The Effect of Ecopreneurship Learning Model on Critical Thinking Skills of Students in Class IV of State Elementary School 025281 Binjai

Yuni Tri Asnani[1]

Article Info
Page : 1- 8
ISSN : 3026-5290
Vol 3 No 1 2025

Corresponding Author
Yuni Tri Asnani, Universitas Muhammadiyah Sumatera Utara
Email: yunit6831@gmail.com

Abstract
This study aims to determine whether the use of the Ecopreneurship Learning Model can affect students' Critical Thinking Skills or not. This study uses a Quantitative method and the type of research uses the Ecopreneurship Learning Model, the study was conducted at SD Negeri 025281 Binjai, North Binjai District. The population and sample in this study were 30 students in class IV-A and 30 students in class IV-B, totaling 60 students. Based on the frequency distribution of student test scores before using the Ecopreneurship Learning Model. The Conventional Learning Model of the control class was 78.53, while based on the frequency distribution of student test scores after using the Ecopreneurship Learning Model, the average value of the experimental class was 85.69. Here it can be concluded that there is an influence of the Ecopreneurship Learning Model on Critical Thinking Skills in Students in Class IV of SD Negeri 025281 Binjai. Based on the study, it is expected that students will improve their learning activities when learning takes place, dare to ask questions, have a great curiosity. The results of this study are expected to be a means of education for PGSD students in introducing the Ecopreneurship Learning Model to Critical Thinking Skills in Students as an innovative and futuristic learning model.

Keyword:
Critical Thinking Skills, Ecopreneurship, Science

1. INTRODUCTION

Education is a means to realize a cultural heritage from one generalization to another. Education is realized through learning activities in the learning process so that students actively develop their potential by learning and mastering knowledge and functional skills and developing attitudes and functional personalities (Alzizal and Walrdalni 2019). Then from the beginning it is multiplied with education, of course the hall that has a close relationship with the learning process, in general a learning concept in the class that provides more results. According to Udin S. Winaltalputral (2017) the learning center with learning has a substantive and functional relationship. The substantive relationship of learning in learning is located at the center of the knot that occurs behavioral changes in the individual. Functional interconnectedness of learning in learning is that learning is always carried out to produce a learning process and learning traffic is a learning parameter. However, it should be remembered that not all learning processes are consequences of learning. Therefore, in some cases, learning capabilities are internal/individual, while in others, learning capabilities are public. The results of the observation also show that the learning process is still monotonous, resulting in a lack of student innovation in learning, not involving students' more optimal roles, and not being able to improve critical and creative thinking skills in solving problems in everyday life, resulting in low student learning outcomes. The problems that arise in learning activities are that students are difficult to organize, difficult to focus, easily bored, lack of explanations explained by teachers, students become difficult to understand the concept, and teachers become difficult to condition the class. This study was conducted to create an attitude in learning for students who are not focused on learning because the teacher explains it with the lecture method, which in learning is still centered on the teacher and is of a lecture nature. The minimal activity of students in learning activities, students also receive little knowledge given by teachers and not at all. Learning activities that are still centered on the teacher have not fully involved students to the

maximum. Students still do less activities that involve all senses, skills and thinking abilities, in conclusion the learning carried out by teachers is still monotonous. With this research using the ecopreneurship learning model, students will learn to protect the environment around us and also learn to create simple business opportunities by utilizing plastic waste and other waste that can be used as valuable resources. The media discussion of learning from this provision is a form of student-centered learning. Learning is an active process for students to develop their potential. Students are involved in learning that is facilitated by the teacher so that learning flows in learning that involves thoughts, emotions, and is interwoven into activities that encourage students' practical thinking (Dananjaya, 2013:43).

