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### The Impact of Ecological Schools on Students' Environmental Character Through School Culture in Ecological Schools in Purwakarta District

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#### ABSTRACT

Ecological schools in organizations, especially schools, will create a high school culture so that it will influence the character of the student environment so that it can achieve maximum quality. This research aims to determine the impact of ecological schools on students' environmental character through school culture in ecological schools throughout Purwakarta Regency. The research used is explanatory research with a quantitative approach. The population in this study were 20 ecological schools in Purwakarta Regency. The sample in this research was 100 people/respondents. The sampling technique used in this research was a saturated sampling technique where all members of the population were sampled. The data collection method used is by distributing questionnaires and documentation. The data analysis used is descriptive statistical analysis and inferential statistical analysis using smart pls with the t test as hypothesis testing. The results of the research that has been carried out show that ecological schools influence students' environmental character, ecological schools influence school culture, school culture influences students' environmental character and ecological schools influence students' environmental character through school culture in ecological schools throughout Purwakarta Regency. The conclusion of this research is that there is an influence of school ecology and school culture on the environmental character of students in ecological schools throughout Purwakarta district, both individually and through school culture.

**Keywords:** *Ecological school, school culture, students' environmental character*

#### 1. Introduction

Today, the New Order-era development model is still evolving. This is characterized by the state's practice of handing over the management of public rights such as water and land to capital owners. The mismanagement and mismanagement of nature has apparently not become an important lesson for current decision-makers to change the development paradigm. Likewise, the public in general has not been critical at the level of state relations.

Under the system of global capitalism, Indonesia is currently faced with various problems. The democratic system that is supposed to bring the people a better future in terms of welfare, social, economic and cultural is still very far from the core of democracy. Or in other words, "far from the fire". It is a small group of financiers who benefit a lot from the results of dredging up Indonesia's natural resources. Meanwhile, the people continue to be marginalized and marginalized by this practice. The increasingly strong alliance between capital groups and bureaucrats has had an adverse impact on the safety of the environment and Indonesia's economic democracy as mandated in Article 28 H and Article 33 paragraph (4) of the 1945 Constitution.

Internally, the environmental movement is committed to restructuring its organization and movement patterns. The revamping arises from the evaluation and realization that in the future the efforts to seize the sources of life and maintain environmental sustainability will be increasingly difficult. First, because the hegemony of liberalism continues to strengthen its influence under the cover of global interests. Secondly, it has also been supported by the dominant political forces in the country.

These two things should be the basis for the civil society movement and especially the environmental movement to realize and strengthen the attitude that change cannot be implemented alone and be able to succeed without broad support from the people. For this reason, the environmental movement needs to open itself as widely as possible in order to build solidity in carrying out the Restore Indonesia agenda and reclaim the sources of life from the power of capital.

The Ecology School in Purwakarta was established in response to the urgent need for education integrated with environmental awareness and local wisdom. This initiative reflects the vision of Purwakarta District to develop a young generation that is self-reliant in food management and ecologically conscious.

The fundamental reasons behind the establishment of the School of Ecology include the following: Food Independence where Sekolah Ekologi aims to establish a culture of food independence among the younger generation. This is realized by students learning to manage school land as a place to grow crops, which encourages them to engage in food production activities independently.

Strengthening Environmental Governance where this education program encourages all school members to play an active role in maintaining environmental cleanliness and sustainability, creating a green and healthy atmosphere around them.

Local Culture Integration where the Ecology School in Purwakarta incorporates lessons based on local culture and history in environmental education, bringing students closer to and appreciating their own culture. With this approach, schools play an important role in creating a generation that cares about the environment, is self-reliant and has a strong character in advancing their community.

From the results of temporary observations, information was obtained that ecological school activities in Purwakarta Regency have not gone well. This can be seen from the following phenomena or problems:

1. Lack of Integrated Waste Management. Schools lack the implementation of waste management from sorting, processing, to recycling to reduce negative environmental impacts.

