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RESEARCH ARTICLE

Fostering Student Awareness & Participation Related to Environmental Issues through the Project Citizen Learning Model

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ABSTRACT

Environmental problems are one of the public issues that require active involvement of citizens. Citizen involvement in environmental issues can actually be discussed through formal education in schools. Through the discussion of environmental issues in learning activities, it is expected to form students' awareness and participation in environmental issues. Starting from these conditions, this study aims to find an overview and analysis of the application of the project citizen model in cross-disciplinary learning activities to shape students' awareness and participation in environmental problems. This research is located at SMA Kristen 1 Surakarta, Indonesia. Sampling was conducted purposively using qualitative research methods. Samples were taken from grade X students, principal, vice principal, and teachers. The results found that the project citizen model can be applied in cross-disciplinary learning based on themes, one of which is the environmental theme. Through the project citizen model that discusses the issue of environmental problems, students gain knowledge, experience, skills and form environmental care characters that characterize them as ecological citizens.

INTRODUCTION

Issues related to environmental problems have been included in the list of world risks for three consecutive years, contained in the latest Global Risk Report issued by the World Economic Forum in 2019, where it is said that the world seems to be walking towards disaster. (World Economic Forum, 2019). The emergence of environmental damage according to the analysis of sociologists is due to poor human behavior towards the environment (Williams, 2002). (Williams, 2002). In addition, economic and technological advances in the era of globalization, which were unprecedented in the past, bring serious threats to social life and environmental damage, so it should be necessary for humans to take responsibility for maintaining life on earth and training them to have a sustainable lifestyle (Hawthorne & Alabaster, 2019). (Hawthorne & Alabaster, 1999)..

Environmental degradation is seen as a global disaster because its impact crosses territorial boundaries (Nagra, 2010). Therefore, it requires an awareness of each individual about environmental problems so that it can encourage them to play a role in overcoming these problems. (Liu et al., 2020). As a smart global citizen, it is expected to be able to develop multidimensional citizen characteristics. One of the multidimensional characteristics is citizen involvement in public affairs/issues (Cogan, 1998). (Cogan, 1998). Environmental issues are included in it. From some research results, it shows that there has been an increase in public attention related to the issue of

environmental problems and the impact of human behavior on the environment (Barr et al., 2011). (Barr et al., 2011; Hynes & Wilson, 2016).

Efforts to foster individual awareness and involvement in environmental issues can be done through education in schools. The world realizes the importance of education including formal education, public awareness, and training related to the environment. (UNCED, 1992). Schools are seen as the main institution that plays an important role in developing aspects of knowledge, skills, and active participatory attitudes of students in shaping the future of society and directing social, economic and ecological changes in a sustainable direction (Idrissi, 2020). (Idrissi, 2020). Several studies that have been conducted on students at the secondary level show that they have an awareness of environmental issues at a fairly good level (Altin et al., 2014). (Altin et al., 2014; Khoiri et al., 2021; Salleh et al., 2016). The three studies also recommended that schools modify learning to include environmental issues with applied training models and ethnoscience approaches. The recommendation is given because schools are considered to be lacking in including environmental issues in learning activities. This is in line with the results of research from (Debrah et al., 2021) which shows that the weakness of environmental education is due to a curriculum system that does not provide space for teachers and students regarding discussions on current environmental issues for sustainable development and cleaner production.

Based on the results of previous research, the need for empirical research is needed to examine school strategies in integrating environmental issues in learning activities while encouraging active participation of students in preserving the environment. This study aims to answer this question by focusing on the Christian Senior High School 1 Surakarta, through explorative qualitative research on school strategies in integrating environmental issues in learning activities and evaluation related to its impact on the formation of student awareness and participation on environmental issues. The school strategy studied is the application of the *citizen project* model.

The model is considered effective because students who are involved collaboratively in the project are able to identify problems from an issue through research activities so as to develop their knowledge, skills, and efficacy. (Morgan, 2016). Therefore, through *citizen projects* based on environmental issues, it is expected to form students' awareness of their rights and responsibilities not to damage the environment and preserve the carrying capacity of the environment. By Raessens (2019) those who strive for this are called ecological citizens. *Project citizen* can shape students into ecological citizens because one of the premises in this learning emphasizes the four pillars of education ranging from *learning to do, learning to know, learning to be and learning to live together (Budimansyah, 2002).* (Budimansyah, 2002). It is expected that through the *project citizen* model, students can show characteristics as ecological citizens who have five components, namely: civic literacy, ecological literacy, awareness values, self-efficacy, and practical wisdom. (Berkowitz et al., 2005)..