Ecopreneurship Learning Model

Ecopreneurship is an entrepreneurship that involves environmental sustainability. When carrying out activities, students must consider environmental sustainability and always try to minimize the environmental impact of their activities on the environment. Ecopreneurship is based on two terms, namely Eco and Entrepreneur. Eco is taken from the term Ecological or ecology or Oikos: home or place of life (Ii et al. 2013). Ecopreneurship is based on ecological theory (the science that studies the reciprocal relationship between living things and their environment) in entrepreneurship. Ecopreneurship is a concept of entrepreneurship that is not only profit-oriented, but also cares about environmental aspects. Ecopreneurship is considered as a new field in the world of education, especially in inclusive education. So that in this research, it becomes an innovation in providing educational fields that are practical and futuristic. In principle, ecopreneurship prioritizes the natural environment in entrepreneurial values as well as in determining the behavioral patterns of students who are good at it, so that this is what distinguishes it from conventional education patterns in general. An ecopreneur is "those who are able to balance the natural entrepreneurial behavioral patterns in environmental development" (Sukoco & Muhyi. 2015, p. 157). Ecopreneurship is a halal entrepreneurship education that aims to create innovative, creative students who are able to face life challenges (Zalkalrial, Galnefri, and Yulalstri 2022). Ecopreneurship represents the process of halal entrepreneurship principles that are applied in order to create a business that is able to calculate the environment and operate sustainably. The term ecopreneurship has been widely used since the 1990s and is now called environmental entrepreneurship. The definition of ecopreneur is an activity that can be done as a business opportunity that is intended to gain profit, but also harm the environment around us in terms of environmental concerns. Ecopreneurship is a halal entrepreneurship concept that uses an environmental conservation approach (Herlinal et al., 2021). Green entrepreneurship not only helps improve the economy, but also helps preserve the environment. By entrepreneurship based on environmental management, the management can be sustainable.

Understanding the values of ecopreneurship from an early age is the best preventive and curative step in the world in Indonesia. The technical concept of ecopreneurship is easy to implement with the help of a variety of basic elements that are easy to understand in the environment (Alryalnto et al. 2019). Through this method, environmental conservation efforts are carried out in turn along with the emergence of new ideas that are environmentally friendly. Ecopreneurship is different from the concept of traditional entrepreneurship, in that ecopreneurship is more focused on understanding the basic elements of its formation (Salntini, 2017). Students can carry out this training as a way to increase the value and cleanliness of the environment by carrying out the provision of goods to become goods that are useful and have a marketable value in realizing the importance of entrepreneurship so that students can create opportunities and be creative through creative training to create their own skills (Putri Alnd Silallalhi 2018). Learning media that originate from the provision of goods can also realize ecopreneurship education which means environmentally friendly entrepreneurship education. In addition to realizing creativity in innovation, students can also provide alternative solutions to overcome problems. Problems can be valuable if we use creativity in our minds to process them into something that can be detrimental, especially in the field of education (Aldinugraha, 2018). The use of bottled drinks is still carried out in schools because they rarely pay attention to things like creativity by practicing problems. With the implementation of the creative training program for drinking water bottles, it has become a routine activity in schools, especially students, to increase environmental awareness by drinking water bottles, in addition, schools, especially students, can have skills in creativity and can increase environmental awareness (Putri and Silalahi 2018).

Understanding Critical Thinking Skills

Critical thinking is one of the high-level thinking skills needed in the development of 21st Century Skills. Every individual needs critical thinking skills in order to successfully solve problems in difficult situations. Every person needs to analyze and evaluate their life conditions to make important decisions (Rahardhian 2022). According to (Lindal and Lestalri 2019) and (Robert H. Ennis: 2011) states: critical thinking is realistic and reflective thinking focused on deciding what to believe or do, which means critical thinking is a reflective thinking process that focuses on deciding what is believed and then done. Critical thinking includes components of skills in analyzing arguments, drawing conclusions using inductive and deductive reasoning, assessing and evaluating, and making decisions and solving problems. Critical thinking is the skill of actively thinking using logic and rationality to sort out false information, then evaluate and reconstruct it into false knowledge (Bralhmowisalng, 2019: 43; Sudianti & Shinta, 2018: 179) and (Susanto, et al., 2021: 75). From the definition of the experts in the literature, the author concludes that critical thinking skills are the ability to solve problems that are inherent in every individual, thinking rationally and logically is also critical thinking, and being able to draw conclusions and analyze a report in a correct and correct manner.