2. The Food Independence Program has not yet had an impact. Students are less involved in farming activities that aim to teach food security and optimal land utilization.
3. Lack of Use of Renewable Energy. There is a lack of effort to use renewable energy sources, such as solar panels, for school operational needs.
4. Lack of Environment-Based Learning Activities. Teaching materials do not integrate lessons on ecology and local culture, not increasing students' understanding of the environment and local wisdom.
5. Lack of Local Plant Preservation. Schools are not planting and maintaining native plants as part of their efforts to preserve biodiversity.
6. Lack of Environment-Based Character Education. Lack of focus on character building that reflects concern and responsibility for the environment
7. Lack of School Community Involvement. The school community lacks Inviting the entire school community, including students, teachers, and parents, to be active in environmental programs so as to create a collective awareness of the importance of protecting the surrounding nature.

Apart from Ecological School, one of the other factors that influence students' environmental character is school culture. School culture is a pattern of values, traditions, principles, and habits that prevail in the school environment. Some important characteristics of school culture are (1) It plays a very important role in improving the quality of education. (2) Has a significant influence on student learning activities and teacher performance in teaching. (3) Serves as a means of character cultivation, where students not only get character education through formal learning.

Based on temporary observations, the school culture of schools in Purwakarta district has not been running well. This can be seen from the following phenomena and problems:

1. The lack of consistency in the Monday Ajeg Nusantara program where schools are less focused on instilling national values and national insight to students through nationalism activities.
2. Lack of consistency in the Tuesday Mapag Buana culture where the school does not train students in understanding cultural diversity by wearing Sundanese clothing, such as black shirts and headbands.
3. The lack of consistency of Rebo Maneuh culture in Sundanese where schools do not increase Sundanese identity and identity for students to maintain and preserve local culture.
4. The lack of consistent culture of Kemis Nyucikeun Diri where students are less focused on the value of spirituality and religion, including religious activities to strengthen students' religious character.
5. Lack of consistency in the Friday Tilik Kampung culture where the school does not encourage students to learn from life around them by visiting and helping in the neighborhood to strengthen social awareness.
6. Lack of consistency in the Saptu Mantep Kahareup culture where schools do not instill the spirit of future preparation through skills and knowledge training that is beneficial for students' future.
7. There is a lack of consistency in the Sunday Cageur Bageur culture where schools do not encourage healthy and fit living habits by emphasizing the importance of physical and mental health in daily life.

Students' environmental character refers to their attitudes, concerns, and actions towards the surrounding environment. This character reflects students' sensitivity in maintaining, preserving, and improving environmental conditions. Environmental care attitudes in students can be formed through character education that emphasizes habits such as maintaining cleanliness, reducing waste, and preserving nature, as well as increasing responsibility for the surrounding environment. By developing the character of environmental care, students are expected to be more aware of the impact of their actions on nature and motivated to play an active role in protecting the environment in a sustainable manner.

Based on temporary observations, the ecological school activities in Purwakarta Regency have not run optimally and the school culture has not been consistently applied. This has an impact on the poor environmental character of students. This can be seen from the following problems and phenomena:

1. Lack of Mutual Cooperation and Caring for Others where students are less trained to work together in maintaining the school environment and helping friends who are experiencing difficulties. This principle of mutual cooperation forms an attitude of empathy and social responsibility in students in maintaining the school environment.
2. Lack of Character Education. The character education implemented in Purwakarta does not emphasize the importance of tolerance and harmony in differences, so this does not support the creation of a conducive learning atmosphere, which strengthens students' concern for the physical and social environment.
3. Lack of local culture base where character building is less based on local culture that can facilitate students to be actively involved in protecting the surrounding environment, as well as the lack of adapting to social values that are relevant in everyday life.
4. Lack of Integrity and Nationalism. The lack of character model development in Purwakarta includes the values of integrity and nationalism, which also relate to students' caring attitude towards their surrounding environment.

Based on the background of the problems described above, the researchers tried to conduct a research entitled "The Impact of Ecological Schools on Students' Environmental Character Through School Culture at Ecological Schools in Purawakarta Regency".

## **2. Methods**

The research method used in this research is a case study with a quantitative approach. The population in this study were 2000 students at the Purwakarta Regency Ecology Elementary School. The sample for this research consisted of 100 respondents using a judgment sampling technique where the sampling technique used was based on certain considerations. data collection techniques using questionnaires or questionnaires with data analysis techniques using SEM (Structural Equation Model) with late statistical tests using smartpls 4 and sobel test.

