



ENVIRONMENTAL CHARACTER OF PROSPECTIVE TEACHERS IN RIAU PROVINCE

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ABSTRACT

This study aims to describe the differences in the character of caring for the environment between student-teacher candidates who have never taken Environmental Education Courses and have never taken them. The population in this study were prospective teacher students at the Faculty of Teaching and Education, University of Riau, totaling 5,013. The research sample used was 640 people spread over 16 study programs. Data collection techniques used were interviews, questionnaires, documentation, and observation. Then, the data were analyzed using different tests and frequency distributions. The results showed that: (1) the character of caring for the environment for prospective teacher students who had not taken Environmental Education Courses was in the medium category; (2) the character of caring for the environment of prospective students who have taken Environmental Education Courses is in the moderate category. The study concludes that there is no difference in the character of caring for the environment for prospective teacher students who have not taken and have taken Environmental Education Courses.

Keywords: *character, environmental care*

KARAKTER PEDULI LINGKUNGAN CALON GURU DI PROVINSI RIAU

ABSTRAK

Penelitian ini bertujuan untuk mendeskripsikan perbedaan karakter peduli lingkungan antara mahasiswa calon guru yang belum dan pernah mengambil Mata Kuliah Pendidikan Lingkungan Hidup. Populasi dalam penelitian ini adalah mahasiswa calon guru di Fakultas Keguruan dan Ilmu Pendidikan Universitas Riau yang berjumlah 5.013. Sampel penelitian yang digunakan sebanyak 640 orang yang tersebar pada 16 program studi. Teknik pengumpulan data yang digunakan adalah teknik wawancara, angket, dokumentasi dan observasi. Kemudian, data dianalisis dengan menggunakan uji perbedaan dan distribusi frekuensi. Hasil penelitian menunjukkan bahwa: (1) karakter peduli lingkungan mahasiswa calon guru yang belum mengambil Mata Kuliah Pendidikan Lingkungan berada pada kategori sedang; (2) karakter peduli lingkungan mahasiswa calon yang telah mengambil Mata Kuliah Pendidikan Lingkungan berada pada kategori sedang. Simpulan penelitian tidak terdapat perbedaan karakter peduli lingkungan mahasiswa calon guru yang belum dan telah mengambil Mata Kuliah Pendidikan Lingkungan.

Kata Kunci: *karakter, peduli lingkungan*

Submitted	Accepted	Published
18 January 2023	30 March 2023	31 March 2023

Citation	:	Erlinda, S. (2023). Environmental Character Of Prospective Teachers In Riau Province. <i>Jurnal PAJAR (Pendidikan dan Pengajaran)</i> , 7(2), 539-547. DOI: http://dx.doi.org/10.33578/pjr.v7i2.9388 .
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INTRODUCTION

Education is a conscious and systematic effort to develop the potential of students (Aron, 2022; Kanji et al., 2020; Yusuf & Saputra, 2021). Education is also an effort of the community and the nation in preparing its young generation for a better future life for the people and nation. Sustainability is marked by cultural inheritance and character owned by the people and nation (Nocca, 2017). Therefore education is the process of cultural inheritance and national character for the younger generation and also the process of

developing the nation's culture and character to improve the quality of life of the people and nation in the future (Listyaningsih et al., 2021; Nismawati et al., 2021; Sari, 2019; Trisiana, 2020). In cultural education and national character, students actively develop their potential and carry out the internalization and appreciation of values into their personalities in socializing in society, developing a more prosperous community life, and developing a dignified life for the nation.

Character is a personality formed from the internationalization of various virtues believed and used as the basis for perspective, thinking, behaving, and acting (Istiharoh & Indartono, 2019; Lickona, 1996). Virtue consists of several values, morals, and norms, such as honesty, courage to act, trustworthiness, and respect for others. The interaction of a person with other people forms the nation's and nation's character. The form of character developed in character education in Indonesia is 18 characters (Kementrian Pendidikan Nasional, 2011; Muchtar & Suryani, 2019; Putry, 2019). One of the characteristics that will be explored in this study is the character of caring for the environment. Caring for the environment is an attitude and action that always tries to prevent damage to the surrounding natural environment and develops efforts to repair the damage to nature that has already occurred.

Ecological education is not only for children but must be given to all people and applied throughout life, given the need to remind continuously of the ecological meaning of humans (Fang et al., 2023; Kahyaoğlu et al., 2021). So, to be a dignified human is to be an ecological human. Dignity because ecological humans have a far-sighted future towards the fate of the next generation, who also have the right to get good nature, which can make them live a natural life like the previous generation. Around him. Dignity is also because ecological humans are human beings who respect nature, just like themselves, because they are natural.