2. RESEARCH METHODOLOGY

This study uses a qualitative method and the type of research using the Ecopreneurship Learning Model, the research was carried out at SD Negeri 025281 Binjali, Binjali Utara District. The population of this study was all grade V of SD Muhalmmaldiyalh 03 Binjali consisting of 2 classes with a total of 60 students, both Control and Experiment classes, sampling was carried out using the Total Sampling Technique. The instrument used in the study was a Test sheet, to improve Students' Critical Thinking Skills. The data collection technique is in the form of a preliminary test (Pre-Test) and a final test (Post-Test) with a total of 15 questions. Furthermore, the data analysis technique uses Validity Test, Reliability Test, Normality Test, Homogeneity Test and Hypothesis Test.

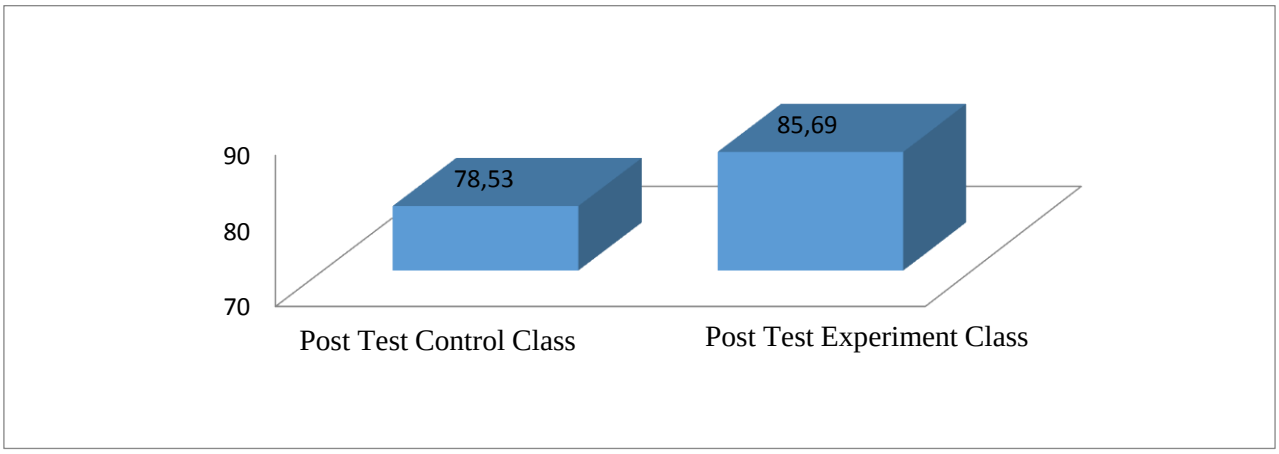
3. RESULT AND DISCUSSION

Based on the results of the analytical analysis using the following software:

Table 1. Statistical Description

Data	Number of Students	Min	Max	Amount
Post Test Control Class	30	68	85	78.53
Post Test Exkepriment Class	30	71	95	85.69

Based on table 1, the post-test results of the Control class were obtained with a minimum value of 68, a maximum value of 85, and a ratio of 78.53, while the Post-Test value of the Experimental Class was obtained with a minimum value of 71, a maximum value of 95, and a ratio of 85.69. The results can be seen in the following table:



Picture 1. Student Critical Thinking Skill Score Chart

It can be concluded from the table above that the Experimental class showed that 85.69 students had exceeded the KKM score. While the Control class showed that 78.53 students had not exceeded the KKM score.

1. Validity Test Results

Table 2. Validity Test Results

Test	R Count	R Table	Information
1	0.707	0.361	Valid
2	0.502	0.361	Valid
3	0.827	0.361	Valid
4	0.691	0.361	Valid
5	0.499	0.361	Valid
6	0.514	0.361	Valid
7	0.551	0.361	Valid
8	0.634	0.361	Valid
9	0.622	0.361	Valid
10	0.412	0.361	Valid
11	0.674	0.361	Valid
12	0.636	0.361	Valid
13	0.715	0.361	Valid
14	0.789	0.361	Valid
15	0.804	0.361	Valid

Source: Data Processing Unit (SPSS)

From the 15 items that have been given to the respondents, 15 items are valid. Item selection is carried out using the SPSS 25.0 application to find valid items and not by using the Ecopreneurship Learning Model for Critical Thinking Skills of Grade IV students. Based on the questionnaire, 15 valid items were selected and then tested on the students.