### 3. Results and Discussion

#### 3.1. Results

**Table 1:** Descriptive Statistical Findings of the Impact of Ecological Schools on Students' Environmental Character through School Culture in Ecological Schools in Purwakarta Regency

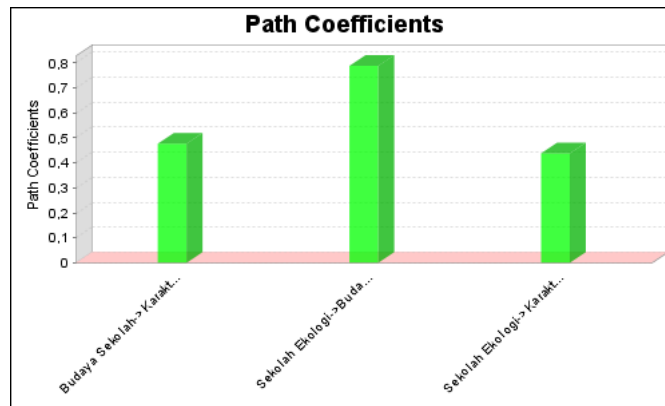
	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
SE1	1.000	0.000	4.270	5.000	1.000	5.000	0.988	2.078	-1.515
SE2	2.000	0.000	4.210	4.000	2.000	5.000	0.840	0.683	-1.034
SE3	3.000	0.000	4.390	5.000	2.000	5.000	0.847	1.535	-1.451
SE4	4.000	0.000	3.930	4.000	2.000	5.000	0.875	-0.592	-0.408
SE5	5.000	0.000	3.760	4.000	1.000	5.000	1.124	-0.575	-0.585
SE6	6.000	0.000	4.100	4.000	1.000	5.000	0.985	1.243	-1.161
SE7	7.000	0.000	3.980	4.000	2.000	5.000	0.969	-0.737	-0.561
BS1	8.000	0.000	4.090	4.000	2.000	5.000	0.838	-0.666	-0.484
BS2	9.000	0.000	4.480	5.000	2.000	5.000	0.830	0.925	-1.425
BS3	10.000	0.000	4.370	5.000	2.000	5.000	0.945	0.237	-1.241
BS4	11.000	0.000	4.090	4.000	2.000	5.000	0.939	-0.917	-0.550
BS5	12.000	0.000	4.190	4.000	2.000	5.000	0.902	-0.898	-0.637
BS6	13.000	0.000	4.070	4.000	2.000	5.000	0.908	-0.535	-0.628
BS7	14.000	0.000	3.760	4.000	1.000	5.000	1.106	-0.533	-0.545
KLS1	15.000	0.000	3.790	4.000	1.000	5.000	1.125	-0.602	-0.558
KLS2	16.000	0.000	4.080	4.000	2.000	5.000	0.913	-0.547	-0.641
KLS3	17.000	0.000	4.070	4.000	2.000	5.000	0.930	-0.708	-0.596
KLS4	18.000	0.000	4.120	4.000	2.000	5.000	0.930	-0.579	-0.698

Based on the table above, it can be seen that the largest average indicator is SE3 from the Ecological School variable. While the lowest average value is in the SE7 and BS5 indicators of the Ecological School and School Culture variables. Based on the median, the largest median is in SE1, SE3, BS2, BS3 which are all part of the indicators of the Ecological School and School Culture variables. While the lowest median is in the KK1, KK2, BS3, KS2 and KS3 indicators which are indicators of the Ecological School, School Culture and Student Environmental Character variables. Then the varied respondents' answers were on the KLS1 indicator, namely the Student Environmental Character variable with a standard deviation of 1.125. While the respondents' less varied answers were on the BS2 indicator, namely from the School Culture variable with a standard deviation of 0.830.