Environmental education focuses on developing human awareness and understanding of the environment and ways to maintain the environmental sustainability. Environmental education aims to increase public awareness and knowledge of environmental issues and develop the skills to address environmental problems (Scroll & For, 2020). Environmental education also helps develop environmentally responsible attitudes and behaviors, such as reducing energy use, reducing waste production, and choosing environmentally friendly products. Environmental education also helps promote social awareness and environmental concerns (Istiqomah et al., 2020).

Environmental education can be carried out in various ways, such as through formal education curricula in schools and colleges, training programs and community awareness, campaigns, and community-based activities (Fang et al., 2023; Gautami et al., 2022; Scroll & For, 2020). Through environmental education, it is hoped that people can care more about the environment and take concrete actions to maintain environmental sustainability for future generations. In this regard, the Teaching and Education Faculty of the University Riau has determined the Environmental Education Course as a compulsory subject. As a faculty that produces prospective teachers, environmental education is very beneficial for prospective teacher students to be taught again to students after they become teachers.

Based on the pre-survey, there are still many student teacher candidates who do not care about the environment, such as littering (in the classroom), such as drink bottles and snack packs, and many who are not energy efficient such as leaving the lights on all day long, not turning off the overflow water, not turning off the fan even though the room is no longer in use. Based on this phenomenon, researchers are interested in researching the character of caring for the environment.

Based on the background explanation that has been mentioned, the formulation of the problem in this study is how are the differences in the character of caring for the environment between prospective teacher students who have not taken and have taken Environmental Education Courses. Hence, this study aims to describe the differences in the character of caring for the environment between student teacher candidates who have not and have never taken Environmental Education Courses.

REASERCH METHOD

The research approach used is a quantitative research using survey methods. The population in this study were prospective teacher students at the Faculty of Teaching and Education, University of Riau, totaling 5,013. The research sample used was 640 people spread over 16 study programs. Data collection techniques

used were interviews, questionnaires, documentation, and observation. The environmental care indicators used consist of (a) attitudes and actions that always try to prevent environmental damage and (b) developing efforts to repair the natural damage that has already occurred. Then, the data were analyzed using different test and frequency distributions.

RESULTS AND DISCUSSION

1. Result

a. Analysis of the Character of Environmental Care for Students who have not taken Environmental Education Course

Based on the questionnaire and interview list, the character caring about the student environment can be seen before following the Environmental Education course in Table 1 below.

Table 1. The Character of Environmental Care for Students who have not taken Environmental Education Course

		Alternative Answers					
No	Indicator	Often	%	Some times	%	Never	%
Attitudes and actions that always try to prevent damage to the environment							
1	Throw garbage in its place	234	73	86	27	0	0
2	Turn off power tools when not in use	249	78	68	21	3	1
3	Use enough water	225	70	92	29	3	1
4	Turn off the faucet (when water is abundant)	297	93	23	7	0	0
5	Use enough paper	167	52	149	47	4	1
6	Separating non-organic organic waste	63	20	196	61	61	19
7	Don't use perfume spray	79	25	144	45	97	30
8	Don't scribble on the table	178	56	128	40	14	4
9	Don't scribble on the chair	249	78	68	21	3	1
10	Don't scribble on the wall	251	78	64	20	5	2
11	Use items that can be reused	239	73	52	16	29	9
12	Use enough plastic	159	50	155	48	6	2
13	Use detergent or soap to taste	208	65	101	32	11	3
14	Joining together in cleaning up the environment	124	39	182	32	14	4
15	Reduce buying or consuming packaged foods	90	28	213	67	17	5
16	Reduce buying or consuming bottled drinks	79	24	229	72	12	4
Developing efforts to repair the natural damage that has already occurred							
17	Join processing garbage	22	7	188	59	110	34
18	Participate in planting trees	34	11	199	62	87	27
19	Implementing the 4R principle, namely reduce (reduce usage), reuse (reuse), recycle, and replant planting or stockpiling waste	40	13	225	70	55	17
Amount		2.987	933	2.562	776	531	145
Averege		157	50	134.8	42	27.9	8

Based on Table 1, it can be concluded that the character of environmental care for students who have not taken the Environmental Education course is the "medium" category. The highest percentage is 93% answered often turn off the faucet (when the water is abundant). The majority do this in their homes, unlike on campus. Based on the interview results, respondents save electricity and detergent because it is expensive,

not because they realize that the more detergent is used, the more waste. Respondents who economically use plastic have realized plastic waste is difficult to destroy. As well as using paper, the level of consciousness is also not maximized. However, 25% just realized that spray perfume damages ozone. Disposing of garbage in its place, the majority said often (73%), but did

not separate between organic and non-organic waste.

