

GREEN CONSUMPTION BEHAVIOR IN SCHOOL

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Received: 01 Feb. 2021, Revised: 10 Jun. 2021, Accepted: 30 Jun. 2021

ABSTRACT

Human activities affect the environment. Humans know the importance of protecting the environment, but they are often negligent with the waste they consumed. Education is a very significant factor in influencing Green Consumption Behavior (GCB). PBLHS is the right stimulus in fostering GCB because the implementation of PBLHS includes learning about water conservation, energy conservation, and waste management that influence GCB. With the environmental knowledge from the PBLHS, a strong attitude towards environmental conservation will be generated. But as an Adiwiyata school that has succeeded in carrying out PBLHS, there is still an attitude that does not reflect GCB. This study aims to examine the effects of environmental knowledge, environmental attitudes, and 3R behavior towards GCB, as well as to analyze the effectiveness of Adiwiyata schools in fostering the green consumption behavior of the school residents. The type of research is descriptive qualitative with quantitative support. The sampling method used is nonprobability sampling with a purposive sampling technique. The data is processed and analyzed using the SPSS25 version. The method of this analysis used multiple linear regression. The analysis results showed that simultaneously, environment knowledge, environment attitude, 3R behavior, has a significant effect on GCB. The research also showed that Adiwiyataschool is quite effective in growing the green consumption behavior, and the Green consumption behavior of the Adiwiyata school residents is higher than non-Adiwiyata schools.

Keywords: environment, green consumption behavior, environmental knowledge, environmental attitude, 3R behaviors



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INTRODUCTION

In line with UUD 1945 which states that a healthy and good living environment is a basic right of every Indonesian citizen, it has been regulated the UUNo. 32 2009 concerning the protection and management of the environment. Environmental protection and management are systematic and integrated efforts, made to preserve environmental functions and prevent environmental damage.

Environmental damage is a serious problem in all countries in the world, without exception in Indonesia. One of the factors causing environmental damage is the result of human actions. The environmental damage caused by humans is greater than the damage from natural disasters (Chmutina & Von Meding, 2019). The government's concern in solving environmental problems is manifested by the launching of an environmental development program. The success of this program is highly influenced by people's green consumption behavior.

Education is a significant factor in influencing green consumption behavior. Consumption activities are actions to use, reduce or take advantage of goods and services to meet needs (Septiana, 2015; Sudirman & Alhudori, 2018). Green consumption is also related to consumption ethics to be responsible for the impact of consumption and to strive

for environmental change efforts. Schools as a gathering place for many people can be the largest producer of waste in addition to markets, households, industry, and offices. Based on observations of researchers at SMAN 5 Payakumbuh in March 2021. During the school break time, students used plastic to wrap their food. After that, the plastic waste will end up in the trash can. As a result, plastic waste becomes the most waste produced in schools.

Schools consume energy in carrying out the teaching and learning process. From the initial observations of the researcher at SMAN 2 Payakumbuh in March 2021, it can be seen that the school runs a multimedia learning system that uses many electronic devices, such as laptops, infocus, lights, and other electronic devices to carry out quality learning. However, the large electricity costs can also be caused by energy-intensive behavior. They leave the lights on during the day or at night in classrooms where there are no learning activities anymore. The higher the electricity consumption, the higher the carbon emissions generated from power plants, because they use fossil fuels. Meanwhile, the burning of fossil fuels is the main cause of global warming, which has an impact on the global temperature of the earth. The International Energy Agency (IEA) reported that total carbon dioxide emissions reached 33.9 gigatons throughout 2020. A total of 13.5 GT came from the electricity sector.

Schools also need clean water in large quantities every day. The average water requirement for schools is 10 liters/student/day in Planning Criteria for the Directorate General of Human Settlements, Dinas PU (1996). The more the number of students, of course, the more clean water is needed. Not only student's needs, but schools also need clean water for plants. However, the large water demand also can be caused by wasteful behavior. For example, leave the water faucet on, even though water is no longer needed. As a result of the wasteful use of water, we will experience a water crisis in the future.

Behavior has three levels, namely knowledge, attitude, and action (Bloom, 1956). Education is one of the most important variables in shaping environmental care behavior, the higher a person's knowledge, the more concerned about environmental problems. Through education in schools, student's knowledge and character can be formed. In connection with efforts to implement environmental education in schools, which are associated with the implementation of Law No. 32/2009, the Minister of Environment and Forestry of the Republic of Indonesia Regulation No. P.52/MENLHK/SETJEN/KUM.1/9/2019 concerning the Care and Cultured Movement (PBLHS) was issued.

