged to interact with nature, the human being obliged to safeguard the environment and preserve the environment and prevent damage [20]

Student behaviour

Student behaviour is a response or reaction of a person to the stimulus of behavior owned by a person or community and all human activities or activities. Learners ' behaviour is influenced by knowledge, sensing or results of a person's idea of an object through its own senses and expressed in action, which is a tangible form of the knowledge and attitudes that [18]. Factors affecting human Behaviour are genetics, the size of a person's favorite level of behavior, social norms and personal behavioral control is one's belief in the difficulty of doing a behavior [4]. Three areas of conduct are cognitive, affective and psychomotor. Then its development, the realm of Behavior is (1) knowledge of human sensing results, or the results of know a person against the object through his senses. (2) Attitude is a person's closed response to the stimulus or tert object. (3) The Act or practice refers to the conduct expressed in the form of action, which is the tangible form of knowledge and attitudes that have been possessed [6.9].

Student responsibilities in school environtment

The responsibilities of students in the schools in the care of the environment, especially in the form of attitudes and actions that always try to prevent damage to the surrounding natural environment, in addition to developing efforts to repair natural damage that Already occurred [8]. Responsibilities and attitudes and actions that always strive to prevent damage to the surrounding natural environment, and develop efforts to repair natural damage that has occurred. Learners who have an awareness that they become part of an environment that is not separated from the environment will strive to do the best for their environment. This caring value of the environment is what is an attitude that is demonstrated with the level of human consciousness on the environment [9.12].

Responsibility for the level of environmental quality that learners have as a result of the learning process, can improve human care will preserve the power of the nature of the environment. Basically, with a sense of care and attitude will then be concerned about the environment and this is a human behavior or change that is consciously to the environment by the attitude of responsibility due to the mental environmental damage from the Indivisu [16]. To establish the value of responsibility for the environment as a basis of consciousness is very vital, needed personal that can encourage awareness raising, which will arise with the learning of the concept of education character Aimed at realizing the people of environmental insight and having the ability to manage the environment wisely [14].

The education of population and environment can be taught through various ways or models namely discussion, field practice activities, laboratory practice, seminars, debate. Students must actively be mentally reconstructed in order to construct knowledge, experience and skills which in turn will be enforceable in life and transferred to others. The place that is used as the object of study

varies among other residential environment, sewage, river, waste processing, household waste, landfill that is in the neighborhood or near school [3]

3 Research Methodology

There are 50 schools with a total of 4,412 students in the total number of public elementary schools in the district of Raya. As a population, all students of class V and VI of state Elementary School in Kecamatan Raya are 627 people, the reason for population intake in the class is because it understands the importance of the existence of the environment. The student sampling was conducted with a total population of 627 people. If the sample above from 100 should sample can be taken 10-50% [18a], then in this research samples were taken 25%, which is as many as 94 people meaning each State elementary school in the district of Raya is already represented, this is done to know Students ' opinions on attitudes, behaviors and responsibilities about population education and the environment thoroughly. The population for state elementary school teachers is 337 people, for sample teachers taken from the entire population to know the opinions on the population education model and the environment that can be applied in schools.

Data collection using poll method with Likert scale, data obtained is tested using IBM SPSS Software version 23. The data analysis method used to prove the hypothesis proposed in this study was to use multiple linear regression analyses. The parameters used in this study were to compare the significance values between the free variables with the bound variables.

Research variables for environmental care with indicators: habituation to maintain hygiene and environmental sustainability of the school, available landfills and handwashing places, bathroom conditions and clean water, saving habituation Energy, making Biopori in the school area, building wastewater well, doing habituation separating the type of organic and inorganic waste. The learner's behavioral variables are: honest, tolerances, demonstrating initiatives to address the problems within the closest sphere, respecting and maintaining respect, association with loving love and sacrifice, working with classmates who Different tribes. The variables of the students ' responsibilities in the school environment are: performing tasks without being told, disciplined, active participation in school activities, propose problem-solving, empathize with fellow classmates, perform social action, build The Harmony of class citizens.

4. Results and Discussion Result.

Overview of the location of the district of Raya research is the largest and widest district in Simalungun district. The district has an area of 328.50 Km2, with a geographical location bordered by the Raya district of Kahean and the District Silou Kahean, in the south bordered by Dolok Pardamean Sub-district, the West borders the district of Purba and Dolok Silou Sub-district, and the east is bordered by Panombeian Panei subdistrict. Raya subdistrict is an agricultural area, with agricultural land and non-paddy fields that are wide enough, can be reached \pm 30 Km from Pematangsiantar City, and the capital of Simalungun District is located in this district, precisely in Pematang Raya. The total public elementary School was 50, the number of 337 teachers, the number of students were 4,412, the ratio of total Murud to the school of 88 and the ratio of teachers to students of 13 people.

The influence of environmental care attitude, behaviour and responsibilities of learners the results of multiple linear regression analyses using SPSS program version 23, hence acquired regression coefficient as in the following table.

| | Tabel 1. Anova ^a | | | | | | | |
|-------|-----------------------------|---------------|----|----------------|----------|-------------------|--|--|
| Model | | Sum of Square | df | Mean Square | F | Sig. | | |
| | | Square | | oquare | | | | |
| 1 | Regressi on | ,090 | 1 | ,090 | ,00 7 | ,001 ^b | | |
| | Residual | 890,26 6 | 92 | 12,031 | | | | |
| | Total | 890,35 5 | 94 | | | | | |

Acquired F Count of 0.007 is right F table 3.11 where the F count is smaller than the F table or 0.007 < 2.61 with a significance rate of 0.00 < 0.01, thereby it can be concluded that collectively the environmental and student behaviour of the learners positively and significantly affects the students' responsibilities in the school environment. The environmental and student behaviour attitude is significant to the responsibilities in the school environment. To find out if each free variable has a significant effect on the bound variables, then compare T with T table.

