

Learning Attitude and Awareness against Students in Cultured Environmental Success in Probolinggo

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Abstract

Active learning is necessary for the development of science and environmental issues, because it can indirectly address the social and environmental issues as well as environmental impacts including the environmental consequences of human behavior. Student success in a cultured environment in school is influenced by students' attitude and awareness towards environmental issues both environmental education in the school, home, and community. The research method used was a survey and data analysis techniques using the Generate Structural Component Analysis (GSCA). The results showed; 1) environmental education in the school a significant effect on students' knowledge, 2) environmental education in the school not significant effect on students' attitudes and awareness, 3) environmental education in the home significant effect on students' knowledge, 4) environmental education in the home not significant effect on attitude and awareness of students, 5) environmental education in the community a significant effect on students' knowledge, 6) environmental education in the community not significant effect on students' attitudes and awareness, 7) students' knowledge a significant effect on attitude and awareness of students, and 8) attitudes and awareness of students significant effect on student success cultured environment.

Keywords: learning, attitude, awareness, cultural environment

1. Introduction

Active learning is necessary for the good for the development of science and environmental issues, because it can indirectly address the social and environmental issues as well as environmental impacts including the environmental consequences of human behavior (Littledyke, 2008) and Cabuk and Karacaolu (2003) also stated that the learning environment is an issue of responsibility for everyone.

Hungerford *et al.* (1990) and Jurczak *et al.* (2003) argues that environmental learning program covers aspects of knowledge, attitudes, behaviors and habits that are tailored to the age level, knowledge, sources and its application in the daily life of students. Caring attitude towards the environment plays an important role in solving environmental problems in the future. Learning programs in the school environment can also affect the knowledge, attitudes and behavior of others (parents, teachers, and community members) through a process of influence between generations. The attitude of people towards environmental awareness or concern began to grow at a very young age. Bradley *et al.* (1999) and Aydin (2010) states that student participation in environmental programs will make their increased responsibilities of the environmental behavior and thinking about environmental issues.

The importance of learning attitudes and awareness of environmental concerns has attracted some researchers to conduct studies. Aminrad *et al.* (2013) stated that there was a significant but weak relationship between awareness and knowledge about environmental issues, while there is a high correlation between awareness and attitudes about learning environments. Heyl *et al.* (2014) stated that the variable students' attitudes toward environmental awareness project a positive, although not reflected in the fact the activities or conduct that is good for the environment. Pe'er *et al.* (2007) stated that although students 'limited knowledge of the environment, their overall attitude to the environment is positive and find a positive relationship between students' environmental knowledge and attitudes towards the environment.

Boeve-de Pauw & Van Petegem (2011) stated that greatly affect the eco-school students' knowledge and attitudes about environmental conservation awareness. Boeve-de Pauw & Van Petegem (2010) stated that the attitude of the youth towards environmental concerns about providing a positive influence. Aminrad *et al.* (2011) stated that a good indication of the level of awareness and attitudes towards the environment Siwa can come from the media or personal interests to environmental issues. Borchers *et al.* (2013) states that participation can significantly improve environmental knowledge and positively influence attitudes towards the environment. Lin & Shi (2014) stated that knowledge, awareness, attitudes, and behaviors related to each other, and the development of a specific domain on environmental awareness can be enhanced with the investigation graders. Kasapoğlu & Turan (2008) indicate that although students' attitudes toward the environment is very positive, but their response to the behavior of lower than attitude.

Arnold *et al.* (2009) stated that the formation of positive attitudes toward environmental concerns strongly influenced by parents, experience the outdoors, friends, peers, teachers, and community. Aminrad *et al.*

(2013) stated the importance of the learning environment and gradually promoted as a sustainable tool in environmental protection study concluded that the high level of awareness and knowledge plus the positive attitude of students possible respondents are influenced by family, teachers, society, media, reading and curriculum in schools. Taskin (2009) showed that students' attitudes toward environmental concerns vary depending on the type of school, gender, education level, the views of parents, profession, and household income. Fatih & Osman (2010) states that attitudes and awareness of student learning in a cultured environment should also involve parents, so that parents also understand the environmental issues.

The amount of research on learning attitudes and awareness towards environmental awareness aims to improve the living culture of clean, healthy, comfortable, and not destructive to the environment, it is necessary to an environmental education concepts easy to apply, so that all citizens can apply schools (Dikdasmen, 2007). To build awareness and concern is not the easy thing. To build the necessary awareness of the persistent fighters to engage and excite cultured school environment for residents. So to achieve these objectives should bear the presence of the purpose environmental school is to apply the caring attitude of the students in preserving the environment.