PBLHS is a movement carried out by schools to implement green consumption behavior. The PBLHS movement is expected to be able to come to the point of changing student's paradigms in changing human behavior. Meanwhile, Adiwiyata is an award for schools that have successfully implemented the PBLHS movement. Green consumption behavior is influenced by environmental knowledge, environmental concerns, and attitudes, and recycle behavior (Kaufman et al, 2012). PBLHS is the right stimulus in fostering Green consumption behavior because the implementation of PBLHS includes learning about water conservation, energy conservation, and waste management that influence GCB. With the environmental knowledge from the PBLHS, a strong attitude towards environmental conservation will be generated. But as an Adiwiyata school that has succeeded in carrying out PBLHS, there is still an attitude that does not reflect Green consumption behavior. So it is necessary to see how big the degree of success/effectiveness of the PBLHS in Adiwiyata schools is in fostering the green consumption behavior of school residents. So that the results of this study can be used to determine policies and follow up on the existence of Adiwiyata in the future.

METHODS

The type of this research is descriptive qualitative with quantitative support. The sampling method used was nonprobability sampling with a purposive sampling technique. Respondents of this study included principals, curriculum representatives, teachers, TU officers, and students. For SMAN 2 Payakumbuh as an Adiwiyata school, the number of student respondents for class X is 50 people with 30 for MIPA and 20 for IPS. Respondents were 10 people each from X MIPA 1, X MIPA 2, and X MIPA 3, X IPS 1, X IPS 2. Meanwhile, for class XI there were 50 people with 30 for MIPA and 20 for IPS. Respondents were 10 people each from XI MIPA 1, XI MIPA 2, and XI MIPA 3, XI IPS 1, XI IPS 2. While the number of respondents for Principals, teachers, and TU officers was 10 people. For SMAN 5 Payakumbuh as a Non-Adiwiyata School, the number of student respondents is more than 10 percent, because the total number of students in class X and XI is only 252 people, so it is determined that for class X is 20 people with 10 for MIPA and 10 for IPS. While for class XI there are 20 people with 10 for MIPA and 10 for IPS. While the respondents for Principals, teachers, and TU were 8 respondents. Respondents were only taken from classes X and XI because at the time of the research, class XII students had finished carrying out the National Examination and had school holidays. Respondents choose one of the alternative answers according to their daily activities, then the score of the answer assessment uses a Likert scale.

Table 1 Research Variable Scale and Measurement

No	Variabel	Qty	Variable Measurement	scale	
				1	5
1	Green Consumption Behavior	7	Green behavior	Never do	Always do
2	Environmental Knowledge	4	Environmental knowledge with its problems	Don't know anything	Know a lot
3	Environment Attitude	3	Attitude towards environmental issues	Totally disagree	Strongly agree
4	Waste management	3	3R behavior	Never do	Always do

The effectiveness was seen from the respondent's achievement level (TCR).

$$TCR = \frac{\text{average score}}{5} \times 100\%$$

If the TCR 0 – 39,99% then it is Not effective, if 40 – 59,99% it is Less Effective, if 60 – 79,99% then Effective enough, and if 80 – 100% it is devastating.

RESULTS AND DISCUSSION

3.1 The effect of environmental knowledge (environmental knowledge), environmental attitudes (environmental attitude), and waste management (3R behavior) towards green consumption behavior

Validity test

A validity test is used to determine the validity or suitability of the questionnaire. The validity test was carried out on 110 respondents with 17 questions. With the bivariate

correlation method, the product-moment was obtained from the correlation value between the item score and the total score. This value is compared with the value of the r table at a significance level of 0.05 at (n) = 110. With n = 110, the r table is 0.195. Based on the analysis, the correlation value for all items is greater than 0.195, so that all items are valid.

Table 2 Validity Test Results

Variable	Pearson Correlation	Result	Variable	Pearson Correlation	Hasil
GCB.1	.542**	Valid	EK.3	.789**	Valid
GCB.2	.681**	Valid	EK.4	.720**	Valid
GCB.3	.735**	Valid	EA.1	.855**	Valid
GCB.4	.518**	Valid	EA.2	.888**	Valid
GCB.5	.641**	Valid	EA.3	.806**	Valid
GCB.6	.571**	Valid	PS.1	.789**	Valid
GCB.7	.599**	Valid	PS.2	.891**	Valid
EK.1	.826**	Valid	PS.3	.842**	Valid
EK.2	.791**	Valid	TOTAL	1	Valid

GCB (*Green Consumption Behavior*), EK (*Environment Knowledge*), EA (*Environment Attitude*), PS (3R behavior)

Reliability Test

A reliability test was conducted to measure whether the questionnaire had consistency if the measurements were repeated. Testing was carried out on the answers of 110 respondents to the 17 questions. Based on the results of the analysis, it was found that the Cronbach Alpha value was greater than 0.6. These results illustrate that the items of the research instrument on each variable are declared reliable.