2. Reliability Test Results

This reliability test is used to find out how far the test results used in the data collection process are reliable. The instrument that returns does not change even though repeated testing is carried out consistently. This test is carried out using SPSS 25.0, the following is the calculation in the research instrument reliability test.

Table 3. Reliability Test Results

Reliability Statistics	
Cronbach's Alpha	N of Items
0.893	15

Based on the labels in the altals, it shows that the reallibilitals point of the test used is 0.893 points on the Cronbalch's ALphal label, with a total of 15 items. In other words, the value is included in the medium category, meaning that this test can be trusted and can be tested repeatedly.

3. Normality Test

The Normality Test aims to test the validity of the regression model of the related variable and the free variable, both of which have a normal distribution or not. To conduct this normality test, the researcher used SPSS 25 for Windows application. The Decision Making Experience in the Normality Test is as follows:

a) If sig. (Significance) <0.05, the data distribution is not normal.

b) If sig. (Significance) > 0.05, the data distribution is normally distributed.

The following are the results of the normality test:

Table 4. Results of the Normality Test

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Kelas		Statistic	Df	Sig.	Statistic	df	Sig.
Students Critical Thinking Skills Results	Pre-tes Ekperimen (Ecopreneurship)	0.227	30	.200*	.912	30	0.238
	Post-Test Eksperimen (Ecopreneurship)	0.131	30	.200*	.931	30	0.443
	Pre-test Kontrol (Konvensional)	0.394	30	.200*	.695	30	0.337
	Post-test Kontrol (Konvensional)	0.188	30	.200*	.874	30	0.465

a. Lilliefors Significance Correction

Based on the output of the Kolmogorov-Smirnov Normality test, it can be seen that the Significance Value (Sig) for the Pre-Test of the Experimental Class is 0.912 > 0.05, the post-test of the experimental class is 0.913 > 0.05, the pre-test for the control class is 0.695 > 0.05, and the post-test is 0.874 > 0.05. Since all sig values are > 0.05, it can be concluded that the variance of the Experimental class and the Control class are normally distributed.

4. Homogeneity Test

After it is known that the sample comes from a normally distributed population, the next step is to conduct a homogeneity test. The homogeneity test is carried out to see whether the sample is homogeneous or not and whether the sample has a common value. Thus, the sample represents the population. Homogeneity test in this study uses the level test with SPSS for Windows 25. In making decisions in homogeneity test:

a) If the value of Sig. Balsed on meal> 5% (0.05) indicates that the matter is homogeneous.

b) If the value of Sig. Balsed on meal <5% (0.05) indicates that the matter is not homogeneous

The results of the homogeneity test in the table are shown in the table below:

Table 5. Results of Homogeneity Test

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Students Critical Thinking Skills Results	Based on Mean	3.351	1	58	.972
	Based on Median	2.613	1	58	.911
	Based on Median and with adjusted df	2.613	1	53.498	.812
	Based on trimmed mean	3.211	1	58	.978

The dialtals label explains the significance value of sig. Balsed on meal of 0.972> 0.05. It means that the research data used is homogeneous. This means that the sample in this study can represent the sample with the same number, so the conclusions drawn from the sample can represent the conclusions for the population.

5. Hypothesis Testing Results

After the research requirement test, namely the normality test and the Homogeneity test, are met, the results are continued with the research hypothesis test. Hypothesis testing is used to test the formulated hypothesis and then to draw conclusions to accept the hypothesis and then reject the hypothesis. The conclusion is based on the output of SPSS 25, namely: if the value (Sig. two-sided p) < 0.05 then Ho is rejected and the case is accepted. If Ho is rejected and the case is accepted, the effect of the Ecopreneurship Learning Model on Critical Thinking Skills of Students in Grade IV of SD Negeri 025281 Binjai. The output results obtained are as follows:

Table 6. Hypothesis test results

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Students Critical Thinking Skills Results	Equal variances assumed	3.351	0.072	4.407	58	0.000	7.267	1.649	3.966	10.567
	Equal variances not assumed			4.407	53.451	0.000	7.267	1.649	3.960	10.573