Regarding the use of items that can be reused, respondents answered often or yes by 73%. They do this because buying refills is cheaper, such as refilled water, perfume bottles, and bottles where oil. Indicators of cooperation only amount to 39% who often do it. Not crossing the chair or wall (78%), the respondents did not do it because it made the viewer uncomfortable. After all, it was dirty. Unlike the table, 40% of respondents answered that sometimes they crossed the table because it was easier to cross out while filling boredom. In reducing the consumption of food and beverage packaging, the majority sometimes do because they know they contain lots of chemicals and are better off eating natural foods.

Development efforts to improve natural damage that has occurred have not been maximized, and sometimes do it, such as taking part in processing waste and planting trees. The application of 4R is also sometimes done. So it

can be concluded that the characters care about the environment of students who have not taken the subject of environmental care with the category "medium."

b. Analysis of the Character of Environmental Care for Students Who Have Taken Subjects in Environmental Education

Students who have taken Environmental Education courses are expected to be better cared for by their environment than before. It is under this course's second (Course Learning Outcomes) CLO, namely the ability to apply basic concepts, principles, and procedures in environmental knowledge and its application in learning. However, based on the results of a study of 320 students who had followed this course, it turned out that the character of environmental care was the same as students who had not taken this course. For details, we can see the following Table 2.

Table 2. The character of Environmental Care for Students Who Have Taken Subjects in Environmental Education

No		Indicator	Alternative Answers					
			Often	%	Some times	%	Never	%
Attitudes and actions that always try to prevent damage to the environment								
1	Throw garbage in its place	198	62	118	37	4	1	
2	Turn off power tools when not in use	215	67	105	33	0	0	
3	Use enough water	205	64	94	29	21	7	
4	Turn off the faucet (when water is abundant)	296	93	24	7	0	0	
5	Use enough paper	163	51	154	48	3	1	
6	Separating non-organic organic waste	31	10	223	70	66	20	
7	Don't use perfume spray	214	67	56	18	50	15	
8	Don't scribble on the table	177	55	134	42	9	3	
9	Don't scribble on the chair	245	76	72	23	3	1	
10	Don't scribble on the wall	267	84	50	16	3	1	
11	Use items that can be reused	95	29	197	62	28	9	
12	Use enough plastic	31	10	284	89	5	1	
13	Use detergent or soap to taste	207	65	108	34	5	1	
14	Joining together in cleaning up the environment	93	30	222	69	5	1	
15	Reduce buying or consuming packaged foods	49	15	254	80	17	5	
16	Reduce buying or consuming bottled drinks	52	16	247	77	21	7	
Developing efforts to repair the natural damage that has already occurred								
17	Join processing garbage	29	9	147	46	144	45	
18	Participate in planting trees	43	13	201	63	76	24	
19	Implementing the 4R principle, namely reduce (reduce usage), reuse (reuse), recycle, and replant	43	13	236	74	41	13	

No	Indicator	Alternative Answers					
		Often	%	Some times	%	Never	%
	planting or stockpiling waste						
	Amount	2.653	829	2.926	917	501	155
	Average	140	44	154	48	26	8

Table 2 shows that the character cares about the environment of students who have taken Environmental Education courses in the “medium” category. In principle, the answers from the interview are almost the same. For example, the highest percentage indicator that answers yes or often is 93%, the same as the respondent before taking this course.

Turning off electrical appliances when not in use and not using spray perfume are equally 67% often done. It is done to save electricity because it is expensive. Use enough water (64%) and turn off the water faucet when it is abundant, some realize for posterity and partly because they live in remote areas that are difficult to get clean water. So they are very aware of the importance of clean water because it must be economical. Some of them have realized that spray perfume can damage the ozone.

While throwing garbage in its place, 62% of the respondents have often done it. When there is no trash can, they keep trash in their bags. Female students mostly do this. They rarely cross the wall because it is far from the seat and more often cross the table because it is closer. About 51% of paper use is quite often they do.

The majority of things with “sometimes” answers are (1) Using enough plastic (89%), they want to be easy; (2) Reducing the purchase or consumption of packaged food (80%), this is often they do because it is more practical because many boarding school children; (3) Separating organic and non-organic waste (70%), they sometimes do this because there are no separate bins; (4) Reducing and buying packaged drinks (70%); (5) Using items that can be reused (62%),

there are still many who do not want to bother refilling such as drinking water, dishwashing soap, perfume containers and so on; (6) Participating in cooperation in cleaning up the environment (60%), sometimes because now the community rarely has mutual assistance and there are already cleaning staff.

