

Model of Environmental Caring Character Development in SMA Lubuklinggau City

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Submission date: 07-May-2023 09:42AM (UTC+0700)

Submission ID: 2086187938

File name: mental_Caring_Character_Development_in_SMA_Lubuklinggau_City.pdf (559.31K)

Word count: 2991

Character count: 15538

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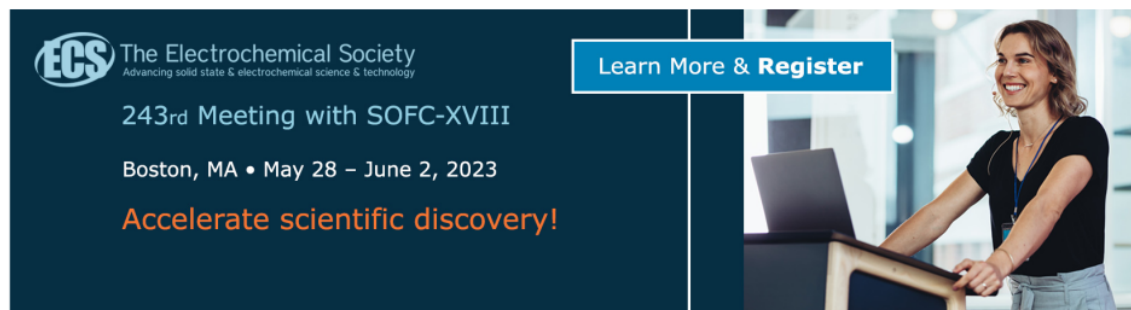
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To cite this article: Warah *et al* 2021 *IOP Conf. Ser.: Earth Environ. Sci.* **810** 012019

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Model of Environmental Caring Character Development in SMA Lubuklinggau City

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Abstract. This research is motivated by the issue of rampant environmental damage that has occurred due to the increasing exploitation of natural resources by humans. The exploitation of natural resources occurs as a result of the increasing human population growth, so that in order to meet their needs, more resources are needed. Another trigger is that humans have a materialistic nature that triggers them to obtain greater economic results in exploiting their environment. The problem is, the exploitation carried out is not accompanied by the principle of natural conservation, so that exploitation of natural resources has an impact on environmental degradation. As a solution, a caring character development model is needed which is oriented to develop a caring attitude towards humans. Regarding this solution, it is also necessary to carry out an analysis to identify the aspects that play a role in encouraging the effectiveness of the implementation of environmental education. This research was carried out at SMA Kota Lubuklinggau. The research was conducted with a quantitative approach. Collecting research data in this study is primary data. The data collection technique used was the questionnaire distribution technique. The population in this study were 9 high school level public schools in Lubuklinggau City. In this study, testing was carried out on two models, namely the agency model for the structure and the structure model for agency.

1. Introduction

The environment is an aspect of life for all creatures on the surface of the earth. At this time the world is faced with the phenomenon of environmental degradation, which has entered a very worrying condition for human life [1]. Thus the environment becomes a container for the interaction of living things which then forms a network of life [2]. Recently, the main source of environmental damage has been realized from humans. As a result of human greed for products that can be exploited in the natural environment, humans have a tendency to act arbitrarily towards their environment [3]. The principle of preserving the environment is often neglected in order to meet their needs and the desires of humans themselves. The existence of efforts to make people aware of the importance of preserving the environment needs to be done. One way to achieve this goal is through environmental education activities [4].

In its implementation according to the national education system, environmental education is carried out within the framework of character education, namely education aimed at achieving 18 character values for students, including the character of caring for the environment [5]. Character education can be analyzed using the Anthony Giddens structuration theory approach.

In his theory, Giddens states that the basic domain of the study of social sciences is not the experience of each actor or the existence of any form of societal totality, but social practices that occur throughout time and space [6]. To strengthen its argument, structuration theory places two concepts



that are key in the series of determination of Giddens' views, namely agency and structure that are dually related in shaping social reality.