**Table 2:** Descriptive Statistics of the Degree of Relationship Between Each Indicator of the Research Variable

	BS 1	BS 2	BS 3	BS 4	BS 5	BS 6	BS 7	K LS 1	K LS 2	K LS 3	K LS 4	SE 1	SE 2	SE 3	SE 4	SE 5	SE 6	SE 7
BS 1	1.0 00	0.5 70	0.4 63	0.5 24	0.7 05	0.6 22	0.4 34	0.5 82	0.6 83	0.5 57	0.6 28	0.5 26	0.3 43	0.3 45	0.6 09	0.3 10	0.6 80	0.6 18
BS 2	0.5 70	1.0 00	0.6 53	0.4 06	0.6 39	0.3 80	0.3 11	0.2 26	0.4 24	0.5 52	0.4 43	0.4 15	0.2 00	0.4 02	0.3 90	0.3 06	0.2 47	0.3 47
BS 3	0.4 63	0.6 53	1.0 00	0.4 13	0.6 68	0.3 31	0.3 15	0.1 86	0.2 67	0.4 82	0.2 91	0.4 18	0.2 17	0.5 82	0.3 46	0.2 44	0.2 93	0.2 48
BS 4	0.5 24	0.4 06	0.4 13	1.0 00	0.4 52	0.6 84	0.4 83	0.6 71	0.5 51	0.4 74	0.6 29	0.4 15	0.3 69	0.2 07	0.5 55	0.4 00	0.5 20	0.5 51
BS 5	0.7 05	0.6 39	0.6 68	0.4 52	1.0 00	0.5 08	0.3 77	0.4 24	0.6 25	0.7 35	0.5 80	0.3 91	0.2 38	0.3 48	0.6 12	0.2 13	0.4 29	0.5 30
BS 6	0.6 22	0.3 80	0.3 31	0.6 84	0.5 08	1.0 00	0.3 05	0.7 68	0.6 20	0.5 86	0.7 00	0.5 80	0.4 39	0.3 93	0.6 61	0.4 08	0.6 96	0.7 63
BS 7	0.4 34	0.3 11	0.3 15	0.4 83	0.3 77	0.3 05	1.0 00	0.3 13	0.4 05	0.5 51	0.3 59	0.2 70	0.1 51	- 0.0 07	0.4 58	0.0 42	0.3 34	0.2 75
K LS 1	0.5 82	0.2 26	0.1 86	0.6 71	0.4 24	0.7 68	0.3 13	1.0 00	0.6 00	0.5 68	0.8 07	0.4 74	0.2 69	0.2 64	0.6 66	0.3 79	0.6 51	0.6 56
K LS 2	0.6 83	0.4 24	0.2 67	0.5 51	0.6 25	0.6 20	0.4 05	0.6 00	1.0 00	0.6 76	0.6 83	0.5 30	0.4 08	0.3 35	0.6 71	0.2 33	0.5 25	0.6 01
K LS 3	0.5 57	0.5 52	0.4 82	0.4 74	0.7 35	0.5 86	0.5 51	0.5 68	0.6 76	1.0 00	0.6 37	0.5 99	0.3 39	0.4 22	0.7 31	0.2 94	0.5 16	0.4 90
K LS 4	0.6 28	0.4 43	0.2 91	0.6 29	0.5 80	0.7 00	0.3 59	0.8 07	0.6 83	0.6 37	1.0 00	0.4 11	0.2 62	0.2 70	0.7 48	0.3 43	0.6 09	0.7 68
SE 1	0.5 26	0.4 15	0.4 18	0.4 15	0.3 91	0.5 80	0.2 70	0.4 74	0.5 30	0.5 99	0.4 11	1.0 00	0.6 66	0.7 70	0.4 96	0.3 37	0.4 04	0.3 71
SE 2	0.3 43	0.2 00	0.2 17	0.3 69	0.2 38	0.4 39	0.1 51	0.2 69	0.4 08	0.3 39	0.2 62	0.6 66	1.0 00	0.6 15	0.3 47	0.3 92	0.3 13	0.2 51
SE 3	0.3 45	0.4 02	0.5 82	0.2 07	0.3 48	0.3 93	- 0.0 07	0.2 64	0.3 35	0.4 22	0.2 70	0.7 70	0.6 15	1.0 00	0.3 47	0.3 92	0.3 85	0.2 16
SE 4	0.6 09	0.3 90	0.3 46	0.5 55	0.6 12	0.6 61	0.4 58	0.6 66	0.6 71	0.7 31	0.7 48	0.4 96	0.3 47	0.3 47	1.0 00	0.4 41	0.6 35	0.6 59
SE 5	0.3 10	0.3 06	0.2 44	0.4 00	0.2 13	0.4 08	0.0 42	0.3 79	0.2 33	0.2 94	0.3 43	0.3 37	0.3 92	0.3 92	0.4 41	1.0 00	0.4 74	0.3 63
SE 6	0.6 80	0.2 47	0.2 93	0.5 20	0.4 29	0.6 96	0.3 34	0.6 51	0.5 25	0.5 16	0.6 09	0.4 04	0.3 13	0.3 85	0.6 35	0.4 74	1.0 00	0.6 72
SE 7	0.6 18	0.3 47	0.2 48	0.5 51	0.5 30	0.7 63	0.2 75	0.6 56	0.6 01	0.4 90	0.7 68	0.3 71	0.2 51	0.2 16	0.6 59	0.3 63	0.6 72	1.0 00

Based on the table above, it is obtained that the greatest level of relationship is the relationship between the KLS4 indicator and KLS5, which is 0.803, indicating a very strong level of relationship. While the weakest level of relationship is between indicator SE3 and BS7.



