

Understanding the Concept and the Character of Caring for the Environment of Junior High School Students in Indonesia

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Abstract: Understanding the Concept and the Character of Caring for the Environment of Junior High School Students in Indonesia. Objectives: The purpose of this study was to determine the relationship between students' responses to the cultural values of the inner tribe, the character of students' environmental care, and student learning outcomes on environmental materials. **Methods:** This type of research is a mixed method research with an explanatory design. The sampling technique used in this study was purposive sampling with the research sample being class VIII students at SMPN 01 Muaro Jambi and SMPN 7 Muaro Jambi. **Findings:** Based on the results of the correlation test with the results of the value of sig. (2-tailed) < 0.05 concluded that there is a relationship between students' responses to the cultural values of the inner tribe, the character of caring for the environment and student learning outcomes in both schools.

Keywords: Environmental Care Character, Inner Tribe, Conservation, Natural Science

Abstrak: Memahami Konsep dan Karakter Peduli Lingkungan Siswa SMP di Indonesia. Tujuan: Tujuan penelitian ini yaitu untuk mengetahui hubungan antara respon siswa terhadap nilai budaya suku anak dalam, karakter peduli lingkungan siswa, dan hasil belajar siswa pada materi lingkungan hidup. **Metode:** Jenis penelitian ini yaitu penelitian mix method dengan desain explanatori. Teknik pengambilan sampel yang digunakan dalam penelitian ini berupa purposive sampling dengan sampel penelitiannya yaitu siswa kelas VIII di SMPN 01 Muaro Jambi dan SMPN 7 Muaro Jambi. **Temuan:** Berdasarkan hasil uji korelasi dengan hasil nilai sig.(2-tailed) < 0.05 dapat disimpulkan bahwa terdapat hubungan antara respon siswa terhadap nilai budaya suku anak dalam, karakter peduli lingkungan dan hasil belajar siswa di kedua sekolah.

Kata kunci: karakter peduli lingkungan, suku anak dalam, konservasi, ilmu pengetahuan alam.

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■ INTRODUCTION

Science learning is a familiar learning at all levels of education. Science learning itself includes abstract learning and is considered difficult to learn (Anikarnisia & Wilujeng, 2020; Kahar, 2017; Ta'tan et al., 2018). Science or science learning is learning that is theoretical in nature and discusses problems in real life and is often considered difficult (Ernawati et al., 2021; Kamid et al., 2021; Nawahdani et al., 2021; Zurweni et al., 2021). Through science learning, students can develop their potential which can then apply knowledge in everyday life, and also improve scientific literacy (Handayani & Jumadi, 2021; Narut et al., 2019; Pratiwi et al., 2019). The material that is familiar in science learning is environmental material.

Environmental materials are studied by students at the junior high school level. One of the materials at the junior high school level which includes science learning is the environment, which is immediately important to apply in life (Baihaqi et al., 2015; Setyobudi & Marsudi, 2018; Siddiq et al., 2020). Students' understanding related to the environment can be improved by problem-based learning related to issues that exist in the life around them (Apriyanto et al., 2017; Jailani et al., 2018; Sya'ban, 2018). In the context of the importance of students' awareness of the importance of environmental sustainability for the future, it is necessary to hold learning about the environment, coupled with motivation for the importance of having a caring character for the environment. (Ahmadi et al., 2018; Fitriati et al., 2019; Sutrisno et al., 2020). The character of caring for the environment is important to be instilled in students from an early age.

The character of caring for the environment is a feeling of sympathy and a desire to keep the surrounding environment beautiful. The character of caring for the environment needs to be instilled and accustomed to and applied from an early age

through habituation (Efendi et al., 2020; Hasnidar, 2019; Wibowo, 2020). Through the learning process, the character of caring for the environment can be properly implemented at every level of education (Eva et al., 2020; Nuzulia et al., 2019; Wanabuliandari & Ardianti, 2018). Caring for the environment is an action to always try to maintain and prevent damage to the environment and repair the damage that occurs (Ismail, 2021; Mustika & Sahudra, 2018; Wardani, 2020). Efforts that can be made so that the environment is well maintained are through environmental conservation activities.