The structure in this study is the character of caring for the environment, while the agency in this study is an indicator of socialization, teacher role models, peer interaction, reward and punishment, symbols in the form of factors that affect environmental education in each school. The structure in this study is the character of caring for the environment, while the agency in this study is an indicator of socialization, teacher role models, peer interaction, reward and punishment, symbols in the form of factors that affect environmental education in each school.

2. Method

The method used in this research is quantitative method. Therefore, it is important to clarify what variables you want to measure at this stage of research [7]. In this stage, the research intends to test one variable in the study, namely the factors that influence environmental education in public high schools in Lubuklinggau City, South Sumatra Province. Because the number of variables is only one (single variable), the type of quantitative used is inferential quantitative. Inferential quantitative only tests a few variables with predetermined objectives.

Collecting research data in this study is primary data. The data collection technique used was the questionnaire distribution technique. The questionnaire is made in the form of statements submitted to respondents. These statements are made based on five indicators, namely socialization, teacher role models, peer interaction, reward and punishment, symbols in the form of factors that affect environmental education in each school. Measurement of this indicator through statements using a Likert attitude scale. The population in this study were 9 high school level public schools in Lubuklinggau City. The number of students from all schools was 5,634 people. The sample size is calculated using the Slovin formula.

With the formula above, the sample size is 373 people. The sample is distributed in all schools proportionally. Determination of the sample using purposive sampling technique. Only students in class XI and XII were the research sample. This decision was taken based on the assumption that class X students had not experienced life in school for a long time so that knowledge of environmental education patterns was deemed not good enough. From the first model, the following hypotheses are generated: The variables of socialization of the value of environmental care and teacher role models and peer interaction and reward and punishment and symbols have a significant effect on the character of environmental care. From the second model, the following hypothesis is generated :

- a) The character of environmental care has a significant effect on the socialization of environmental care values.
- b) The character of environmental care has a significant effect on teacher role models.
- c) The character of environmental care has a significant effect on peer interaction.
- d) The character of environmental care has a significant effect on reward and punishment.
- e) The character of environmental care has a significant effect on symbols.

From the second model, the following hypotheses are generated: The variables of socialization of the value of environmental care and teacher exemplary and peer interaction and reward and punishment and symbols have a significant effect on the character of environmental care. The quantitative data analysis technique used in this study was SEM. SEM is a good environmental education model. Structural Equation Modeling or structural equation modeling, hereinafter referred to as SEM, is an inferential statistical analysis used to map the relationship between latent variables. SEM is divided into two types, namely covariance-base SEM (CB-SEM) and Variance-based SEM or partial least squares SEM (PLS-SEM). According to CB-SEM developed around 1970 which was pioneered by Karl Joreskog as a Lisrel software developer while PLS-SEM began to develop after CB-SEM, PLS-SEM was pioneered by Herman Wold who was an academic advisor. Karl Joreskog [8].

In this study, there are 78 item indicators in the questionnaire and the resulting data is not normally distributed, so this research uses PLS-SEM where the CB-SEM assumptions are not fulfilled. PLS-SEM calculations in this study use the SmartPLS 3 application, in general there are 2 tests to be carried out on this smart PLS, namely the Evaluation of Measurement Model and the Evolution of Structural Model [9].

3. Discussion

The evaluation of structural model testing in this study was carried out on the two models in this study, to see the R-Square of endogenous variables, the value of the path coefficient and the value of the direct effect [10]. The following is a picture of a path diagram that has passed the validity and reliability test that will be tested for the Evaluation of structural model :