RESEARCH METHODS

This research was conducted at SMA Kristen 1 Surakarta, located at Jalan Honggowongso No. 135 Surakarta City, Indonesia. The research location was chosen for several reasons. First, the school had received the green school award, so that all school members should have awareness related to environmental issues and continue to strive for environmental conservation. Second, the school has implemented an interdisciplinary learning program for grade X students related to environmental issues in the 2022/2023 academic year. Third, the researcher is one of the teachers at the school, making it easier for the research process, especially data search. What will be researched is an evaluation related to how the implementation of the *citizen project* model based on environmental issues and its impact on the formation of students' awareness and participation in environmental issues. Therefore, the qualitative research method was chosen because it was deemed most appropriate to reveal the phenomenon in depth as it is without intervention from the researcher. In

line with the purpose of qualitative research, namely as a type of research that is naturalistic and non-numerical data. (Nassaji, 2020). In addition, qualitative research can evaluate many approaches simultaneously for the same problem (Aspers & Corte, 2021). (Aspers & Corte, 2021). Through the use of this methodology, it is possible to conduct a comprehensive evaluation of student awareness and participation related to environmental issues formed through the application of *citizen projects* based on environmental issues.

Sample

This study used a sample of grade X students and several teachers including the principal and vice principal using deliberate sampling. The aim is to get a clear and comprehensive picture from various perspectives from the principal, vice principal, teachers, and students regarding the implementation of the *project citizen* model strategy based on environmental issues and its impact on the formation of student awareness and participation regarding environmental issues. To obtain representative and comprehensive data from various perspectives, in-depth interviews were conducted with the principal, vice principal, teachers and several grade X students and distributed reflection forms to all grade X students. The interviews were conducted at the end of the learning hour and the reflection form was filled in by students through google form when they had finished implementing the learning series of the *project citizen* model.

Table 1: Distribution of Reflection Forms to Class X Students

Class	Number of Males	Number of Women
X A	11	13
X B	10	12
X C	10	13
Total	31	38

Table 2: Interviewed informants

No.	Gender	Status	Interview Time
S1	Male	Principal	32 minutes
S2	Male	Vice Principal	30 minutes
S3	Female	Students of class X A	18 minutes
S4	Male	Students of class X A	15 minutes
S5	Female	Class X B students	17 minutes
S6	Male	Class X B students	16 minutes
S7	Male	Students of class X C	25 minutes
S8	Male	Students of class X C	15 minutes
S9	Female	Accompanying Teacher	33 minutes
S10	Female	Accompanying Teacher	30 minutes

Source: Developed by researchers

Data collection

The selection of participants was carried out through a *purposive sampling* strategy. *Purposive sampling* is a sampling technique that is chosen deliberately because it is felt to be more suitable for the purpose and objectives of the research, so that the results of research accuracy and trust in data, and results can increase. (Campbell et al., 2020). The main criterion for the sample selection process

is the involvement of the school, in this case the principal, vice principal and teachers in developing and implementing the *citizen project* model based on environmental issues to class X students. Meanwhile, students are those who are subjected to the *citizen project* model based on environmental issues.

Research instruments

To explore the data, the researcher conducted interviews with school parties including the principal, vice principal, teachers and class X students as research instruments. Interviews are commonly used in qualitative research methods to gain insight into the values, beliefs, and assumptions of the interviewee (Choy, 2014). (Choy, 2014). The type of interview used is semi-structured. This type of interview is an effective instrument for exploring the experiences and perceptions of research subjects related to the topic of the investigation area (Naz et al., 2022). (Naz et al., 2022). Through this instrument, it is expected to explore data related to the experiences and impacts felt by students after studying the issue of environmental problems through the *citizen project* model. While from the school side, it can provide an overview of the views regarding the reasons for choosing the *project citizen* model based on environmental problem issues. Another research instrument used is a questionnaire. Students were asked to fill out a questionnaire online via *google form* as an evaluation material after they finished implementing the citizen *project model* based on environmental issues.