Conservation in environmental matters has the meaning of an effort made to utilize natural resources wisely, meaning that the utilization is carried out while keeping the environment in good condition. Environmental conservation is the management of a place or the use of natural resources with good and correct management so that nature remains sustainable (Effendi, 2019; Permatasari et al., 2021; Tresnawati, 2018). Environmental conservation is important to do because it will benefit many people (Bastomi & Naufal, 2021; Halmahera et al., 2019; Nurhilmiah et al., 2021). Awareness of environmental conservation is an inseparable part of the management of life resources regarding environmental balance (Kasim et al., 2018; lanini & Syafiuddin, 2020; Utari et al., 2021). Thus, environmental conservation activities are indeed important to be realized so that the environment is maintained in the future.

Based on the research conducted by (Longhinotti-Felippe & Kuhnen, 2012), the results showed that there was a positive and statistically significant correlation between site attachment and environmental conservation status. so that this research was conducted as an update of previous research, namely measuring the relationship between student responses and student learning outcomes in natural science

subjects with environmental materials with environmental care characters for junior high school students.

A similar study on the character of caring for the environment was carried out by Purwanti (2017) where in her research it was stated that the character of caring for the environment is an effort made to prevent environmental damage and repair existing damage, where this can be implemented in the learning process. According to Siskayanti & Chastanti (2022) stated that the character of caring for the environment in students is still relatively low, so it is necessary to be taught about the importance of caring for the environment. Narut et al. (2019) states that caring for the environment is not only habituated in the family environment, but also must be cultivated in the education system. By looking at the importance of the character of caring for the environment in students, the researchers conducted a study that discussed the relationship between students' responses to the cultural values of the children's ethnic group with the character of caring for the environment and student learning outcomes.

The purpose of this research is to determine the relationship between students' responses to the cultural values of the children's tribe, the character of students' environmental care, and student learning outcomes on environmental materials. From these objectives, the research questions are: How is the relationship between students' responses to the cultural values of the children's tribe, the character of students' environmental care, and student learning outcomes on environmental materials?

■ METHODS

This type of research is a mix method research with an explanatory design. Mix method research consists of quantitative research and qualitative research or commonly called mixed

research (Amin et al., 2021). The population in this study were students in junior high school in Jambi sub-district outside the city. While the research sample is class VIII students at SMPN 01 Muaro Jambi and SMPN 7 Muaro Jambi. The sampling technique used in this study was purposive sampling (Amin et al., 2021; Budiarti et al., 2021; Kamid et al., 2021). The purposive sampling technique is a data collection technique by determining the criteria first as a consideration in selecting the sample to be used in the study (Kamid et al., 2021). The criteria that must be met by the research sample are class VIII junior high school students in the Jambi sub-district outside the city and the teacher who is teaching these students.

The research instrument consisted of a questionnaire on student responses to the cultural values of the inner tribe, a character questionnaire on environmental care and multiple choice question sheets with environmental material. The question sheet consists of 20 valid questions with a cronbach alpha of 0.79. The purpose of making a multiple-choice questionnaire instrument is to find out students' understanding of the concept of environmental material in science subjects at the junior high school level. The response questionnaire and the environmental care character questionnaire in this study were made by the researcher himself, then validated by the validator and declared valid. The response questionnaire consisted of 18 statements and the character questionnaire consisted of 30 statements. The researcher used a 4-point Likert scale, namely 1 (very not good), 2 (not good), 3 (good), and 4 (very good). The focus of this research is on students' responses to the cultural values of the children's tribe in the indicators of beautifying classes and schools with plants and on indicators of participating in maintaining environmental cleanliness. As well as the focus of environmental care character on indicators of

Table 1. Grid of students' response instruments to the cultural values of children's ethnic groups and the character of caring for the environment

Variable	Indicator	Statement Item Number	Number of statements
Student response	Beautify classrooms and schools with plants	1,2,3,4,5	12
	Participate in keeping the environment clean	6,7,8,9,10,11,12	
environmental care character	Have a sense of gratitude and awareness of preserving the environment	1,2,3,4,5,6,7	15
	Efforts to repair the natural damage that has occurred	8,9,10,11,12,13,14,15	

having gratitude and awareness of preserving the environment, and on indicators of efforts to repair natural damage that has occurred. In detail, the research instrument grid is listed in the following table:

From table 1 it can be seen that in the student response variables there are two indicators, namely indicators of beautifying classes and schools with plants and indicators of participating in maintaining environmental

cleanliness. As for the environmental care character variable, there are two indicators, namely indicators of having gratitude and awareness of preserving the environment and indicators of efforts to repair natural damage that has occurred.