Problems often occur at this time on the attitudes and awareness of high school students or the equivalent in Probolinggo on cultured environment is still lacking. This is often indicated by a less commendable attitude for example, littering, random, as well as classrooms dirty. To build the necessary awareness persistent struggle to engage and excite cultured school environment for residents. So to achieve these objectives should bear the presence of learning about students' attitudes and awareness in a cultured environment.

Based on the phenomenon and frameworks, it is essential to be held a deep study on learning attitudes and awareness of student success in a cultured environment in Probolinggo,

2. Literature Review

Environmental education should be able to raise the awareness of all members of society. Without the awareness of all members of society, environmental education program impossible to achieve the target. Keraf (2002) states that the solution of environmental problems can not be done unilaterally. This is due to the interdependence of the environment requires the cooperation of all parties and involving the whole society. To raise awareness of the environment surrounding human processes are important and should be done is touching.

The process of awareness, attitude change, and mindset to the environment can be achieved by improving the knowledge, understanding, and behavior. Environmentally conscious can be formed and developed by: a) exposes a person on issues surrounding the environment continuously; b) to foster a culture of shame to perform activities such as: littering public places and places of others, taking out the trash and pollutants in any place, and break the chains of life (Dubos, 1968).

Environmental education given to the students gradually began of a cleanliness issue, waste segregation, treatment plants, the utilization of waste. Schools need to create rules (discipline) and facilities that support all programs care about the environment, among others: the provision of bins, green plants in pots or in the yard, hygiene coordinator of the students and teachers, and students picket schedule. Environmental education will be effective when the school makes the system stimulant (incentive), rewards, and punishment in developing appropriate attitudes and behavior of the students love the environment (Coyle, 2004).

Family, school, and society has an important role in the development of learning and the formation of students' attitudes toward environmental concerns (Sukmadinata, 2005). Attitudes and behavior of teachers towards the school environment shown is basically a part of the efforts to establish the students' attitudes and behavior towards the environment around the student (Coyle, 2004). Student success in a cultured environment really means a lot in order to instill environmental ethics on students. Obtained environmental ethics, can be built from an understanding of the importance of environmental and natural resource management to human life. The process can be realized through a learning process which is charged environmental education. In addition, environmental yng school also as a field for planting foundations of early environmental education on students and the media "recall", raise awareness and awareness for teachers, parents, students, employees and the public to environmental sustainability.

3. Methods

3.1.1. Variable Environmental Education in The School

This variable using 5-point likert scale of measurement. The indicators include: the physical environment of the school and its facilities, social environment, and the academic environment.

3.1.2. Variable Environmental Education in The Home

This variable using 5-point likert scale of measurement. The indicators include: the state of the house, learning tools, the atmosphere in the home, around the home environment, communication between family members, openness, and the example of the parents.

3.1.3. Variable Environmental Education in The Community

This variable using 5-point likert scale of measurement. The indicators include: discipline, manners, and clean living

3.1.4. Variables Knowledge Students

This variable using 5-point Likert scale of measurement. The indicators include: environmental education in schools, homes, and community.

3.1.5. Variable Attitude and Awareness of Students

This variable using 5-point Likert scale of measurement. The indicators include: ekosentrik, anthropocentric, apatik, foster a culture of shame if it does not perform environmental activities

3.1.6. Variable Success of Students in Cultured Environment

This variable using 5-point likert scale of measurement. The indicators include: the development of school policies, curriculum-based development environment, the development of participatory-based activities, and supporting the development of school facilities.

3.1.7. Data Collection

The data collection method in this study uses the approach Slovin in Umar (2002) the number of high school students of data in 3 districts (Pajarakan, Paiton, and Kraksaan) Probolinggo district as many as 100 samples.

3.1.8. Analysis

Analysis of the data in this study using analysis of GSCA. GSCA can be used to obtain a powerful structural model in order to destination prediction or confirmation, in addition to the GSCA too powerful to test the theory-based model, or in other words to confirm theories about the relationship between the variables contained in the structural model (Solimun, 2013).

3.1.9. Hypothesis

Hypothesis between variables associated with several previous studies and the relationship between nvariabel is shown in Figure 1.