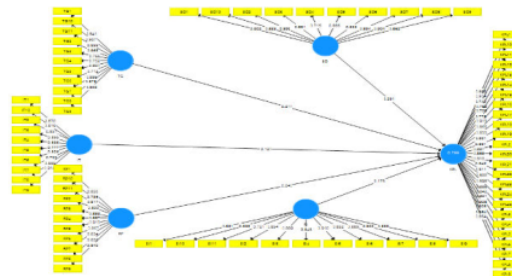


Figure 1. First model path diagram

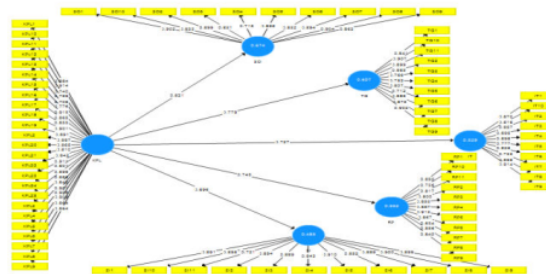


Figure 2. Second model path diagram

3.1. R-Square

This R-Square test is used to see how much influence the exogenous variables as a whole have on endogenous variables, the results of this R-square value will be multiplied by 100 to see the percentage of influence, the following are the results of the R-square value for model 1 and model 2 :

Table 1. The *R-square* value of first model

R Square	
KPL	0.799

Source: SmartPLS 3 data processing results

Table 2. The *R-square* value of second model

R Square	
IT	0.529
RP	0.552
SI	0.485
SO	0.674
TG	0.607

Source: SmartPLS 3 data processing results

Based on the table above, it can be seen that the R-square value in the two models in this study, based on the analysis of the two tables above, it can be described as follows :

- a) The first R-Square model : KPL is influenced by SO, TG, IT, RP and SI, the R-Square value is obtained of 0.799, which means that the character of environmental care is influenced by socialization, teacher role models, interaction, reward and punishment of 79.9%
- b) Second R-square model :
 1. IT is influenced by KPL, the R-Square value is obtained of 0.529, which means that the interaction of students is influenced by the character of caring for the environment by 52.9%
 2. RP is influenced by KPL, the R-Square value is obtained of 0.552, which means that reward and punishment is influenced by the character of environmental care by 55.2%
 3. SI is influenced by KPL, the R-Square value is obtained of 0.485, which means that the symbols are influenced by the character of environmental care by 48.5%
 4. SO is influenced by KPL, the R-Square value is 0.674 which means that the socialization of students is influenced by the character of environmental care by 67.4%
 5. TG is influenced by KPL, the R-Square value is obtained of 0.604, which means that the teacher's role model is influenced by the character of caring for the environment by 60.4%

3.2. Path coefficient

Path coefficient is an analysis used to show the direction of the relationship between exogenous variables and endogenous variables. In this study the path coefficient was tested on both models, the results of the path coefficient testing in this study were as follows:

Table 3. First model path coefficient

	KPL
IT	0,127
RP	0,240
SI	0,173
SO	0,291
TG	0,217

Source: smartPLS data processing results

Tabel 4. Second model path coefficient

	IT	RP	SI	SO	TG
KPL	0,727	0,743	0,696	0,821	0,779

Source: SmartPLS data processing results

Based on the table above, it can be seen that the path coefficient value in the two models in this study, based on the analysis of the two tables above, it can be described as follows:

- a) The IT, RP, SI, SO, TG variables have a path coefficient of value above zero to the KPL variable which can be concluded that student interaction, reward and punishment, symbols, student socialization and teacher role models have a positive effect on environmental care character variables
- b) The KPL variable has a path coefficient of value above zero on the IT, RP, SI, SO and TG variables which can be concluded that the character caring for the environment variable has a positive effect on student interaction, reward and punishment, symbols, student socialization and teacher role models.

3.3. Significance Test of Direct Effect / Hypothesis Test

Significance test of direct influence in research to test the hypothesis whether the hypotheses are rejected or accepted. Tests were carried out on both models to see the P-value of exogenous variables against endogenous variables. The exogenous variable is said to have a significant effect if the P-value is below 0.05, here are the results of the significance test for the two research models :

Table 5. Significance test results for the first model

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
IT -> KPL	0.127	0.124	0.049	2.584	0.010
RP -> KPL	0.240	0.248	0.063	3.835	0.000
SI -> KPL	0.173	0.173	0.048	3.586	0.000
SO -> KPL	0.291	0.288	0.070	4.178	0.000
TG -> KPL	0.217	0.213	0.058	3.722	0.000