The categories for the instrument of student responses to the cultural values of the children in the tribe and the character of caring for the environment are as follows:

Table 2. The categories of student responses to the cultural values of the children's tribe and the character of caring for the environment

Category	Student response		environmental care character	
	Beautify classrooms and schools with plants	Participate in keeping the environment clean	Have a sense of gratitude and awareness of preserving the environment	Efforts to repair the natural damage that has occurred
Very Not Good	5.00-8.75	7.00-12.25	7.00-12.25	8.0-14.0
Not good	8.76-12.50	12.26-17.50	12.26-17.50	15.0-20.0
Good	12.51-16.25	12.51-22.75	12.51-22.75	21.0-26.0
Very good	16.26-20.00	22.76-28.00	22.76-28.00	27.0-32.0

While the category of student learning outcomes in science subjects with environmental material, namely the very not good category is in the 0.0-5.0 interval, the not good category is in the 6.0-10.0 interval, the good category is in the 11.0-15.0 interval, and the very good category is in the at intervals of 16.0-20.0.

Data analysis in the form of quantitative data analysis and qualitative data. Quantitative data analysis is useful for processing numerical data from response questionnaires and student learning outcomes sheets, while qualitative data analysis is useful for processing data from interviews

conducted with teachers. Quantitative data analysis was carried out with the help of SPSS 26 statistical software to search for descriptive statistics and inferential statistics. Inferential statistics consist of assumption testing and hypothesis testing. The assumption test in this study is the normality test and linearity test, while the assumption test is the correlation test. For qualitative data analysis, it is done by drawing conclusions.

The researcher first prepared a questionnaire and also a multiple choice question sheet. Then submit a letter of request for

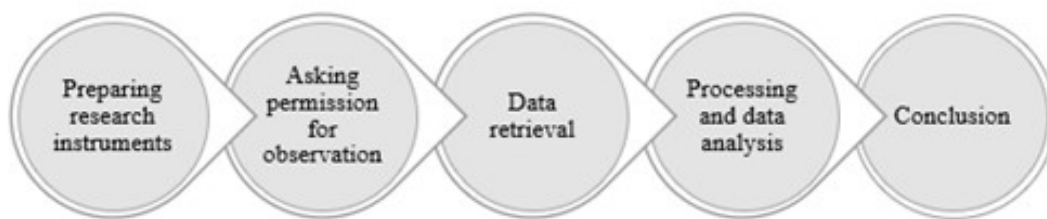


Figure 1. Research procedure

■ RESULT AND DISCUSSIONS

Descriptive statistics

The results of the descriptive statistical test of student responses to the cultural values of the

children in the indicators of beautifying classes and schools with plants can be seen in the following table:

The results of the descriptive statistical test

Table 3. Description of students' responses to the cultural values of children's tribes in the indicators of beautifying classrooms and schools with plants

Student response	Interval	Category	F	%	Mean	Median	Min	Max
SMPN 01 Muaro Jambi	5.00-8.75	Very Not Good	3	5.0				
	8.76-12.50	Not good	12	20.0	13.78	13.50	7.00	20.00
	12.51-16.25	Good	34	56.7				
	16.26-20.00	Very good	11	18.3				
SMPN 7 Muaro Jambi	5.00-8.75	Very Not Good	1	1.7				
	8.76-12.50	Not good	12	20.0	14.30	14.00	8.00	20.00
	12.51-16.25	Good	33	55.0				
	16.26-20.00	Very good	14	23.3				

of student responses to the cultural values of the children's tribe in the indicators of participating in maintaining environmental cleanliness can be seen in the following table:

Table 4. Description of students' responses to the cultural values of the children's tribe in the indicators of participating in maintaining environmental cleanliness

Student response	Interval	Category	F	%	Mean	Median	Min	Max
SMPN 01 Muaro Jambi	7.00-12.25	Very Not Good	1	1.7				
	12.26-17.50	Not good	15	25.0	18.75	19.00	11.00	27.00
	12.51-22.75	Good	37	61.7				
	22.76-28.00	Very good	7	11.7				
SMPN 7 Muaro Jambi	7.00-12.25	Very Not Good	4	6.7				
	12.26-17.50	Not good	17	28.3	18.30	19.00	7.00	25.00
	12.51-22.75	Good	35	58.3				
	22.76-28.00	Very good	4	6.7				