Tuncer *et al.* (2009) stated that teachers' background environment is significantly and positively influence the attitudes of environmental concern. Boeve-de Pauw & Van Petegem (2011) stated that environmental education in schools aims to improve the environment through direct and indirect effects and the results indicate that environmental education in schools affect students' knowledge of environmental concern. Borchers *et al.* (2013) stated that the participation of students in extra-curricular activities significantly influence environmental education in improving knowledge of the environment and positively influence attitudes towards the environment. Aminrad *et al.* (2013) stated that the high level of awareness and knowledge plus the positive attitude of students possible influenced by teachers and school curriculum. Uitto *et al.* (2011) stated that explores the relationship between students' interest in environmental issues, attitudes toward environmental responsibility in the care and biocentric values in science education in schools and there is a significant correlation between attitudes and environmental concerns significantly. Carrier (2009) states that the variable attitudes and behavior towards environmental awareness shows that male students are more significant than female students.

Tsai *et al.* (2013) stated that students receive in-depth knowledge on topics related to energy conservation and carbon reduction, show greater initiative and diversity in beliefs and attitudes toward environmental concerns, and students are also willing to participate in energy conservation and reduction activities carbon. Yavetz *et al.* (2009) stated that adequate preparation of teacher education in environmental education is a prerequisite for the ability of future students to design and implement effective environmental education. Crowe (2013) stated that environmental education increase knowledge and awareness about the environment and teaches the skills that lead to actions that will ensure the management of all aspects of the earth's environment. Integration of spirituality and religious traditions in environmental education offers an alternative approach to curriculum design that encourages environmental attitudes and behavior. Based on this, the proposed hypothesis 1, as follows:

Hypothesis 1: Environmental education in the school affect the student's knowledge

Esa (2010) states in this decade of Education for Sustainable Development (ESD), educational institutions must increase their efforts to educate their students for a sustainable future. The most influential teachers in educating children and teens to become future leaders in protecting the environment. Ballantyne & Packer (2009) states that learning experience-based learning environment is very important in dealing with students' attitudes and actions towards environmental awareness. Tuncer *et al.* (2009) stated that teachers' background environment is significantly and positively influence the attitudes of environmental concern. Boeve-

de Pauw & Van Petegem (2011) stated that environmental education in schools greatly influence the attitude of environmental preservation. Borchers *et al.* (2013) stated that student participation is significantly and positively influence attitudes towards the environment. Aminrad *et al.* (2013) stated that the high level of awareness and knowledge plus a positive attitude possible student teachers and families affected by the school curriculum concerning the environment that enhances students' view of the environment as well as a whole in society. Carrier (2009) stated that the impact of environmental education lessons caring attitude towards the environment. Kose *et al.* (2011) stated environmental education has changed the students to have a positive attitude towards the environment. Based on this, the proposed hypothesis 2, as follows:

Hypothesis 2: Environmental education in the school affect the students' attitudes and awareness

Aminrad *et al.* (2011) states that an increase in awareness and attitudes towards the environment are influenced by the students' knowledge of environmental education in the home. Arnold *et al.* (2009) stated that the influence of self-identified major in environmental action, one of which is an old man. Aminrad *et al.* (2013) stated that the high level of awareness and knowledge plus the positive attitude of students possible influenced by the family respondent. Based on this, the proposed hypothesis 3, as follows:

Hypothesis 3: Environmental education in the home affect the students' knowledge

Aminrad *et al.* (2013) stated that the high level of awareness and knowledge of students possible plus a positive attitude is influenced by the family respondent. Taskin (2009) stated that students in public schools are high and students with educated parents who have positions have more pro-environmental attitudes. The results of the study Siregar (2013) showed that the role of parents, especially parents work extremely influential on students' attitudes and awareness towards environmental awareness. Arnold *et al.* (2009) stated that the influence of self-identified major in environmental action are parents. Based on this, the proposed hypothesis 4, as follows:

Hypothesis 4: Environmental education in the home affect the students' attitudes and awareness

Research results Littleldyke (2008) which states that environmental education in the community will be impacted to address social and environmental issues, including the environmental consequences of human behavior. Short (2009) states that the public should be able to understand the complexity of environmental issues and actively participate. The main objective of environmental educators should facilitate the creation of active citizens against environmental concern. Arnold *et al.* (2009) Effects of self-identified major in environmental action one of which is influenced by youth groups and conferences or meetings. Aminrad *et al.* (2013) stated that the high level of awareness and knowledge plus a positive attitude is influenced by the community of students possible. Based on this, the proposed hypothesis 5, as follows:

Hypothesis 5: Environmental education in the community affect the student's knowledge

Heyl *et al.* (2014) stated that the variable students' attitudes toward environmental concerns give positive values based on regression analysis. Arnold *et al.* (2009) stated that the influence of self-identification is a major in environmental action groups and youth conferences or meetings. Aminrad *et al.* (2013) stated that the high level of awareness and knowledge plus a positive attitude is influenced by the views of students possible environment among students and the entire community. Based on this, the proposed hypothesis 6, as follows:

Hypothesis 6: Environmental education in the community affect the students' attitudes and awareness

Goldman *et al.* (2013) stated that the contribution of the environment to the cognitive domain knowledge can develop a systemic understanding of the environment and participate in improving the students' sensitivity to the human-environment linkages and develop a more ecological worldview. Pe'er *et al.* (2007) stated that although students' limited knowledge of the environment, their overall attitude to the environment is positive and find a positive relationship between students' environmental knowledge and attitudes towards the environment. Metin (2010) states that all people are more sensitive to the environment and environmental protection by developing a positive attitude, emotion, thought or behavior towards the environment and is reinforced by the results of research studies Şimşekli (2001), Erten *et al.* (2003), and Erol & Gezer (2006). Aminrad *et al.* (2011) states that an increase in awareness and attitudes towards the environment, they get from the media or personal interests to environmental issues. Lin & Shi (2014) stated that knowledge, awareness, attitudes, and behaviors related to each other, and the development of a specific domain on environmental awareness can be enhanced with the investigation graders. Cavas *et al.* (2009) stated that the Turkish students have positive attitudes towards environmental issues. Kumurur (2012) states that knowledge relates to attitude and concern for environmental quality in Jakarta. Based on this, the proposed hypothesis 7, as follows:

Hypothesis 7: The students knowledge affect attitude and awareness of students' attitudes

Ballantyne and Packer (2009) states that learning experience-based learning environment is very important in dealing with students' attitudes and actions towards the creation of environmental awareness. Littleldyke (2008) also stated that the joint development of a positive approach to science and environmental issues through active learning through constructivist pedagogy, the politicization of science education, experience the natural environment and living organisms, and the science curriculum that emphasizes conceptual integration to show the environmental impact complex in addressing social and environmental issues, including the environmental consequences of human behavior. Monalisa (2013) states that the program needs to be

implemented in schools adiwiyata to shape the behavior concerned about the environment for the school community. Yavetz *et al.* (2009) stated that the findings are relevant to decision-makers bring environmental education into teacher education institutions and policies for the development of programs in an effective way to integrate both structured educational environment and the framework makes the program at this time. Hidayati (2013) states that the program is run by SMK Adiwiyata 2 Semarang form of behavior change that the school community aware of the needs of the environment. They realize that the environment is clean, safe disaster, sanitation smoothly is a comfortable place in life. Teachers and friends without hesitation and bored to always admonish and advise the student or other school members who contribute damaging the environment. Based on this, the proposed hypothesis 8, as follows:

Hypothesis 8: Attitudes and awareness of students' affect on student success in a cultured environment

Research framework is based on the hypothesis test variables are shown in Figure 1.

