The Analysis of Proenvironmental Behavior (PEB) through by Personality at Senior High School Students

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ABSTRACT

Pro-environment behavior (PEB) is a behavior that seeks to minimize the negative impact on the environment which is influenced by several factors such as personality. This study aimed to analyze the direct effect of personality on pro-environment behavior. This research was conducted under quantitative approach with a causal survey method and analyzed used path analyze. The respondents consisted of 200 students of class XI MIA SMAN 1 Tangerang Regency. This research shown that there was positive direct effect of personality on pro-environment behavior with a path analysis coefficient 0.159.

Keywords: Personality, Pro Environment Behavior, path analyze

INTRODUCTION

Environment is everything that exists in nature including water, air, and land and living things (plants, animals and microorganisms) that live in it (Chiras, 1990). Over time, environmental conditions change due to various human activities in an effort to meet their needs. Human behavior in order to meet their needs often causes adverse effects on the environment such as soil, water and air. Such behavior can be in the form of use of transportation, use of inorganic materials and industrial activities. The use of transportation will have an impact on carbon dioxide emissions that pollute the air. The use of inorganic materials will cause waste because it cannot be decomposed easily and will damage soil fertility. Then, the presence of industrial activities in urban areas will provide waste that damages the soil and water. Human behavior above will cause an environmental problem in the form of environmental degradation (Gifford & Nilsson, 2014).

In addition, environmental problems are also enhanced by a lack of human awareness to maintain and improve the environment so that the quality of the environment decreases (Azrai, et al., 2017). Environmental problems are now a challenge for the government and society that must be resolved (Bronfman, et al., 2015). Environmental problems that begin in human actions, the solution to overcome the problem also lies in changes in human behavior (Manolas, 2015). Therefore, to overcome these environmental problems, community behavior must contribute positively to the environment, one of which is by adopting pro-environmental behavior patterns (Steg & Vlek, 2009).

Pro-environment behavior is considered a behavior that aims to protect the environment or a form of respect for a healthy environment (Krajhanzl, 2010). Proenvironment behavior is behavior that seeks to reduce the negative impact of one's actions on the environment. This pro-environment behavior can be in the form of reducing consumption of resources and energy, using materials that are non-toxic, and reducing waste production (Kollmuss & Agyeman, 2017).

This pro-environment behavior must be instilled in each individual. One of his

efforts through learning in this material is that pro-environment behavior is expected to develop in students.

The MARS model adapted from McShane & Glinow (2015) illustrates that pro-environment behavior is influenced by several factors and mediated by several factors. Personality factor is one of the factors found in someone who influences pro-environment behavior.

Personality is a set of psychological factors and mechanisms in organized individuals that are relatively enduring and affect the interaction and adaptation of individuals in the environment, including the intraphysical, physical, and social environment (Larsen, et al., 2002). The personality possessed by every human being is different from one another. Personality is also a relatively stable set of unique characters found in individuals (Feist *et al*., 2013).

The Big Five personality or the top five personality is considered as one of the personality models that is able to represent to see someone's personality in detail (Matsumoto & Juang, 2013). This model is divided into five factors, namely openess to experience, conscientiousness, extraversion, agreeableness, and neurocitism. Through this big five personality model a person's character can be seen based on the tendency of someone to have a greater personality trait on one factor with the other four factors (Feist *et al*., 2013).

Personality tends to shape a person's character which will further shape a person's behavior. Based on his research, Krajhanzl (2010) argues that a person's personality will influence a person's behavior towards the environment. The same thing was expressed by Hirsh (2010) with the results of his research. Hirsh (2010) revealed that personality is related to pro-environment behavior. Personality of agreeableness and openness has a great relationship with pro-environmental behavior, and smaller links appear with

neuroticism and conscientiousness. Based on the previous explanation, the pro-environment behavior of students is one of the behaviors that are expected to reduce environmental problems. Therefore, research is needed on the relationship between personality and pro-environment behavior.

METHOD

This study uses a quantitative approach with a survey method. This study uses path analysis (path analysis) with exogenous variables (X_1) personality and endogenous variables (X_2), namely pro-environment behavior. The sample was taken by multistage random sampling. The number of samples in this study were 200 senior high school students. Data collection in this study used questionnaire opinion.

RESULTS AND DISCUSSION

The results of the study obtained data for the description of each of the following variavels showing the data of mean, median, mode, standard deviation, sample variation, range, maximum score and minimum score.