Source: SmartPLS data processing results

Based on the significance test table for the first model in the table above, the following conclusions can be drawn:

- a) Student interaction has a significant effect on the character of environmental care with a P-value of 0.010
- b) Reward and punishment has a significant effect on the character of environmental care with a P-value of 0,000
- c) Symbols have a significant effect on environmental care characters with P-values of 0.000
- d) Student socialization has a significant effect on the character of caring for the environment with a P-value of 0.000
- e) Teacher role models have a significant effect on the character of caring for the environment with a P-value of 0.000

Table 6. Significance test results for the second model

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values
KPL -> IT	0.727	0.728	0.040	18.275	0.000
KPL -> RP	0.743	0.744	0.048	15.372	0.000
KPL -> SI	0.696	0.698	0.046	15.239	0.000
KPL -> SO	0.821	0.821	0.032	25.849	0.000
KPL -> TG	0.779	0.781	0.036	21.882	0.000

Source: SmartPLS data processing results

Based on the significance test table of the 2nd model in the table above, it can be concluded that the character of environmental care has a significant effect on student interaction, reward and punishment, symbols, student socialization and teacher role models with a p-value of 0,000.

4. Conclusion

In this research, it can be concluded that the indicators and variables that have been found in the first phase of research are valid and reable. This is evident in the evaluation of measurement model testing in this stage II research. Then the test is continued in the evaluation of structural model test. From this test it can be concluded that all hypotheses in both the 1st and 2nd models can be accepted. This is in line with Anthony Gidden's structuration theory which states that agency and structure support each other with their duality relationship. The agency in this case the socialization of environmental care values, teacher examples, peer interaction, reward & punishment, and symbols influencing the formation of social structures in this case is the character of students who care about the environment. Conversely, the character of students who care about the environment can also influence the formation.

References

- [1] Mahfud, Solihin, and Dwi Ratmono 2013 *Analisis SEM-PLS Dengan WarpPLS 3.0.* (Yogyakarta: Andi)
- [2] Rusdina, A 2015 *Membumikan Etika Lingkungan Bagi Upaya Membudayakan Pengelolaan*

- Lingkungan Yang Bertanggungjawab *Jurnal Pengelolaan Lingkungan* **IX** (2): 247
- [3] Uar, Netty Dahla, Sigit Heru Murti, and Suwarno Hdisusanto 2016 Kerusakan Lingkungan Akibat Aktivitas Manusia Pada Ekosistem Terumbu Karang *Jurnal MGI* **30** (1): 89
- [4] Saputri D K D, Wati D and Trisiana A 2018 Meningkatkan Karakter Cinta Lingkungan Sebagai Kepedulian Sisiwa Terhadap Pendidikan Lingkungan Hidup. *Global Citizen: Jurnal Ilmiah Kajian Pendidikan Kewarganegaraan* **6**(2) 78–86
- [5] Adisendjaja Y H and Romlah O 2008 Pembelajaran Pendidikan Lingkungan Hidup : Belajar Dari Pengalaman Dan Belajar Dari Alam *Journal IAIN Pekalongan* **3**: 0–11
- [6] Hamzah and Syukri 2013 *Pendidikan Lingkungan Sekelumit Wawasan Pengantar* (Bandung: PT. Refika Aditama)
- [7] Giddens and Anthony 2010 *Teori Strukturasi: Dasar-Dasar Pembentukan Struktur Sosial Masyarakat* (Yogyakarta: Pustaka Pelajar)
- [8] Creswell and Jhon W 2016 *Pendekatan Metode Kualitatif, Kuantitatif, Dan Campuran*. (Yogyakarta: Pustaka Pelajar)
- [9] Sarwono and Jonathan 2015 *Membuat Skripsi, Tesis, dan Disertasi Partial Least Square SEM (PLS-SEM)* (Yogyakarta: CV. Andi Offset)
- [10] Bangun and Wawas 2020 *Tutorial Smart Pls Dan Alasan Kenapa Kalian Ga Perlu Pake SPSS Lagi*(*THE CLASS - Episode 1*). Indonesia.

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