Based on the table above, it is obtained that the largest path coefficient is on the ecological school variable with school culture, while the smallest path coefficient is on the ecological school variable with the environmental character of students.

**Table 3:** Convergent Validity Test Results

Variables	Item	Factor Loadings	AVE	Description
School Culture	BS1	0.230	0.562	Valid
	BS2	0.151		
	BS3	0.130		
	BS4	0.209		
	BS5	0.205		
	BS6	0.255		
	BS7	0.133		
Student Environmental Character	KLS1	0.278	0.747	Valid
	KLS2	0.286		
	KLS3	0.296		
	KLS4	0.297		
School of Ecology	SE1	0.204	0.528	Valid
	SE2	0.133		
	SE3	0.140		
	SE4	0.266		
	SE5	0.130		
	SE6	0.229		
	SE7	0.245		

Based on table above, it can be seen that the questionnaire in this study has a factor loading value above 0.5, it can be concluded that the questionnaire in this study meets the requirements of convergent validity and these items can be said to be valid as a measure of latent variables. Likewise, when viewed from the AVE value,

all variables in this study have an AVE value above 0.5 so that it is certain that the questionnaire in this study meets convergent validity and it can be said that overall the items built are able to accurately explain the variables.

**Table 4:** Discriminant Validity Test Results Between Variables

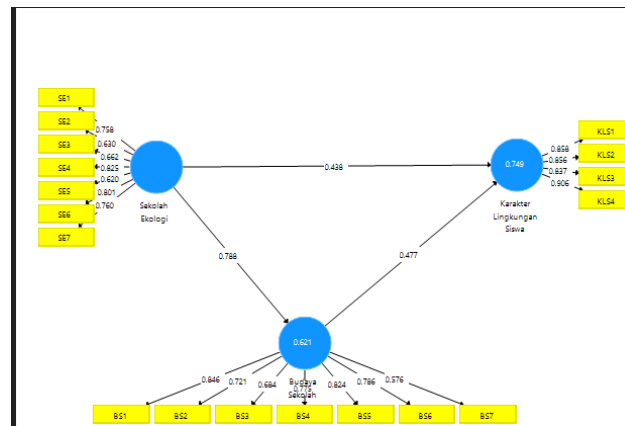
	<b>School Culture</b>	<b>Student Environmental Character</b>	<b>School of Ecology</b>
BS1	0.846	0.709	0.710
BS2	0.721	0.479	0.452
BS3	0.684	0.357	0.447
BS4	0.775	0.671	0.616
BS5	0.824	0.686	0.578
BS6	0.786	0.772	0.806
BS7	0.576	0.473	0.345
KLS1	0.656	0.858	0.705
KLS2	0.711	0.856	0.685
KLS3	0.746	0.837	0.697
KLS4	0.725	0.906	0.727
SE1	0.589	0.583	0.758
SE2	0.395	0.370	0.630
SE3	0.429	0.374	0.662
SE4	0.715	0.815	0.825
SE5	0.386	0.361	0.620
SE6	0.650	0.665	0.801
SE7	0.682	0.727	0.760

Based on Table, it shows that the cross loading on each item has a value greater than the cross loading on other latent variables, so it can be concluded that the results of this research instrument are discriminantly considered valid because all indicator values are above 0.5.

**Table 5:** CA and CR values

	<b>Cronbach's Alpha</b>	<b>Composite Reliability</b>
School Culture	0.870	0.899
Student Environmental Character	0.887	0.922
School of Ecology	0.854	0.886

From the results of table, it shows that the Cronbach's Alpha (CA) and Composite Reliability (CR) values are above 0.7 and even above 0.8, so it can be concluded that the questionnaire in this study meets the reliability criteria, which means that these indicators consistently and reliably present latent variables.