Table 3 Reliability Test Results

Variable	Cronbach's Alpha	Results	variable	Cronbach's Alpha	Results
GCB.1	0,686	reliable	EK.4	0,793	reliable
GCB.2	0,653	reliable	EK	0,783	reliable
GCB.3	0,635	reliable	EA.1	0,669	reliable
GCB.4	0,716	reliable	EA.2	0,606	reliable
GCB.5	0,679	reliable	EA.3	0,886	reliable
GCB.6	0,681	reliable	EA	0,793	reliable
GCB.7	0,693	reliable	PS.1	0,815	reliable
GCB	0,711	reliable	PS.2	0,603	reliable
EK.1	0,689	reliable	PS.3	0,717	reliable
EK.2	0,723	reliable	PS	0,792	reliable
EK.3	0,711	reliable			

GCB (*Green Consumption Behavior*), EK (*Environment Knowledge*), EA (*Environment Attitude*), PS (3R behavior)

Multiple Linear Regression Analysis

This research uses multiple linear regression analysis models. The results of the regression analysis are shown in the following Table.

Table 4 Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
GCB	9.797	2.864		3.420	.001
EK	.377	.134	.239	2.803	.006
EA	.113	.155	.063	.726	.470
PS	.671	.153	.382	4.383	.000

GCB (*Green Consumption Behavior*), EK (*Environment Knowledge*), EA (*Environment Attitude*), PS (Waste management)

Based on That table, the multiple linear regression equation in this research model is:

$$Y = 9,797 + 0,377 X1 + 0,113 X2 + 0,671 X3$$

exp:

Y : *Green Consumption Behaviour*

X1 : *Environment Knowledge*

X2 : *Environment Attitude*

X3 : *3R behavior (waste management)*

These results illustrate that the variables of environmental knowledge, environment attitude, and waste management (3R behavior) have a positive effect on green consumption behavior. This is supported by Kristiana's research (2019) which states that environmental knowledge, environmental attitude, recycling behavior, and political actions have a positive effect on green consumers' behavior. This is also supported by Lee's (2008) opinion which states that environmental behavior is influenced by seven variables, one of which is environment attitude which refers to an individual's cognitive assessment of the value of environmental protection. Correspondingly, these results also confirm (Schultz et al., 1995), which states that there is a positive relationship between environmental care and recycling behavior.

3.2 The effectiveness of Adiwiyata School in fostering the "Green Consumption Behavior" of the school residents

From the questionnaire, it was found that the level of achievement of the respondents of the Green consumption behavior of SMA 2 Payakumbuh as SMA Adiwiyata was 65.1%. Referring to table TCR it can be concluded that Adiwiyataschool is quite effective in growing the green consumption behavior of its school residents. This is also supported by research (Nada, 2020) which shows the same thing.

The green consumption behavior that grows in the psyche of the school community is influenced by the habituation of the PBLHS Movement activities that are applied in the school environment. This habit aims to change the consumption pattern of school residents towards green consumption. School residents are expected to be wisely responsible for the results of their consumption. The policies implemented in schools inspire the enthusiasm of all school members to play an active role in environmental preservation. Togas W.S in his research also concluded that green behavior from students tends to increase by starting from simple things in their daily lives. Furthermore, research by Hendriana and Jacobus (2016) suggests that to form student character it is not enough to provide information and knowledge but also exemplary and habituation is also needed. This is supported by Frinaldi (2020) which states culture/habits have a positive significance on performance. All of these statements strengthen and prove that learning and habituation in Adiwiyata schools can grow and foster green consumption behavior among school residents.

3.3 Difference between Adiwiyata and non-Adiwiyata schools in its effectiveness to grow the "Green Consumption Behavior" of the school's residence

Table 5 Green Consumption Behavior

School	GCB	EK	EA	PS
Adiwiyata	65%	81%	71%	55%
Non-Adiwiyata	49%	67%	69%	49%

From this table, it can be seen the difference between adiwiyata schools and non-adiwiyata schools. For more details, the researcher will describe it through three variables that affect green consumption behavior, namely, environmental knowledge, environmental attitude, and waste management.