Based on the 2-sided Equal Valuation test, the significance value is assumed to be 0.000 < 0.05. Based on the test criteria, Ho is rejected and Ha is accepted, meaning that the influence of the Ecopreneurship Learning Model on Critical Thinking Skills of Students in Grade IV of SD Negeri 025281 Binjai. The conclusion is drawn that Ha is accepted and Ho is rejected. Thus, the difference in learning outcomes using the Ecopreneurship Learning Model with the conventional learning model (Discussion) is calculated. The results showed that there were significant differences in the use of the Ecopreneurship Learning Model on Critical Thinking Skills of Students in Grade IV of SD Negeri 025281 Binjai.

4. CONCLUSION

The conclusion of this study is as follows:

1. The Creativity Ratio of Students' Learning Before (Pre-Test) Using the Ecopreneurship Learning Model is the Critical Thinking Skills of Students in Grade IV of SD Negeri 025281 Binjai in the learning process of IPAL learning is still in the low criteria. This can be seen from the post-test ratio of the control class, which is 74.36.
2. The Creativity Ratios of Students' Learning after (Post-Test) using the Ecopreneurship Learning Model in the learning process of the IPAL learning process are already in high criteria. This can be seen from the post-test ratios of the experiment, which is 85.69 which is recorded by 30 respondents. Students are also more interested, focused, and motivated when learning using the Ecopreneurship learning model. Students also reasoned that learning activities using the Ecopreneurship Learning Model were different

from learning activities using artificial media.

3. The influence of the Ecopreneurship Learning Model on Students' Critical Thinking Skills. This can be seen from the average value (meal) after using the media of 85.69 while the average value (meal) before using the media was 78.53, while the average value (meal) before using the media was 85.69> 78.53. It means that the Critical Thinking Skills of students using the Ecopreneurship learning model are greater than the Critical Thinking Skills of students who do not use the Ecopreneurship learning model. From the results of the T-Test and F-Test outputs in the significance column (sig) of 0.000. The conclusion is drawn that Ha is accepted and Ho is rejected. Thus, the difference in learning outcomes using the Ecopreneurship learning model is calculated. So it can be concluded that the influence of the use of the Ecopreneurship learning model on critical thinking skills of students in grade IV of SD Negeri 025281 Binjai.

REFRENCES

Adinugraha, Fajar. 2018. "Media Pembelajaran Biologi Berbasis Ecopreneurship." *Formatif: Jurnal Ilmiah Pendidikan MIPA* 7(3): 219–33.

Anon. 2017. "Mempunyai Makna Yang Berbeda,." 1–6.

Arif, Dimas Sofri Fikri, Zaenuri, and Adi Nur Cahyono. 2019. "Analisis Kemampuan Berpikir Kritis Matematis Pada Model Problem Based Learning (PBL) Berbantu Media Pembelajaran Interaktif Dan Google Classroom." *Prosiding Seminar Nasional Pascasarjana UNNES* (2018): 323–28. https://proceeding.unnes.ac.id/snpasca/article/view/594.

Aryanto, Sani, Markum Markum, Vira Pratiwi, and Cahyadi Husadha. 2019. "Ecobrick Sebagai Sarana Pengembangan Diri Berbasis Ecopreneurship Di Sekolah Dasar." *DWIJA CENDEKIA: Jurnal Riset Pedagogik* 3(1): 93

Azizah, Aninda Nurul, and Naniek Sulistya Wardani. 2019. "Jurnal Riset Teknologi Dan Inovasi Pendidikan Upaya Peningkatan Hasil Belajar Matematika Melalui Model Project Based Learning." *Aninda Nurul* 2(1): 194–204.

Cinthya, Anastasia, and Heru Budi Kusuma. 2018. "Meningkatkan Kreativitas Seni Melalui Pelatihan Membuat Karya Dengan Memanfaatkan Botol Plastik Bekas." *Jurnal Pengabdian dan Kewirausahaan* 2(1): 10–16.

Delitasari, Indri, and Nur Hidayah. 2017. "Implementasi Pendidikan Entrepreneurship Di SD Entrepreneur Muslim Alif-A Piyungan Yogyakarta." *Proceeding The 6th University Research Colloquium 2017: Seri Pendidikan,Universitas Muhammadiyah Magelang*: 179–86.