Tabel 2. Results of Multiple Linear Regression Analysis

| B Std. Error Beta | | | |
|-----------------------------|--------|-------|--|
| (Constant) | 21,379 | 1,277 | |
| 227 | | | |
| Environmental care Attitude | ,415 | ,065 | |
| ,026 | 644 | 4.50 | |
| Student behaviour | ,644 | ,159 | |
| ,010 | | | |

Based on the results of multiple linear test, then obtained the equation of regression line as follows: $Y = 21,379 + 0,415 + 0,644X_2 + e$. The responsibilities of students in the school environment to improve environmental problems, all of which have a purpose to raise awareness so that the change of behavior of the community to be wise to the surrounding environment and efforts Prevention. With the responsibilities of students in the school environment has the advantage of: (1) providing information to other learners who are less understanding of the importance of protecting the environment, (2) can provide awareness Students of the importance of the environment, (3) can know how much sensitivity students are to surrounding environmental conditions, (4) Provide opportunities for everyone to gain knowledge, skills, attitudes and behaviors, motivation and commitment, which are necessary to work individually to know the effect of collectively X of Y conducted F-test which results are as follows in the following table.

Tabel 3. Determinasi

| Mode | R | R | Adjuste | Std. | Durbin |
|------|-----------|-------|---------|----------|--------|
| 1 | | Squar | d R | Error of | - |
| | | e | Square | the | Watso |
| | | | | Estimate | n |
| 1 | ,79 8ª | ,637 | ,631 | 1,068 | 1,810 |

From the analysis the results concluded that the environmental attitude and the behavior of the students affected 63.1% in the responsibilities of students in the school environment. To raise students 'awareness of the school environment the most important and must-do process is to touch the heart. If the awareness process has occurred then the change in attitude and mindset to the environment will also occur, then can be increased knowledge and understanding of environment and improvement of skills in managing environment. Departing from the problem, it is hoped that the education of population and environment become one solution to change so that problems arising from environmental damage can be solved. In principle, there are three main steps that can be taken to overcome the environmental damage that is (1) aware of problems, in fact everyone already knows the existence of environmental problems in the vicinity but the confusion must do what. (2) Identifying the root cause of the problem, of all environmental problems is the population explosion, consumption is more, inefficiencies. (3) Develop strategies to correct existing problems and prevent future occurrence. The environment can serve to enrich teaching materials, clarify the principles and concepts studied in the field of study and can be used as a student learning laboratory with the planting of environmentally caring foundation early to become the main solution To be done, so that

the rising generation has a provision of understanding of the environment. Environmental education is expected to educate students to behave in a caring environment.

Population and environmental education can be utilized by teachers when in school by creating a concentrated child situation to take care of the environment. The conditioning was done by the teacher integrating aspects of infrastructure, facilitated, learning process, school environment and creating conditions for learners in the educational and learning atmosphere. This condition is very easy to motivate learners to be obedient to the system in school school more if the school has a commitment to schools that care about the living environment of the soul go Green

Model of population and environment education in order to be treated in school environment. Learning of population education and living environtment with discussion model 48.1%, field Prkatek 41.5%, laboratory 4.7%, debate 5.6, seminar 0%. From these results it can be determined that the learning for environmental education that is most preferred by the teachers based on the experience of field is with the discussion model and is accompanied by the practice of fields. A discussion Model is a method that keeps learners active because all students have the opportunity to speak or dialogue with each other to exchange thoughts and information about a topic or problem, or to find possible facts and Evidence that can be used for solving a problem. By using the discussion method in teaching process learning mathematics is expected so that students are more active in learning, so that students are more passionate and eager to learn mathematics and can apply in daily life .

Discussion

Population education and the environment is one solution. The role of the Government is also much needed, meaning that there must be more attention to the education of population and environment. Thus in the application of population education and environment there must be a synopity between educators, students, society and government, so that the education of population and environment is not limited to black on white. It needs to be given the education of population and environment both monolithic and integrated all of the state elementary school in the district of Raya and the support of the institution leadership in the form of curriculum policy, namely By incorporating the educational subjects of population and the environment as compulsory subjects because the education of environment population is one solution to various problems that occur in the school environment, This is based on Pentin consciousness.

The model of population education and environment applied in the district of Raya is a discussion model. Changes in education curriculum may change annually. Learning systems can also be more creative, but there is one thing that can not be forgotten in the school learning methods that are discussions. This method although not all learners are pleased at first but have a very good impact for the future learners. Through discussion students can be accustomed to public speaking. It is undeniable that public speaking is one of the jobs that often presents stage fever. Therefore through a student discussion model will learn how to convey an idea to someone else. The learning Model of discussion will also teach students how to value disagreements. In social life disagreements are natural and commonplace. Before plunge into social life more

Teachers play an important role in the success of population and environmental education, to build lifestyles and to instill the principles of sustainability and to terrorize environmental ethics. The teacher started by showing the environmental problems faced in daily life around the students then followed by an active discussion to find the root of the problem and continued with the troubleshooting steps with The principles of sustainability and environmental ethics through active discussions in the classroom.

5. Conclusion

Based on the results of the research that has been done it can be concluded as follows:

- 1. Environmental and behavioral attitude affects the responsibilities of students in the school environment.
- 2. The model of population and environmental education in order to be applied in school environment is a discussion model.

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