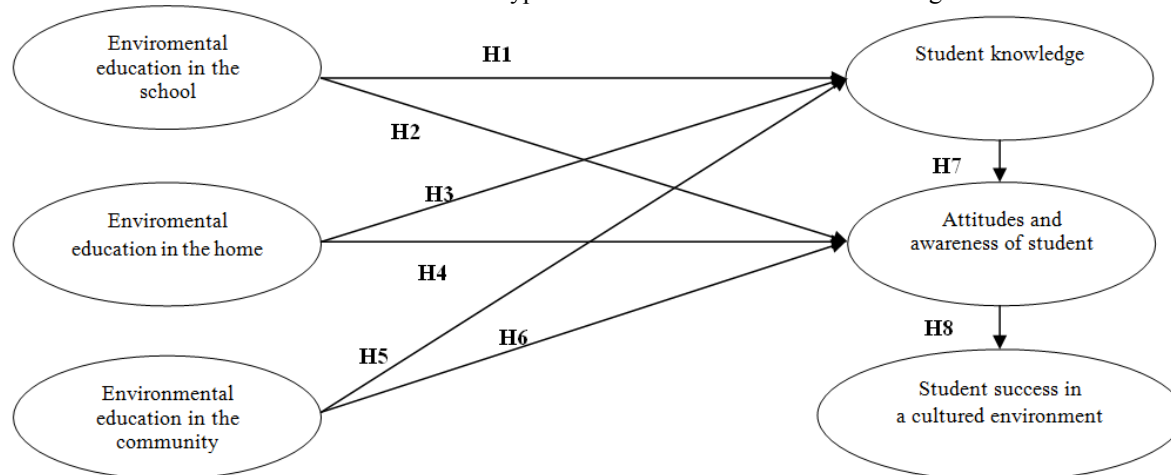


Figure 1. The Framework of Research

4. Results and Discussion

4.1. Relationship Environmental Education in the School with Student Knowledge

The results of the analysis of the direct influence of the model coefficient estimate on the variable environmental education in the school has a positive and significant relationship with students' knowledge variable with a value at 0.170 with a SE at 0.081. The results of the study $SE > 95\%$, then there is enough empirical evidence to accept the hypothesis that environmental education in school variables significantly influence students' knowledge variables. Bertdana direct positive effect coefficient (0.170), indicating that the influence of both unidirectional. This means that the higher the ability of the school in conducting environmental education in the school, the higher will result in changes in students' knowledge.

4.2. Relationship Environmental Education in the School with Attitude and Awareness of Student

The results of the analysis of the direct influence of the model coefficient estimate on the variable environmental education in schools and do not have a significant negative relationship with students' attitude and awareness variables with the value at -0.142 with SE at 0.117. The results of the study $SE > 95\%$, then there is enough empirical evidence to reject the hypothesis that the variable environmental education in schools does not significantly influence the attitude and awareness of student variables. Bertdana direct effect coefficient is negative (-0.142), indicating that the effect of the two is not unidirectional. This means that the higher the ability of the school in conducting environmental education in schools, the lower will result in a change in attitude and awareness of students, but not significant.

4.3. Relationship Environmental Education in the Home with Student Knowledge

The results of the analysis of the direct effect coefficient estimate on the variable model of environmental education in the home has a positive and significant relationship with students' knowledge variable with a value at 0.434 with a SE at 0.099. The results of the study $SE > 95\%$, then there is enough empirical evidence to accept the hypothesis that environmental education variable in the variables significantly influence the students' knowledge. The coefficient is positive direct effect (0.434), indicating that the influence of both unidirectional. This means that the higher the participation of the family in the house in doing environmental education in the home, the higher will result in changes in students' knowledge.

4.4. Relationship Environmental Education in the Home with Students Attitudes and Awareness

The results of the analysis of the direct influence of the model coefficient estimate on the variable environmental education at home and do not have a significant positive relationship with attitude variables and the students' awareness of the value at 0.255 with a SE at 0.150. The results of the study SE > 95%, then there is enough empirical evidence to reject the hypothesis that the education variables in the home environment does not significantly influence the attitude and awareness of student variables. Bertdana direct positive effect coefficient (0.255), indicating that the influence of both unidirectional. This means that the higher the participation of the family in the house in doing environmental education in the home, the higher will result in a change in attitude and awareness of students, but not significant.

4.5. Relationship Environmental Education in the Community with a Student Knowledge

The results of the analysis of the direct effect coefficient estimate on the variable model of environmental education in the community has a positive and significant relationship with students' knowledge variable with a value at 0.148 with a SE at 0.082. The results of the study SE > 95%, then there is enough empirical evidence to accept the hypothesis that environmental education in the community variables significantly influence students' knowledge variables. Bertdana direct positive effect coefficient (0.148), indicating that the influence of both unidirectional. This means that the higher the public participation in the conduct of environmental education in the community, the higher will result in changes in students' knowledge.

4.6. Relationship Environmental Education in the Community with Attitudes and Awareness of Student

The results of the analysis of the direct effect coefficient estimate on the variable model of environmental education in the community and does not have a significant positive relationship with students' attitude and awareness variables with the value at 0.111 with a SE at 0.149. The results of the study SE > 95%, then there is enough empirical evidence to reject the hypothesis that the variable environmental education in the community did not significantly influence the attitudes and awareness of student variables. Bertdana direct positive effect coefficient (0.111), indicating that the influence of both unidirectional. This means that the higher the public participation in the conduct of environmental education in the community, the higher will result in a change in attitude and awareness of students, but not significant.