**Figure 1:** Relationship Model

**Table 6:** Relationship Model

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics (O/STDEV)</b>	<b>P Values</b>
School Culture -> Student Environmental Character	0.477	0.466	0.068	7.063	0.000
Ecological School -> School Culture	0.788	0.793	0.040	19.581	0.000
Ecological School -> Students' Environmental Character	0.438	0.453	0.067	6.574	0.000

Table shows the relationship between exogenous latent constructs and endogenous latent constructs where all relationships are declared significant at the 5% significance level, namely School Culture --> Student Environmental Character, Ecological School --> School Culture and Ecological School --> Student Environmental Character. This means that there is an influence of School Culture on Student Environmental Character, there is

an influence of Ecological Schools on School Culture and there is an influence of Ecological Schools on Student Environmental Character.

Mediation test is conducted to detect the position of variables in the model. This test was conducted through free statistical calculation software for sobel test. This test was conducted by examining the effect of character education, pro-environmental behavior, environmental character and school culture on student character through ecological school variables.

**Table 7:** Mediation Test

No.		Variables
		Ecological School on Students' Environmental Character through School Culture
1	A	0,789
2	B	1,124
3	SEa	0,11
4	Seb	0,042
5	Sobel Test statistics	6,9282
6	One-Tailed Probability	0
7	Two-Tailde Probability	0

From table, the results of the mediation test using free statistical calculation software for sobel test, it is known that the results of the influence of ecological schools on the environmental character of students through school culture with a result of 6.9282, the mediation test results above are greater than the t-table and one-tailed probability is smaller than 0.005 so it can be said that the School Culture variable is able to become a mediating variable between the influence of ecological schools on the environmental character of students in ecological schools in Purwakarta Regency.

### **3.2. Discussion**

Based on the results of the research and data analysis that has been carried out, it can be interpreted as follows:

1. The Effect of Ecological Schools (X) on School Culture (Z) in Ecological Schools in Purwakarta Regency.

School Ecology (X) has a significant influence on School Culture (Z). These results are obtained from research that has been conducted with a sig value of 0.000 where the significance level is smaller than the alpha value of 0.05 ( $0.000 \leq \alpha 0.05$ ). Thus, it can be concluded that there is a significant influence of ecological schools on School Culture in Ecological Schools in Purwakarta Regency.

2. The Effect of Ecological Schools (X) on Student Environmental Character (Y) at Ecological Schools throughout Purwakarta Regency.

Ecological School (X) has a significant influence on Student Environmental Character (Y). These results are obtained from research that has been conducted with a sig value of 0.000 where the significance level is smaller than the alpha value of 0.05 ( $0.000 \leq \alpha 0.05$ ). So thus it can be concluded that there is a significant influence on Students' Environmental Character (Y).

3. The Effect of School Culture (Z) on Student Environmental Character (Y) at Ecology School in Purwakarta Regence

School Culture (Z) has a significant influence on Student Environmental Character (Y). These results are obtained from research that has been conducted with a sig value of 0.000 where the significance level is smaller than the alpha value of 0.05 ( $0.000 \leq \alpha 0.05$ ). So thus it can be concluded that there is a significant influence of School Culture (Z) has a significant influence on Student Environmental Character (Y).

4. The Effect of Ecological Schools (X) on Students' Environmental Character (Y) in Ecological Schools throughout Purwakarta Regency through School culture (Z)

Ecological school (X) has a significant influence on Student Environmental Character (Y) through School Culture (Z). These results are obtained from research that has been conducted with a sig value of 0.000 where the significance level is smaller than the alpha value of 0.05 ( $0.000 \leq \alpha 0.05$ ). So that it can be concluded that there is a significant influence of ecological school (X) has a significant influence on Student Environmental Character (Y) through School Culture (Z).

#### 4. Conclusion

Based on the findings and discussion that have been described in the previous chapter, the researcher draws the following conclusions about this research:

1. There is an influence of Ecological School on School Culture of Elementary School Students in Purwakarta District.
2. There is an influence of ecological schools on the environmental character of elementary school students in Purwakarta district.
3. There is an influence of School Culture on the Environmental Character of Elementary School Students in Purwakarta District.
4. There is an influence of Ecological Schools on the Environmental Character of Elementary School Students in Purwakarta Regency through School Culture.

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