



Concern Environment Students to Problems Rubbish Through Application Field Trip Method

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Abstract. Learning about environmental problems, especially waste problems, must also be carried out with appropriate and oriented methods that can change attitudes and behavior that care about the environment. Therefore, this research uses descriptive quantitative analysis to describe students' environmental awareness of waste problems by applying the Field Trip method to environmental education courses. The independent variable in this study is applying the Field Trip method, while the dependent variable is describing students' environmental concern for waste problems. The population in this study were 50 students of the Department of Elementary School Teacher Education at Universitas Negeri Makassar who were fully involved in environmental education courses. At the same time, the sample was 15 respondents. Research data was obtained by using a questionnaire. Data analysis techniques are descriptive statistical analysis and inferential statistical analysis. Based on the results of inferential statistical analysis, $p = 0.130 > 0.05$. It can be concluded that the description of students' environmental concern for waste problems through applying the Field Trip method to environmental education courses cannot increase environmental awareness.

Keywords: Concern Environment · Education Environment Life · Field Trip

1 Introduction

Garbage is one of the problems in society that is very difficult to overcome, especially in developing countries with a plural population like Indonesia. Garbage is a scourge for the community. Waste is an object that is not used or unwanted and must be disposed of, produced by human activities [1–3]. If we observe the type of waste based on its constituent substances, it is distinguished as organic and inorganic waste. Types of waste are also often grouped into solid waste (waste), liquid or used waste (sewage), and human waste [4–8]. Apart from that, much garbage is still scattered on the streets; even along the river, it is not free from garbage pollution [9, 10]. Thus, waste is a crucial problem that requires special and intensive handling from various parties.

Makassar City has the most significant waste production, increasing yearly. Based on data recorded at the Makassar city final disposal site (TPA), the development of

waste produced in the city of Makassar in the 2017–2019 range increased rapidly. Based on interview data with students, lecturers, and other stakeholders, it was recorded that around 350–400 tons per day were produced from the Makassar city final disposal site (TPA). Scavengers and cows more or less reduce waste by around 15–20 tons per day, meaning that if present, only 4–5% of the role of scavengers and cows in reducing waste (interview data, 2019). If the volume of waste generated continues to be high, the TPA will no longer be able to accommodate it. Although it is possible to create a new landfill, the best way is to reduce the amount of waste through the 3R concept (reduce, reuse, recycle) at the source level, namely the immediate household [11–13].

In general, urban waste is managed by the city government. Through the Sanitation Service, the government prepares a TPS (temporary disposal site) before being transported to the TPA (final disposal site). TPS is a place to dispose of waste sources (settlements, shops, markets, and trade centers), which lasts only 1–2 days. In residential areas, waste collection is coordinated by the urban village. Officers appointed by the urban village collect garbage from each resident's house and take it to the TPS. Likewise, for other sources of waste, officers collect waste at TPS but transport it daily, especially if there is much waste, such as from the market.

This method is adequate if the officers carry out their work responsibly. Furthermore, the waste contained in the TPS is transported by truck to the TPA. There are many ways to manage waste at TPA, but the most common are incineration, dumping, sanitary landfill, and composting [3, 14]. So, to reduce waste from sources by educating the public about waste management, to be precise, through formal education at schools or colleges. Environmental education studies can increase public awareness about waste problems [15, 16]. However, environmental education content in the formal education curriculum in Indonesia still needs to be added.

Educating the public about environmental values and issues can inspire people to support conservation and safety initiatives; this process is known as environmental education and is carried out by various actors and community groups to influence individual behavior and views. It conserved the earth's natural resources to benefit present and future generations [17, 18]. Formal environmental education is an environmental field activity organized through primary, secondary, and higher education schools. It is carried out structured and tiered manner using an integrated curriculum approach or a monolithic (separate) curriculum [19, 20].

Learning about environmental problems, especially waste problems, must also be carried out with appropriate and oriented methods that can change attitudes and behavior that care about the environment [22]. Even though it starts with increasing knowledge (cognitive aspect), keep the delivery from becoming boring, limited to theory, and meaningless. The knowledge will be meaningful for ourselves and others if applied with natural and spiritual wisdom [23]. Then students will consider whether a solution is right to choose or not. When thinking, students learn to make solutions to all problems.

The teaching strategies and methods educators use also affect the learning process at school. The provision of students who emphasize direct experience will last for a long time. So, learning by providing direct experience plays a significant role in the formation of students' abilities for the problems faced in the long term. For this reason, an educator must be able to develop learning whose vision is far ahead in equipping students to face

various challenges [16, 19]. One learning strategy that can provide direct experience is the Field Trip method.