The results of the descriptive statistical test results of students' responses to the cultural values of the inner children on the indicators of beautifying classes and schools with plants at SMPN 01 Muaro Jambi were dominated by the good category with a percentage of 56.7% while the students' responses to the cultural values of the inner tribes on the indicators of beautifying classes and schools with Plants at SMPN 7 Muaro Jambi were dominated by the good category with a percentage of 55.0%. Students' responses to the cultural values of the children's tribe in the indicator of participating in maintaining

environmental cleanliness at SMPN 01 Muaro Jambi were dominated by the good category with a percentage of 61.7% while the students' responses to the cultural values of the tribal children in the indicators of participating in maintaining environmental cleanliness at SMPN 7 Muaro Jambi were dominated by with a good category with a percentage of 58.3%.

The results of the descriptive statistical test of the environmental care character of students on the indicators of having gratitude and awareness of preserving the environment can be seen in the following table:

Table 5. Description of the environmental care character of students on the indicators of having gratitude and awareness of preserving the environment

Student response	Interval	Category	F	%	Mean	Median	Min	Max
SMPN 01 Muaro Jambi	7.00-12.25	Very Not Good	4	6.7				
	12.26-17.50	Not good	14	23.3	18.56	19.00	12.00	26.00
	12.51-22.75	Good	37	61.7				
	22.76-28.00	Very good	5	8.3				

SMPN 7 Muaro Jambi	7.00-12.25	Very Not Good	5	8.3					
	12.26-17.50	Not good	14	23.3	18.86	19.00	11.00	26.00	
	12.51-22.75	Good	31	51.7					
	22.76-28.00	Very good	10	16.7					

The results of the descriptive statistical test of the environmental care character of students on the indicators of efforts to repair natural damage that have occurred can be seen in the following table:

The results of the descriptive statistical test of the environmental care character of students on the indicator of having gratitude and awareness of preserving the environment at SMPN 01 Muaro Jambi are dominated by the good

Table 6. Description of students' environmental care character on indicators of efforts to repair natural damage that has occurred

Student response	Interval	Category	F	%	Mean	Median	Min	Max
SMPN 01 Muaro Jambi	8.0-14.0	Very Not Good	5	8.3				
	15.0-20.0	Not good	19	31.7	20.93	21.00	8.00	29.00
	21.0-26.0	Good	32	53.3				
	27.0-32.0	Very good	4	6.7				
SMPN 7 Muaro Jambi	8.0-14.0	Very Not Good	0	0.0				
	15.0-20.0	Not good	13	21.7	22.66	23.00	15.00	30.00
	21.0-26.0	Good	42	70.0				
	27.0-32.0	Very good	5	8.3				

category with a percentage of 61.7% while the environmental care character of students on the indicator has gratitude and awareness of preserving the environment at SMPN 7 Muaro Jambi was dominated by the good category with a percentage of 51.7%. the environmental care character of students in the indicators of efforts to repair natural damage that has occurred at SMPN 01 Muaro Jambi is dominated by the good category with a percentage of 53.3% while the environmental care character of students on the indicators of efforts to repair natural damage that has occurred at SMPN 7 Muaro Jambi is dominated by the good category with percentage 70.0%.

The results of descriptive statistical tests of student learning outcomes in science subjects with environmental materials can be seen in the following table:

Based on the test results, student learning outcomes in science subjects with environmental material at SMPN 01 Muaro Jambi are dominated by the very good category with a percentage of 41.7% while student learning outcomes in science subjects with environmental materials at SMPN 7 Muaro Jambi are dominated by the very category good with a percentage of 40.0%. The difference between the two schools is not too far in terms of student learning outcomes, but in both schools the

Table 7. Description of student learning outcomes in science subjects with environmental material

Student response	Interval	Category	F	%	Mean	Median	Min	Max
SMPN 01 Muaro Jambi	0.0-5.0	Very Not Good	0	0.0				
	6.0-10.0	Not good	12	20.0	14.28	14.50	7.00	20.00
	11.0-15.0	Good	23	38.3				
	16.0-20.0	Very good	25	41.7				
SMPN 7 Muaro Jambi	0.0-5.0	Very Not Good	0	0.0				
	6.0-10.0	Not good	13	21.7	14.26	14.50	7.00	20.00
	11.0-15.0	Good	23	38.3				
	16.0-20.0	Very good	24	40.0				

percentage is very good, which means that students understand a lot about science lessons on environmental materials.