Data analysis

The data analysis technique used in this study refers to the qualitative data analysis proposed by (Miles et al., 2014)The data analysis technique used in this research refers to the qualitative data analysis proposed by (Miles et al., 2014). The analysis consists of four streams of activities that occur simultaneously, namely: data collection, data reduction, data presentation, and conclusion drawing/verification. The first stage of data collection was carried out through interviews with predetermined participants and through the feeder of the results of reflection questionnaires that had been filled in by students online. After the data in the form of interview results and questionnaires are collected, data reduction is then carried out by selecting, classifying / giving codes, and focusing the data as needed. The next stage is data presentation, intended to find meaningful patterns and provide the possibility of drawing conclusions and providing action. Data presentation can be in the form of descriptive narratives or in forms such as graphs or metrics. The last stage is inductive inference, the aim is to look for patterns, themes, as well as relationships, similarities, and differences, as well as other hypotheses related to the problems that researchers study. The data analysis framework is depicted in the following chart (Figure 1.)

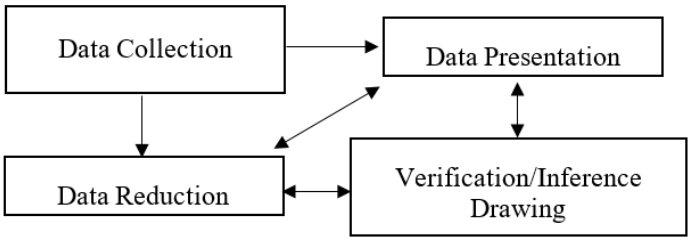

Figure 1: Data analysis framework

Source: Qualitative Analysis Model Flow according to (Miles et al., 2014)

RESULTS AND DISCUSSION

Implementation of project citizen model learning based on environmental issues

The project citizen model is applied in cross-disciplinary learning activities by raising the issue of environmental problems related to solid waste management. Solid waste includes materials that are

solid or liquid, but excludes wastewater and small particles released into the atmosphere. (United Nations, 2014). For example all materials such as packaging, bottles, food waste, newspapers, appliances, devices, batteries, and dyes, etc. (Arıkan et al., 2017). Meanwhile, based on its source, solid waste is divided into two, namely organic and inorganic. Organic waste comes from the remains of living things (nature) both animals and plants. Meanwhile, inorganic waste comes from the rest of human activities that are difficult to decompose by bacteria, so it takes a long time (up to hundreds of years) to decompose. (Agus Taufiq, 2015). Based on the results of the study, it shows that on average in one week the solid waste generated by the school reaches 25 drums with a capacity of 200 L / drum. The types of inorganic waste are dominated by plastic used food / drinks and plastic bottles of mineral water. While the organic type is dominated by food scraps and dry leaves. The data is reinforced by the results of a survey conducted to 69 class X students related to students' habits of bringing beverage bottles and the habit of throwing away food students.

Table 3: Class X students' Habit of bringing drink bottles from home

Statement	Percentage	Total
Strongly Disagree	0 %	0
Disagree	23 %	16
Agree	31 %	21
Strongly Agree	46 %	32

Table 4: Class X Students' habit of disposing of leftover food

Statement	Percentage	Total
Strongly Disagree	27 %	18
Disagree	31 %	21
Agree	29 %	20
Strongly Agree	13 %	9

Based on the data above, it can be concluded that there are still class X students who do not have the habit of bringing drinking bottles from home, so they choose to buy drinks that are sold in the canteen. So that it results in the generation of plastic waste from the remaining beverage wrappers both plastic bottles and plastic bags. In addition, it turns out that there are still class X students who throw away food scraps that they don't finish eating, whether it's lunch from home or what they buy in the canteen. So that it has an impact on the generation of food waste.

Figure 2: Solid Waste
Food wrappers & scraps, and dried leaves

Figure 3: Solid Waste
Used mineral water bottles

As a result of this waste, many students complain about the unpleasant odor caused by food waste mixed with rainwater. In addition, students also complain about the smoke caused by burning dry leaves and plastic waste. This is certainly very disturbing in learning activities. So far, the waste generated by the school is not managed well at all, there is no separation of waste or recycling of waste. This is evident from Figure 2, which shows that all types of waste are put together in one place. Economic and efficiency reasons are the reasons why schools do not implement solid waste management. Even though the school is a provincial green school awardee. So far, the waste generated has been left for one week, after which on Thursday there will be a garbage truck that picks it up. The waste transported in the garbage truck is then disposed of at the Putri Cempo Mojosongo landfill.

Basically, solid waste management problems are found in developing countries, due to the environmental knowledge gap between young and old people, which results in unsustainable development (Debrah et al., 2021). (Debrah et al., 2021).. Therefore, a strategy is needed to form environmental awareness in citizens, in this context school residents, so that they understand the dangers of environmental damage caused by the absence of proper solid waste management.