- **Environmental Knowledge:** The level of environmental knowledge of Adiwiyata schools is higher than non-Adiwiyata schools. It can be seen in the previous table that the ecological knowledge of the Adiwiyataschool is 81% and 68% for non-Adiwiyata schools. This difference is influenced by teaching materials and policies made by the principal. The education unit level curriculum (KTSP) at the Adiwiyataschool has integrated Environmental Education lessons in all components of compulsory subjects, local content, and self-development. This means that all subjects already have a learning implementation plan (RPP) that is associated with the environment, both from methods, models, approaches to learning media. In terms of theory, students are provided with inserted material related to the environment, while in practice students are given activities about loving and caring for the environment, such as keeping the classroom clean, keeping plants, saving water usage, etc. To increase the environmental knowledge, the school made several posters on the school wall to provide knowledge to school residents about the need to protect the earth and its environment. There are also several posters about the need to save water and electricity consumption. For example, the school made a poster with the words "if you think breaking nature is an advantage, stop it, you just killed your self"
- **Environmental Attitude (Attitude towards the Environment):** From the previous table, environmental attitude in Adiwiyata schools is higher than non-Adiwiyata schools. The difference is influenced by policies that are formulated and applied firmly to Adiwiyata schools. This policy causes changes in the attitudes and behavior of school residents. School residents who usually don't care about saving water and electricity resources, still littering, will change when the regulations are implemented. Initially, maybe because of sanctions but over time it has turned into a responsibility to protect nature and the environment.
- **Waste Management:** For differences in waste management, a striking difference can be seen from the habit of reuse of school residents to reuse their food containers. In non-Adiwiyata schools, snacks outside are still allowed because there is no healthy canteen at this school. At the Adiwiyataschool, eating out during breaks is prohibited, students are required to bring lunch or shop at the healthy canteen. Due to COVID 19, the healthy canteen of SMAN 2 Payakumbuh is no longer operating. Each student is required to bring food from home. Especially for drinks, school residents just need to bring a container because the school already has ready-to-drink water sponsored by PDAM Payakumbuh.

If you look at it again, the level of waste management at SMAN 2 Payakumbuh is quite low. Even only slightly higher than non-Adiwiyata schools. This is not without reason. since the presence of COVID 19, waste management at SMAN 2 Payakumbuh as an Adiwiyata school is no longer running. For example, there should be three categories of garbage collection points (organic, inorganic, B3), in some places only two are left. Furthermore, the waste bank and composting site are no longer operated. Waste management greatly affects green consumption behavior. From the results of the study, it was found that waste management has a positive coefficient value of 0.671 in influencing green consumption behavior. With a low level of waste management, it will result in low green consumption behavior.

CONCLUSION

Simultaneously, the environment knowledge, environment attitude, 3R behavior have a significant effect on the green consumption behavior. The Adiwiyata program is quite effective in growing the green consumption behavior's school residents. Green consumption behavior of Adiwiyata school residents is higher than non-Adiwiyata schools.

REFERENCES

- Bloom, B. S. (1956). Taxonomy of educational objectives. Vol. 1: Cognitive domain. *New York: McKay*, 20(24), 1.
- Chmutina, K., & Von Meding, J. (2019). A Dilemma of language: "Natural disasters" in academic literature. *International Journal of Disaster Risk Science*, 10(3), 283-292.
- Frinaldi, Aldri. 2020. *The Influence Of Work Culture and Work Quality on Service Quality In 50 Kota Regency, West Sumatra*. Advance in Social Science, Education and Humanities Research, volume 510: 361-370
- Hendriana, E. C., & Jacobus, A. (2017). Implementasi pendidikan karakter di sekolah melalui keteladanan dan pembiasaan. *JPDI (Jurnal Pendidikan Dasar Indonesia)*, 1(2), 25-29.
- Kaufman, J. C. (2012). Counting the muses: development of the Kaufman domains of creativity scale (K-DOCS). *Psychology of Aesthetics, Creativity, and the Arts*, 6(4), 298.
- Nada, H. N., Fajarningsih, R. U., & Astirin, O. P. (2020). Sekolah Adiwiyata untuk Menumbuhkan Perilaku Green Consumption pada Warga Sekolah SMP Negeri 1 Wajak. Prosiding SNPBS (Seminar Nasional Pendidikan Biologi dan Saintek) Ke-5.
- Septiana, A. (2015). Analisis Perilaku Konsumsi Dalam Islam. *Dinar: Jurnal Ekonomi dan Keuangan Islam*, 2(1).
- Sudirman, S., & Alhudhori, M. (2018). Pengaruh Konsumsi Rumah Tangga, Investasi Terhadap Pertumbuhan Ekonomi di Provinsi Jambi. *Ekonomis: Journal of Economics and Business*, 2(1), 81-91.