Test assumptions

Next is the assumption test where the tests used are normality tests and linearity tests. The data can be said to be normal if the significance value is greater than 0.05, while the data can be said to be linear if the significance value is less than 0.05. The results of the normality test of student response data to the cultural values of the inner child, the character of students' environmental care, and student learning outcomes in science subjects with environmental materials obtained a normality test with the Kolmogorov-Smirnov test, the significance value is greater than 0.05, it can be concluded that the data normally distributed. The results of the linearity test of student responses, students' environmental care character and student learning outcomes obtained linearity test results with a significance value smaller than 0.05 which means there is a significant linear relationship between student responses, students' environmental care character and student learning outcomes on science subjects. environment in both schools.

Hypothesis test

After testing the assumptions or prerequisite tests, the next step is to test the hypothesis. The test in question is the correlation test which serves to determine the relationship between students' responses to the cultural values of the inner tribe, the character of students' environmental care and student learning outcomes in science subjects with environmental materials. The results of hypothesis testing in detail are presented in the following table:

Correlation test

The results of the correlation test for student responses, environmental care character, and student learning outcomes for science subjects in the environment are as follows:

The results of the correlation test of student responses, environmental care character, and student learning outcomes on science subjects in the environment with the result of a sig. (2-tailed) value of less than 0.05, it can be concluded that there is a relationship between student responses to the cultural values of children's ethnic groups in , environmental care character and student learning outcomes in both schools. The close relationship between the two is shown by the Pearson correlation value, which is 0.638 at

Table 8. Description of student response correlation test, environmental care character and student learning outcomes

School	Variable	Sig.(2-tailed)	Pearson Correlation
SMPN 01 Muaro Jambi	Student response	0.021	0.638
	Environmental care character		
	Learning outcomes		
SMPN 7 Muaro Jambi	Student response	0.024	0.609
	Environmental care character		
	Learning outcomes		

SMPN 01 Muaro Jambi and 0.609 at SMPN 7 Muaro Jambi. This means that there is a strong relationship between student responses to the cultural values of the children's tribe, the environmental care character of students, and student learning outcomes in science subjects with environmental materials. A good student response will relate to the character of caring for the environment and good learning outcomes as well.

Interview result

Based on interviews conducted with class VIII students at SMPN 01 Muaro Jambi and SMPN 7 Muaro Jambi, it was found that on average students in the 2 schools had disposed of their garbage in its place, and this was one of their ways to protect the surrounding environment. In addition, the students at the school have participated in the arrangement of plants in the school environment to beautify the school. Students in both schools have done as much as possible to maintain the cleanliness and beauty of the school environment so that the teaching and learning process is carried out comfortably. With a sense of comfort when students study, students will be more focused in participating in learning activities, especially science subjects that require high concentration power. The impact

when students are more focused on learning that students will find it easier to understand the material presented and have an impact on increasing student learning outcomes.

A similar study on the character of caring for the environment was carried out by Purwanti (2017) where in her research it was stated that the character of caring for the environment is an effort made to prevent environmental damage and repair existing damage, where this can be implemented in the learning process. According to Siskayanti & Chastanti (2022) stated that the character of caring for the environment in students is still relatively low, so it is necessary to be taught about the importance of caring for the environment. Narut et al. (2019) states that caring for the environment is not only habituated in the family environment, but also must be cultivated in the education system. The character of caring for the environment should indeed be applied in life, such as maintaining and utilizing the surrounding nature without causing damage or commonly referred to as conservation activities.

The novelty of this research as a differentiator with previous research, namely in this study discusses the relationship of three variables, namely student responses to the cultural values of the children in the tribe, the character

of caring for the environment, and student learning outcomes in science subjects with environmental materials. This research is also inseparable from shortcomings, where this study only examines the relationship and the research is only viewed from the student's point of view. The researcher hopes that there will be similar research to measure the influence between the variables studied and also the research in terms of the teacher's point of view.

■ CONCLUSIONS

Based on the correlation test that has been carried out, it can be concluded that there is a relationship between students' responses to the cultural values of the inner tribe, the character of caring for the environment and student learning outcomes in both schools. The close relationship between the two is indicated by the Pearson correlation value. This research is also inseparable from shortcomings, where this study only examines the relationship and the research is only viewed from the student's point of view. The researcher hopes that there will be similar research to measure the influence between the variables studied and also the research in terms of the teacher's point of view.

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