

## Research Article

# The relationship between personal responsibility and pro-environmental intention in high schools' students

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### ABSTRACT

The role of personal responsibility is important to foster a pro-environmental intention can change students' pro-environmental behavior. This study was aimed to analyze the relationship between personal responsibility and pro-environmental intention in XI-MIPA students at SSHS of 8 Makassar, South Sulawesi. This study used a quantitative approach with a descriptive method of correlation techniques. Participants for study were 120 students. Data collection used non-test instruments. Analysis of research data used a regression model test ( $\alpha = 0.05$ ) and coefficient test with Pearson Product Moment test ( $\alpha = 0.05$ ). The results showed that there was a positive relationship between personal responsibility and pro-environmental intention. Students who have a high personal responsibility have several advantages, namely (1) can learned how to respect the rights and feelings of others, decide their own desires and the importance of being responsible; (2) able to become independent learners, able to play an active role in learning and their desires more responsibly, and (3) can learn how to respect the rights and feelings of others, decide their own desires and the importance of being responsible.



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## INTRODUCTION

Changes in ecosystems are caused by human activities, climate change, habitat changes (changes in land use and physical adjustment of natural resources) (Bellard, Bertelsmeier, Leadley, Thuiller, & Courchamp, 2014; Fedele, Locatelli, Djoudi, & Colloff, 2018; Kanianska, 2016; Rechkemmer & Von Falkenhayn, 2009; Seebacher & Franklin, 2012), population changes, over-exploitation, technological change, and pollution (Keshavarz & Karami, 2016). Various environmental problems pose a threat to the environment, including global warming, urban air pollution, lack of water, environmental noise, and loss of biodiversity (Anand, 2013; Ashurst, Hargitt, & Palmer, 2017; Ernst, Blood, & Beery, 2015; Hasnat, Kabir, & Hossain, 2018; Sadhu, Garg, & Kumar, 2018; Steg & Vlek, 2009; United Nations Environment Programme, 2017). Many of these problems are

rooted in human behavior and thus can be managed by changing relevant behaviors so as to reduce environmental impacts (Aunger & Curtis, 2016; Bornstein, Hahn, & Haynes, 2011; Hope & Jones, 2014; Kollmuss & Agyeman, 2002; Martin, Maris, & Simberloff, 2016; Michie, West, Sheals, & Godinho, 2018; Steg & Vlek, 2007, 2009).

Problem solving for the environment can be done by the community component as well as personally (Harris, 2019; Johnson et al., 2007; Zastrow, Kirst-Ashman, & Hessenauer, 2019). One effort that can be done to solve environmental problems is in the form of growing the pro-environmental intention that has an impact on behaviour (Bronfman, Cisternas, López-Vázquez, De la Maza, & Oyanedel, 2015; Curtis, Reid, & Reeve, 2014; Kinzig et al., 2013; Wray-Lake, Flanagan, & Osgood, 2010). Hines, Hungerford, and Tomera developed a model of responsible environmental behavior. In their model, the pro-environmental responsible is influenced by personality factors. One of the personality factors is personal responsibility (Pan, Chou, Morrison, & Lin, 2018).

From the point of view of psychology, responsibility can be defined as the limitation of self-chosen individuals relate to taking action depending on how it will affect others (Slavoljub, Dragica, Zorica, Zivkovic, & Sladjana, 2015). The existence of personal responsibility towards the environment, students can change the environment to be cleaner and safer. Responsibility can be regarded as an individual quality, which is reflected in the realization and emotional experience needed to do every important job for everyone, as well as one's readiness to realize responsible behavior (Dementiy & Grogoleva, 2016).

Personal responsibility is most commonly understood as accepting responsibility for its own actions, or lack of consequences (Mergler & Patton, 2007; Pickard, 2014). Personal Responsibility is the ability to regulate one's own thoughts, feelings, and behaviors, along with a willingness to be responsible for choices made based on the social and personal results (Joshi & Rahman, 2015; Manstead, 2018; Mergler, 2008; Pan et al., 2018). Personal Responsibility is defined as the belief that someone is the ruler of his life, aware of his choices and goals and is willing to demand accountability for his behavior and get the consequences (Bennet, 2017; Boysen, 2013; Mergler & Shield, 2016).

The Hines model explains that intention to act is influenced by ability, knowledge and personality factors. In the model, locus of control is in personality factors along with attitudes and personal responsibility. Based on previous exposure, personal responsibility is one of the factors that influence students' pro-environmental intention. Therefore, research is needed on the relationship between personal responsibility and pro-environmental intention.

## METHOD

This study used multiple correlational designs. This study used a quantitative approach with a descriptive method of correlation techniques. The location of study was in students of XI-MIPA at State Senior High School (SSHS) of 8 Makassar, South Sulawesi. Participants for the study were 120 students (valid responses). Sample was based on multistage random sampling technique. Data collection used non-test instruments. The survey questionnaire was divided into two sections: personal responsibility and pro-environmental intention were 5-point likert scales from 5 (very accurate) to 1 (not accurate).

Procedure after determining the variables and objectives of the study, researchers conducted a study use non-test instrument in the form of a questionnaire. The results of the questionnaire about personal responsibility will be related to the results of the questionnaire about students' pro-environmental intention. The research was conducted in July 2018.