However, in developing countries, environmental education taught in formal schools is still weak. Research results from (Debrah et al., 2021) shows that the weakness of environmental education is due to a curriculum system that does not provide space for teachers and students regarding discussions about current environmental issues for sustainable development and cleaner production. This then has implications for the lack of environmental awareness in students and teachers to be actively involved in overcoming environmental problems. In line with the results of research from (Hegger et al., 2017; Mees et al., 2019; Wamsler et al., 2020) that empirically there is still little citizen involvement in actual contribution through various forms of participation in order to achieve sustainability goals. Therefore, it is necessary to design learning activities that are able to present environmental issues in the classroom. The goal is that students gain knowledge about the environment but at the same time can foster attitudes and awareness of the environment. Through the communication of environmental attitudes, environmental awareness, and environmental knowledge from teachers to students through formal education, environmental sustainability can be achieved. (Debrah et al., 2021)

On that basis, the school then organized a learning activity based on environmental issues, especially related to waste management/solid waste through the *project* citizen model. The *project citizen* learning model is an effort to realize this goal. The *project citizen* model tries to present a real problem in students' daily lives, so that it can make it easier for them to absorb and understand a learning material. Related to learning about environmental issues using the *project citizen* model is able to encourage students' ability to contribute to solving problems around them.(Huckle, 1986). The alternative policy proposal offered to the school regarding waste management is a form of real contribution that students can make. This is also the reason why the *project citizen* model is very appropriate to be applied at SMA Kristen 1 Surakarta. Because from the results of a survey of 69 class X students, most of them have never submitted proposals to the school regarding environmental management programs. Described through the table below

Table 5: Proposing ideas related to environmental management policies at school

Statement	Percentage	Total
Strongly Disagree	20 %	14
Disagree	58 %	40
Agree	20 %	14
Strongly Agree	2 %	1

This is in line with what was stated by (O'Riordan, 2001) (O'Riordan, 2001) that in overcoming an environmental problem, it is necessary to think both locally and globally and take real action in finding solutions to solve the problem. This may also be the reason why there are no improvements related to solid waste management in the school environment due to the lack of involvement of student participation in proposing environmental management programs to the school. Although environmental issues related to waste management are local because they are found in schools, but through these problems it is hoped that it can be a starting point for student involvement in a community so that in the future it can develop into a wider community such as countries and even internationally. In line with the objectives of the *citizen project,* problem-based learning is able to develop the knowledge, skills, and dispositions of democratic citizenship that enable and encourage participation in government and civil society (Atherton, 2000). (Atherton, 2000).

Learning related to environmental issues applied at SMA Kristen 1 Surakarta is technically carried out according to the steps of the *project citizen* model in general. It's just that there are adjustments related to the material studied because *project citizen is* applied in cross-disciplinary learning not in social science subjects or specifically Civics as usual. Adjustments can be seen from the existence of thematic-based learning. At the senior high school level for three years there are a total of eight themes that students in Indonesia must follow. One of the eight themes is sustainable lifestyles. The existence of thematic learning aims to enable students to have a variety of perspectives and knowledge in overcoming problems. In line with the implementation of the UNDP's *Sustainable Development Goals (SDGs)* program in education, known as *Education for Sustainable Development* (ESD), which aims to make students aware of and responsible for shared environmental problems. (Tareze & Astuti, 2022).. So that way students can take an active role to get involved in solving minimal environmental problems in the surrounding area.

Based on the results of the study, *it* shows that learning related to environmental issues through the *citizen project* model applied at SMA Kristen 1 Surakarta consists of six steps in line with the scenario or procedure and signposts prepared by (Center for Civic Education/CCE, 1998) include:

1. Problem Identification
   The teacher as a facilitator conveys to the students the theme that has been determined by the school. The chosen theme is sustainable lifestyle. Through guidance from the teacher, students actively and deeply explore environmental problems that do not reflect a sustainable lifestyle in the school area. Problem identification is carried out by students through interview and observation activities. Students conduct interviews with the principal, teachers, and also students in the upper level. Meanwhile, observations were made by students walking around the school environment and recording their findings. Through these activities, students concluded that poor waste management is an environmental problem that does not reflect the sustainable lifestyle they have identified in the school environment. This shows that there has been a denial of obligations as an ecological citizen as categorized by (Barry, 1999; Dobson, 2003) that activities such as recycling or sustainable consumption fall under the category of ecological citizenship .
2. Selecting a Problem to Focus on for Classroom Study
   The identification of problems that have been collected in the previous step is used as material for discussion in class to determine the main priorities of why the problem needs to be studied when compared to other problems. From the results of student findings, it shows that there are many environmental problems related to waste management that students have managed to find. Through the discussion process between students in each class, it was finally determined that there were three environmental problems related to waste management that would be studied by each class. Class X A chose a problem about the low awareness of students in

disposing of waste, class X B about plastic waste management, and class X C chose a problem about organic waste management.