Table 1. Data for each variable

Statistics		PEB	Personality
N	Valid	200	200
	Missing	0	0
Mean		67,35	70,28
Median		67,00	71,00
Mode		65	68
Std. Deviation		7,524	6,682
Variance		56,609	44,643
Range		40	36
Minimum		48	48
Maximum		88	84

Linearity Test Simple Regression Model and Significance between Personality and Proenvironmental Behavior (α = 0.05)

Regression test was carried out using a simple linear regression test. Based on the calculation results obtained. (Table 2) the regression equation model between personality and motivation is $\dot{X}_2 = 24.37 + 0.628X_1$. This can be interpreted that each increase in 1 personality score (X1) will be followed by an increase in motivation of 0.628 in the constant 24.37 through the regression model $\dot{X}_2$.

Table 2. Regression of personality and pro-environmental behavior

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	32,610	5,076		6,425	0,00
Personality	0,494	0,072	0,439	6,874	0,00

Based on the significance test results obtained, the significance value is <0.05 so that the equation between personality and motivation variables is significant. Based on the linearity test of the regression equation obtained a significance value of> 0.05 so that the regression equation for personality variables with proenvironmental behavior is linear or forms a point distribution that resembles a linear line.
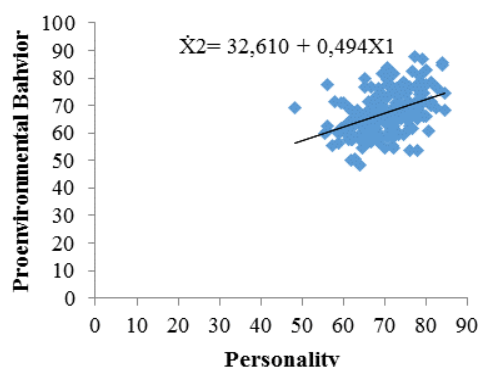

Figure 1. The simple regression linier of persoanlity and proenvironmental behavior

Correlation Test

The correlation coefficient between personality and pro-environment behavior was $(r_{12}) = 0.439$ with a significant value <0.05 (Table 2). Therefore the correlation between personality and pro-environment behavior is very significant. This means that the higher the personality of students, the higher the pro-environment behavior of students will be.

Table 3. Correlation Test Results

		Personality	PEB
Personality	Pearson Corellation	1	0,439
	Sig. (2-Tailed)		0,000
	N	200	200
PEB	Pearson Corellation	0,439	1
	Sig. (2-Tailed)	0,000	
	N	200	200

Path Analysis Test

The p_{31} path coefficient shows the direct influence of personality on pro-environment behavior. The coefficient of path analysis is equal to 0.159 and the value of tcount is 1.962 and the value of ttable for $\alpha = 0.05$ is 1.644. Therefore, the value of tcount> t table (Table 3). Therefore, personality has a direct effect on students' pro-environment behavior. The path coefficient of 0.159 means that the direct influence of personality on pro-environment behavior is 0.159. Thus, pro-environment behavior is directly influenced positively by personality.

Table 4. Path Analysis Test

Direct Effect	Path Koefi cient (p_{ij})	(sb_i)	t_{result}	t_{table} $\alpha=0,05$	Conclu sion
X_1 to X_2 (p_{21})	0,159	0,081	1,962	1,644	Sign.

Personality is a set of student characters that will shape student behavior and differentiate with other individuals. Based on the results of the study, it shows that personality has a positive direct effect on students' pro-environment behavior with a significant correlation coefficient.

Therefore, the higher the personality value, the better the pro-environment behavior of students.

The internal characteristics of the personality will influence the actions and behavior of students in their environment. Therefore, personality will lead students to distinguish between right and wrong behavior. A positive personality will lead students to positive actions. Students with positive personalities will tend to take positive actions, and students who have negative personalities will tend to act negatively towards the surrounding environment.

The results of the study conducted by Hirsh (2010) show that personality is related to one's pro-environment behavior. someone with an openness personality (open to new things, easy to absorb information) and agrreableness (friendly) have a greater pro-environmental behavior. In addition, Brick & Lewis (2014) revealed that the results of his research showed that the behavior of reducing emissions or energy was strongly influenced by the personality of openess, condcientouness, and extreavertion.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that personality influences the pro-environment behavior of SMAN 1 Tangerang Regency students with a path coefficient of 0.439. This means that the direct effect of personality on pro-environment behavior is 0.439.

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