Analysis of research data used two tests, the prerequisite test; normality test used kolmogorov-smirnov test and homogeneity test used levene test and hypothesis test; test regression model ( $\alpha = 0.05$ ) and the correlation coefficient test with Pearson product moment test ( $\alpha = 0.05$ ).

## RESULTS AND DISCUSSION

The data are presented in Table 1 (Data for each variable), Table 2 (Regression coefficient test results), Table 3 (Pearson product moment correlation test), and Table 4 (Determination coefficient ( $R^2$ ) test results). Data for the description of each of the followed variables shows the average, median, standard deviation, sample variation, range, maximum score and minimum score.

Based on the data obtained a significance value that is smaller than  $\alpha$  (0.05) which is 0.027, means that the regression coefficient is significant. The regression equation model formed is  $\hat{Y} = 61,910 + 0,191X_2$ . The calculated significance level is smaller than the significance level of the test set, which is  $0.027 < 0.05$ , the model of the relationship between the two variables was linear. Based on these equations, it can be interpreted if

there is an increase of 1 score of personal responsibility then it will be followed by an increase in pro-environmental intention of 0.191 in the constant 61.910 through the regression model  $\hat{Y}$ .

The correlation analysis test uses the Pearson Product Moment test. Based on the correlation table (Table 3), it is known that the correlation coefficient between personal responsibility and pro-environmental intention is 0.202, that there is a positive correlation, also obtained a significance value that is smaller than alpha, which is  $0.027 < 0.05$ , which means that there is a significant relationship between personal responsibility and pro-environmental intention.

Table 1. Data for each variable

Data Description	Statistics	
	PR*	PEI*
Mean	82.68	77.10
Std. Deviation	10.72	10.83
Variance	114.92	117.38
Range	54	42
Minimum	45	51
Maximum	99	93
Sum	9922	9252
N	120	120

\*PR= Personal Responsibility, PEI= Pro-Environmental Intention

Table 2. Regression coefficient test results

Model		Unstd. Coef		Std Co. Beta	t	Sig.
		B	Std. E			
1	(Ctnt)	61.910	6.862	.202	9.021	.000
	pr	.191	.086		2.236	.027

a. Dependent Variable: pro-environmental intention

Table 3. Pearson product moment correlation test

	Model	Personal Responsibility	Pro-Env.Intention
Personal Responsibility	Pearson Correlation	1	.202 <sup>a</sup>
	Sig.(2-tailed)		.027
	N	120	120

Table 4. Determination coefficient (R<sup>2</sup>) test results

Model	R	R Square
1	.202 <sup>a</sup>	.041

a. Predictors: (Constant), Personal Responsibility

The calculation data obtained determinant coefficient value determination (R<sup>2</sup>) equal to 0.041. These results indicated that the variable personal responsibility contributes to the students' pro-environmental intention of 4.1% while 95.9% is related to other factors.

Students who have a high personal responsibility can learned how to respect the rights and feelings of others, decide their own desires and the importance of being responsible. This results are relevant to those proposed by Ernst et al. (2015), Mergler and Shield, 2016), and Wray-Lake et al (2010) that students who have high personal responsibility can develop sensitivity to others (including compassion, empathy and interpersonal skills) and the ability to apply learning throughout programs into wider life (eg schools, homes).

Students who have higher personal responsibility are able to become independent learners, able to play an active role in learning and their desires more responsibly. According to Mergler (2008); Mergler and Patton (2007); and Mergler and Shield (2016) students with higher personal responsibility are able to become confident individuals, more responsible and creative desires including the ability to make rational and informed decisions about their lives and accept responsibility for their actions.

Students who have a high personal responsibility can learn how to respect the rights and feelings of others, decide their own desires and the importance of being responsible. For example, when given responsibility for protecting the environment, students who have a high personal responsibility will keep the environment clean.

Personal responsibility to the environment is the belief of a student to fulfill obligations and reduce consequences by not blaming the circumstances of the actions he made on the environment so that the existence of a high personal responsibility within the student can increase pro-environmental intention. This

results were also supported by the findings of Pan et al. (2018), who argued that personal responsibility for the environment had an influence on one's desires which had an effect on the behavior of the environment itself.

This integrative literature review has examined the literature available in educational research that focuses on the quantitative measurement of personal responsibility in participants from high school. Contributions to new knowledge have been made by examining the similarities and differences in quantitative definitions and measures of personal responsibility.

## CONCLUSION

The results showed that there was a positive relationship between personal responsibility and pro-environmental intention. The results indicated that the variable personal responsibility contributes to the students' pro-environmental intention of 4.1% while 95.9% is related to other factors. Students who have a high personal responsibility have several advantages, namely (1) can learned how to respect the rights and feelings of others, decide their own desires and the importance of being responsible; (2) able to become independent learners, able to play an active role in learning and their desires more responsibly, and (3) can learn how to respect the rights and feelings of others, decide their own desires and the importance of being responsible.

As a growing sense of personal responsibility continues to be the focus of national education policy, it is important that research in this field be systematically built. Providing systematic empirical data about the role of personal responsibility in educational outcomes for students serves to guide educational policy meaningfully. Understanding the ways in which researchers explore the development of personal responsibility has been defined, conceptualized and measured its construction can explain the direction for future research.

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