The Field Trip method delivers subject matter by bringing students directly to objects outside the classroom or in an environment adjacent to the school so that students can observe or experience directly [24]. Applying the Field Trip method takes longer than learning with other models and methods. So, learning in this study was carried out outside the lecture schedule. Even though it takes a long time, the effectiveness of the learning process is more important, which will change students' attitudes.

Based on these problems and studies. This study aims to describe the increase in environmental awareness of Department of Elementary School Teacher Education students towards waste problems through the Field Trip method.

2 Method

Study this use design study descriptive quantitative. Type study intended to describe data about description concern environment students against problem rubbish through the application Field Trip method on eye studying education environment life obtained through a questionnaire, then the data processing with the help SPSS application. The population in the study is Department of Elementary School Teacher Education students, programmed eye studying Education Environment Life, and those that follow Field Trip activities as many as 50 people. The sample in the study is Department of Elementary School Teacher Education students who participated in Field Trip activities on eye studying Education Environment Life as many 30 people.

Technique data collection used covers questionnaires and documentation. Data that has been obtained is analyzed with the use of technical analysis statistics, that is, descriptive statistics and inferential statistics. Analysis of descriptive statistics in a study used to describe description concerning environment Department of Elementary School Teacher Education students against problem rubbish through application field trip method. Statistics descriptive intended in a study described acquisition data questionnaire concerning environment students against problem trash. Analysis statistics inferential intended for test hypothesis research before testing hypothesis primarily formerly held test data prerequisites. It tested data normality in a study using Kolmogorov-Smirnov Normality Test to know whether the data obtained was distributed normally. Then test, the hypothesis using the One Sample T-Test used test is description concerned environment students against problem rubbish through the application Field Trip method on eye studying education environment life could increase concern environment students.

3 Results and Discussion

One sample T-test (Table 1) shows that description concerns environmental students against problem rubbish through the Field Trip method on eye studying education environment life could increase concern environment students against problem trash. This can be seen in Table 1. The p-value obtained with two directions (sig 2-tailed) = 0.130. Because the p-value obtained = 0.130 > 0.05. From these results, it means that there is no significant effect between variables.

Based on results also shows that the results study is in line with some research conducted by several researchers previously related to education Environment Life to Increase Concern Student to Problems Garbage. Studies conclude that learning using the Field Trip method on Theory problem rubbish effectively increases the results study and concerns participants' education about the environment [25–27].

Learning uses the Field Trip method on Theory problem rubbish effectively increases results study and concern participant educate to the environment. Studies conclude that learning using the Field Trip method on Theory problem rubbish effectively increases results in the study and concerns participants' education about the environment.

Method visits field for embedding concern to the environment. Studies conclude that occur enhancement of knowledge about the environment live. Percentage completeness classic on cycle I of 77.5% increase on cycle II with completeness classic by 97.5%. 40.7% of students are often involved in an activity-guard environment. This shows that by visiting the Field, students can deepen their understanding of theory and practice learned in class through experiencing direct interaction with nature.

Talking about the background of the respondents, the respondents who have been selected are final semester students in the Department of Elementary School Teacher Education. Of course, when selecting final students who are respondents to our research, it is common to find many deficiencies, especially when the research is a student's final project. For this reason, the researcher will summarize the respondents' backgrounds in this study:

- a) The psychological factors of the respondents in this study differ from the research the researchers used as a reference because sometimes different people give different answers.
- b) The attitude of the respondents who seemed to need to be more knowledgeable about filling out the questionnaire was marked as filling out the questionnaire carelessly and not really because it was found that some of the statements had double answers.

Table 1. Independent Sample test

	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Std. Error Difference	95% Confidence The interval of the Difference	
							Lower	Upper
Equal variances assumed	.811	.372	1.540	48	.130	3.748	- 1.775	13.324
Equal variances not assumed			1.422	26.305	.167	4.061	- 2.568	14.117

However, the researcher understands this because all respondents were also focused on completing their final assignment, so they answered only as a formality.

- c) The condition factor also made it impossible for researchers to distribute questionnaires offline due to the ongoing COVID-19 pandemic, so the questionnaires were only distributed online via Google Forms. This makes it difficult for researchers to monitor the questionnaires by respondents, so filling out questionnaires carried out by respondents is not optimal.

Lack of strict supervision from researchers to respondents because in filling out this questionnaire, researchers did not impose sanctions on respondents. Only rewarding five selected respondents were given a reward in the form of cash of 50 thousand rupiahs per person. However, the provision of rewards also did not interest the respondents to answer each statement seriously.

4 Conclusion

Based on the research data analysis and discussion results, it can be concluded that the description of students' environmental concern for waste problems through applying the Field Trip method to environmental education courses cannot increase students' environmental awareness. Based on these findings, suggestions for future researchers, if there are researchers interested in researching the same theme, are expected to be able to develop this research because the conditions found in current students will be different from future students.

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