To develop efforts to repair natural damage that occurs with the majority of “sometimes,” such as applying the 4R principle (74%), much is done when the high school makes crafts such as flowers from Aqua Glass, bags of plastic wrap cooking oil, and others. While participating in planting trees, 63% answered that they sometimes planted trees when there was a *dharma bhakti* activity for students or when they were in high school first. Including also processing trash. The majority did it in high school and took Environmental Education courses.

c. Differences in the Character of Environmental Care Students of FKIP University who have not and have taken Environmental Care Subjects by using t-test.

For differences in the character of caring for the environment between students who have not attended and who have attended Environmental Education courses, the t-test formula is used. The principle of testing this test is to see the difference in the variation of the two data groups so that before testing, it must first be known whether the variance is equal (equal variance) or different variants (unequal variance).

Table 3. Frequency Distribution of Research Sample Groups

Environmental education		N	Mean	Std. Deviation	Std. Error Mean
character caring for the environment	has not taken environmental education courses	320	45.03	3.565	.199
	has taken environmental education courses	320	44.78	3.543	.198

Table 3 shows that the number of respondents in the two study sample groups (those who have not and have already studied Environmental Education) amounts to 320 people. Students who have not taken Environmental Education courses have an average score of 45.03

Environmental Care Characters, slightly higher than those of students who have studied Environmental Education, which is 44.78. Once it is known that both samples have the same variant, then we do the following difference test (Table 4).

Table 4. Different test of Character of Environmental Concern with Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Character caring for the environment	Equal variances assumed	.249	.618	.890	638	.374	.250	.281	-.302	.802
	Equal variances not assumed			.890	637.975	.374	.250	.281	-.302	.802

Table 3 results of analysis of variance (F test) shows that students who have not taken Environmental Education courses and those who have taken have the same variance (sig 0.618 > 0.05 or F value 0.249 < from F-table 1.97) with the significance of 5%. Then Table 4 shows the results of the different test analyses (t-test) with the same variant. The t count value is 0.890 < t table is 1.960 or with sig. of 0.374 > 0.05 (given a tolerance of 5%), indicating no difference in the character of caring for the environment between students who have and have not taken Environmental Education courses.

2. Discussion

The study's results and findings show that the environmental care character of prospective teacher students has no difference. In statistical tests, student teacher candidates, both those who have not and who have taken Environmental Education courses, show that they have the same environmental care character, namely in the moderate category. The character of caring for the environment of prospective teachers is obtained from data on indicators of attitudes and actions that always try to prevent environmental damage and indicators of developing efforts to repair natural damage that has occurred.

Several attitudes and actions that can be taken to prevent environmental damage include: (a) reducing the use of materials that are not environmentally friendly, such as fossil fuels, hazardous chemicals, or plastic materials that are difficult to decompose; (b) conserve water and energy, such as turning off lights and electronic equipment when not in use, or using public transportation or cycling to reduce air pollution; (c) segregating waste and recycling, so that the waste produced can be properly managed and reduce the amount of waste dumped into the environment; (d) planting trees and preserving the natural environment, such as avoiding illegal land clearing and destroying forests; (e) using environmentally friendly products, such as organic products or products that are easily decomposed; (f) convey information and educate others about the importance of preserving the environment; (g) donating time and energy to participate in social activities that focus on the environment, such as environmental cleaning activities, awareness campaigns, or greening activities (Mengist et al., 2020; Susiloningtyas, 2017; Widodo et al., 2019). Taking the above attitudes and actions can help prevent environmental damage and maintain environmental sustainability for future generations.

Then, efforts to repair natural damage that has occurred include (a) ecosystem restoration: ecosystem restoration, such as returning forests that have been cut down or replanting land that has been damaged, can help restore a degraded environment; (b) remediation: remediation is an effort to clean up a location contaminated by hazardous waste or chemicals. Remediation can be done through proper waste removal or using technologies such as bioremediation; (c) reclamation: reclamation is an effort to restore degraded land to its original form. For example, planting trees or planting other crops to improve soil quality; (d) rehabilitation is an effort to help communities directly affected by natural damage. These efforts include rebuilding infrastructure damaged by natural disasters and providing assistance to communities to restore their physical and mental conditions; and (e) conservation of endangered species: Efforts to conserve

endangered species can help restore populations of animals and plants that have been threatened due to various factors such as loss of habitat and poaching (Muñoz et al., 2022; Nagata et al., 2022; Sakurai et al., 2018). Various parties, such as the government, non-governmental organizations, companies and the community, can carry out efforts to repair natural damage. In developing efforts to repair natural damage, it needs to be done in a planned, measurable, and sustainable way and by involving all related and affected parties, one of which is through the Environmental Education Course.

CONCLUSIONS AND RECOMMENDATION

Based on the research findings, it can be concluded that there are no differences in the environmental care character of prospective teacher students who have not and have taken Environmental Education Courses.

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