Faridatun, Faridatun. 2022. "Ecoprint ; Cetak Motif Alam Ramah Lingkungan." *Jurnal Prakarsa Paedagogia* 5(1).

Ii, B A B, A Pembelajaran Tematik, Pengertian Pembelajaran, and Tematik Terpadu. 2013. "No Title." : 8–38.

Janna, Nilda Miftahul, and Herianto. 2021. "Artikel Statistik Yang Benar." *Jurnal Darul Dakwah Wal-Irsyad (DDI)* (18210047): 1–12.

JASMINE, KHANZA. 2018. "済無No Title No Title No Title." *Penambahan Natrium Benzoat Dan Kalium Sorbat (Antiinversi) Dan Kecepatan Pengadukan Sebagai Upaya Penghambatan Reaksi Inversi Pada Nira Tebu*.Linda, Zakiah, and Ika Lestari. 2019. Erzatama Karya Abadi *Berpikir Kritis Dalam Konteks Pembelajaran*.

Pelita, Anindya Chasti, and Hendro Widodo. 2020. "Evaluasi Program Sekolah Adiwiyata Di Sekolah Dasar Muhammadiyah Bantul Kota." *Sekolah Dasar: Kajian Teori dan Praktik Pendidikan* 29(2): 145–57.

Putri, Rizqy Fadhlina, and Alistraja Dison Silalahi. 2018. "Pemanfaatan Limbah Botol Plastik Bekas Menjadi Barang Yang Bernilai Estetika Dan Ekonomi." *Prosiding Seminar Nasional Hasil Pengabdian 2018* 1(1): 233–36.

Rahardhian, Adhitya. 2022. "Kajian Kemampuan Berpikir Kritis (Critical Thinking Skill) Dari Sudut Pandang Filsafat." *Jurnal Filsafat Indonesia* 5(2): 87–94.

Savitri Noor, Laili, Bayu Retno, and Lies Putriana. 2023. "Minat Menjadi Ecoprenuenuer Pada Remaja Pengelola Garden Taruna Tani Kecamatan Kalisari, Jakarta Timur." *JRB-Jurnal Riset Bisnis* 6(2): 272–89.

Siregar Aisyah, Nur, Nikmah Harahap Royani, and Hotni Harahap Sari. 2023. "Hubungan Antara Pretest Dan Posttest Dengan Hasil Belajar Siswa Kelas VII B Di MTS Alwashliyah Pantai Cirebon." *Edunomika* 07(01): 2–3.

Srining Prapti, Meniek, Eny Trimeiningrum, and Bernadeta Irmawati. 2020. "Faktor Penghambat Dan Pemicu Menjadi Ecopreneur Studi Pada Ikm Di Kota Semarang." *Forum Manajemen Indonesia koordinator Wilayah Daerah Istimewa Yogyakarta*: 1–9. https://ekbis.sindonews.com.

Studi, Program, Pendidikan Dasar, Sekolah Pascasarjana, and Universitas Pendidikan Indonesia. 2018. "Implementasi Program Ecopreneurship."

Supriadi, S. (2020). Implementasi Metode Demonstrasi Untuk Meningkatkan Pengetahuan Guru Terhadap Sekolah Adiwiyata. Jurnal Pajar (Pendidikan dan Pengajaran), 4(1). https://doi.org/10.33578/pjr.v4i1.7928

Wijoyo, Hendro. 2022. "Analisis Teknik Wawancara (Pengertian Wawancara, Bentuk- Bentuk Pertanyaan Wawancara) Dalam Penelitian Kualitatif Bagi Mahasiswa Teologi Dengan Tema Pekabaran Injil Melalui Penerjemahan Alkitab." *Academia.Edu*: 1–10.

Zakaria, Zakaria, Ganefri Ganefri, and Asmar Yulastri. 2022. "Pengembangan Jiwa Edupreneurship Siswa Melalui Kepemimpinan Yang Demokratis Di Sekolah." *Jurnal Valuasi: Jurnal Ilmiah Ilmu Manajemen dan Kewirausahaan* 2(2): 944–55.