3. Gathering information related to the problem that is the focus of the class study
   After each class has determined their respective problem topics related to waste management, then the next stage is for students with their group task descriptions to search for and collect additional information that will support solving the problem. Students search and find information from both direct and indirect sources. Indirect sources are obtained from digital literature on the internet. While direct sources are obtained from interviews with principals, teachers and also through observation of student behavior during recess related to garbage disposal behavior.
4. Developing a Class Portfolio
   In this stage, each group in each class began to develop their portfolios. Each class is divided into four groups with 6-7 students per group. Each group will focus on organizing meaningful information by reviewing the information they have collected previously and then developing a portfolio so that it is easy to understand and explain during the presentation of the portfolio in a simulated hearing. Although each group develops its own portfolio, they must be related to each other according to the topic of the problem being studied. Group one is tasked with presenting a panel related to the explanation of the identification and selection of environmental problems, group two discusses the proposed alternative policies that can be chosen to solve environmental problems, group three chooses one of the alternative environmental policies offered by group two, while group four presents a follow-up plan to the environmental policy chosen by group three. Each portfolio is then displayed in the form of a *pop up* which is a new innovation, not in the form of a 2 D wall magazine as usual.
5. Presenting the Class Portfolio in a Simulated Hearing
   The portfolios that had been compiled by each group were then presented in front of the audience at the work show. In front of the principal and representatives of the head of student affairs as the jury, each group presented their portfolio. The portfolio presentation/show *case* is an opportunity for students to establish a dialog with the school in order to convey their ideas related to environmental problems in the school. Through portfolios that are arranged systematically and comprehensively, they hope to influence public policy at the school level related to the environment.
6. Conduct a Revenue Review of Learning Experiences Conducted
   This stage is a reflection for students to reflect on the learning activities of the *project citizen* model that they have done. It is expected that students can explore their learning experiences and what values they have gained related to the environment. This is very important to make it easier for students to understand what values need to be developed and realized in everyday life.

Based on the stages of implementing the *project citizen* model related to environmental issues above, it uses a student-centered learning approach. In almost all stages, students are more dominant than teachers during the learning process. The teacher's role is only limited to a facilitator while students are more active in exploring problems, collecting and processing information, and presenting it in the form of a portfolio. This is in line with the theory put forward by (Newton, 2000) regarding the *Effective Citizen Model* paradigm, called *Project Citizen*. It is a student-centered learning model and prepares graduates to have skills and ultimately become a modern society. Because in modern society what is needed is not only knowledge but also the ability to solve problems related to real life in this modern era. Therefore, students need to be given supportive experiences during the learning process through activities that actively explore real-world problems and challenges (Hilton &

Pellegrino, 2012). (Hilton & Pellegrino, 2012).. Environmental issues related to waste management are one of the real challenges that exist in schools that require efforts to solve.

While the *project citizen* model according to the concept (Kerr, 1999) has changed from the "*education about citizenship*" approach to "*education through citizenship*" because the learning model seeks active participation from students both in classroom learning and learning to solve public problems outside the classroom using critical thinking patterns. Through active student involvement related to environmental issues, it is able to fully develop the three competencies of citizenship, namely knowledge, skills, and also character. Reinforced by (Levine, 2003) allows students to engage in meaningful work on serious public issues with the ability to see positive results within a reasonable time. *Project Citizen* allows students to fulfill their obligations as responsible citizens regarding efforts to protect the environment.