4.7. Relationship Student Knowledge with Attitude and Awareness of Students

The results of the analysis of the direct influence of the model coefficient estimate on the variable of knowledge students have a positive and significant relationship with the variable attitudes and awareness of students with a value at 0.128 with SE at 0.084. The results of the study SE > 95%, then there is enough empirical evidence to accept the hypothesis that the variables significantly influence the students' knowledge and awareness of students' attitudes variables. Bertdana direct positive effect coefficient (0.128), indicating that the influence of both unidirectional. This means that the higher the students' knowledge of environmental education in schools, homes, and communities, the higher will result in a change in students' attitudes and awareness.

4.8. Relationship Attitudes and Awareness of Student with Student Success Cultured Environment

The results of the analysis of the direct influence of the model coefficient estimate on the variable attitudes and awareness of the students have a positive and significant relationship with student success cultured environment variable with a value at 0.335 with a SE at 0.089. The results of the study SE > 95%, then there is enough empirical evidence to accept the hypothesis that the variables significantly influence the students' knowledge and awareness of students' attitudes variables. Bertdana direct positive effect coefficient (0.335), indicating that the influence of both unidirectional. This means that the higher the students' attitudes and awareness in environmental education knowledge, the higher the success rate of students in a cultured environment.

The final model included in this study put the variable attitudes and awareness of students as drivers increase student success cultured environment. The final model of the learning model attitudes and awareness of student success in a cultured environment is shown in Figure 2.

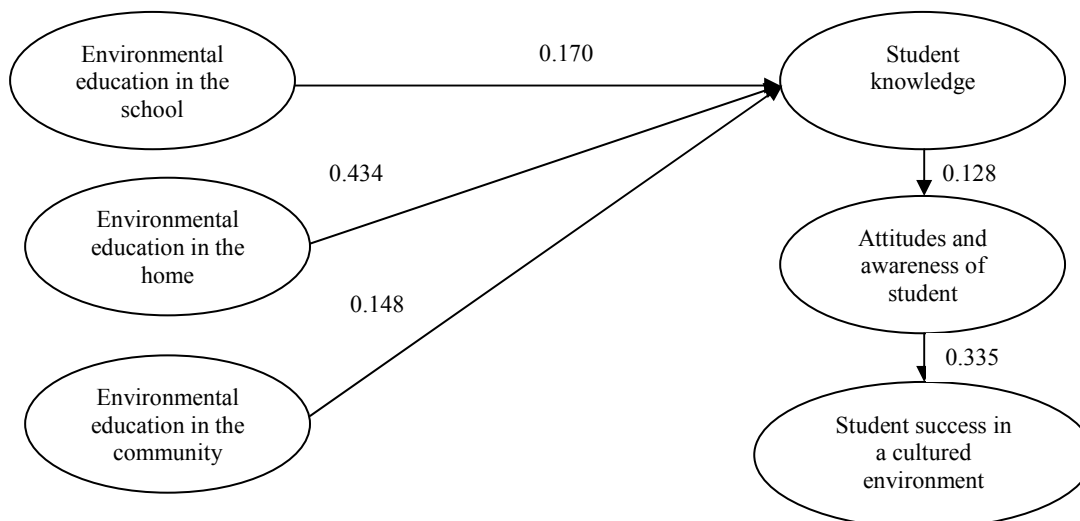


Figure 2. Results of the Analysis of the Path Diagram

5. Conclusion

Based on the results of the research, data analysis and discussion in the previous chapters, it could be concluded as follows;

1. Environmental education in the school has a positive and significant with students' knowledge.
2. Environmental education in the school do not have a significant and negative with students' awareness and attitude.
3. Environmental education in the home has a positive and significant with students' knowledge.
4. Environmental education in the home do not have a significant and positive with attitude and awareness of student.
5. Environmental education in the community has a positive and significant with students' knowledge.
6. Environmental education in the community does not have a significant and positive with attitude and awareness of student.
7. Knowledge of students have a positive and significant with attitudes and awareness of students.
8. Attitudes and awareness of the students have a positive and significant relationship with student success cultured environment.

Suggestions in this research is necessary to study the research on models of learning and awareness of students' attitudes towards student success cultured environment at the level of a junior high school and elementary school or equivalent and further research on the influence of environmental education in schools, education in the home environment, and environmental education in communities with variable success of students in cultured environment.

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