Student awareness and participation in environmental issues

Environmental problems that occur in this modern era are one of the factors that cause a lack of awareness of citizens as holders of rights and obligations in efforts to use, manage and preserve the existing environment. Citizens who understand their rights and obligations related to the environment are called ecological citizens. (Dobson, 2003) states that an ecological citizen has an awareness of his responsibility to unborn generations and present behavior that will affect the future . The existence of this awareness shows that ecological citizens must have knowledge related to the impact of environmental damage that will threaten both current and future generations. Based on this knowledge, it will grow commitment and participation to strive for environmental conservation so that both present and future generations can enjoy a good and sustainable environment. The following are data related to the awareness of class X students of SMA Kristen 1 Surakarta related to environmental problems and their commitment to overcome them after the implementation of *project citizen* model learning activities based on environmental issues:

Table 6: Through *Project Citizen* Activities, I realized that there are environmental problems at school

Statement	Percentage	Total
Strongly Disagree	0 %	0
Disagree	4 %	3
Agree	57 %	39
Strongly Agree	39 %	27

Table 7: *Project Citizen* gives me the experience to be able to see closely the environmental problems at school.

Statement	Percentage	Total
Strongly Disagree	0 %	0
Disagree	0 %	0
Agree	58 %	40
Strongly Agree	42 %	29

Table 8: Through *Project Citizen* Activities, I can identify activities that can trigger environmental problems at school.

Statement	Percentage	Total
Strongly Disagree	0 %	0
Disagree	7 %	5
Agree	55 %	38
Strongly Agree	38 %	26

Table 9: Through *Project Citizen* Activities, I can provide solutions to solve problems at school.

Statement	Percentage	Total
Strongly Disagree	0 %	0
Disagree	4 %	5
Agree	70 %	38
Strongly Agree	26 %	26

Table 10: Through *Project Citizen* Activities, I am committed to contributing to protecting the environment at least in my immediate vicinity.

Statement	Percentage	Total
Strongly Disagree	0 %	0
Disagree	0 %	5
Agree	62 %	38
Strongly Agree	38 %	26

Based on the results of the study, it shows that through *project citizen* model learning on environmental issues has proven to be able to raise students' awareness of environmental problems in schools and encourage them to take responsibility for providing problem-solving solutions and commitment to strive for environmental sustainability in the surrounding environment. Through the *project citizen* model applied in formal education in schools, it is evident that education is able to shape environmental awareness in students. In line with the objectives of education put forward by (Maftuh, 2009) that education does not only aim at the formation of knowledge or skills, but at the same time planting and giving examples such as attitudes, morals, character, speech, actions, values, morality and lifestyle to every student.. Therefore, in order for ecological citizens to have an awareness of the environment, it must involve empowering citizens to have the knowledge, skills,

and attitudes necessary to identify their values and goals in relation to the environment and be able to act according to their knowledge of the consequences that will occur.

Based on the results of the study, it shows that through the use of the *citizen project* model that discusses issues related to environmental problems, it is proven to be able to form the character of environmental care in students as an ecological *citizen*.(Berkowitz et al., 2005) (Berkowitz et al., 2005) detailed there are five components used to assess the character of environmental care. The results showed that the components of the character of environmental care as an ecological *citizen* in *project citizen* learning related to environmental issues include (1) components of civic literacy and ecological literacy, as evidenced by students being able to think critically in conducting an analysis of the factors that cause environmental problems from various perspectives along with the ecological impacts they cause. This can be seen from the results of the portfolios they have developed and the results of the reflection forms that have been filled out by students. This understanding will be a foundation for them to become active and responsible citizens in an effort to protect the environment. (2) the self-efficacy component, which is shown by the willingness of students to want to learn and be sensitive to environmental issues around them. (3) The value component of awareness and practical wisdom, shown by the commitment of students to want to care for the environment through daily behavior such as reducing the use of plastic bags, throwing garbage in its place, and bringing food using environmentally friendly containers. In addition, students also show appreciation for other people involved in efforts to protect the environment.

Conclusion

In the midst of the emergence of various environmental problems in this modern era, the formation of environmental awareness character in every citizen is very necessary. Both awareness related to the existence of environmental problems that exist around and commitment and active participation to solve these problems. To foster the character of environmental awareness can be done through education. Therefore, it is very important that students are invited to discuss issues regarding environmental problems of course with various approaches, models, and appropriate learning strategies. The application of the *project citizen* model is considered more appropriate and effective when compared to other models because it uses a student-centered learning approach and encourages students' critical thinking skills in solving a problem, one of which is related to the environment. So that way students will feel a meaningful learning. Through the *project citizen* model that raises the issue of environmental problems, it is proven that students gain knowledge, experience, skills and form an environmentally concerned character that characterizes them as an ecological citiz*en*.

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