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GREEN LEARNING BASED ON SCL IN ANALYSING FOREST BIODIVERSITY TO INCREASE THE SKILL OF STUDENTS' SCIENCE PROCESS OF FKIP UISU MEDAN

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Abstract. *Before using SCL-based green learning the average level of science process skills of students or Pre Test = 23.19, after using Post Test = 65.33. Data analysis t count = 25.50> t table = 1.72 showed there was a significant increase in students' science process skills after using SCL-based green learning. For the lowest science process skills that is "applying the concept" the value of gain = 0.25 and based on the observation sheet that students are easier to classify if there are LKM guidelines and guidance as well as students do not easily believe if the observational data has not been proven. The gain value of "hypothesized" = 0.40 and based on the observation sheet hypothesized = 65% is categorized as almost sufficient. Biodiversity analysis data that 2404 individuals with 155 species were collected in transect pulls. The total number of Angyosperms sub-divisions is 132 species (115 dicotyl and 17 species of monocotyl species) and the rest are Gymnosperms and Pteridophyta subdivisions. It is known for the level of plant families in the Garden of Eden 100 of the 155 most dominant species are the Fabaceae family of which 9 species, out of a total of 72 families.*

Keywords: Green Learning, SCL, Biodiversity, Science Process Skill.

INTRODUCTION

A new paradigm shift from teaching to learning according to the concept of Active Learning, Innovative, Environmental, Creative, Effective, Enjoyable (PAILKEM), then as a lecturer must be able to carry out student-centered learning (student centered learning), where the lecturer acts as a facilitator . In the PAILKEM concept, it can utilize the environment as a place or source of learning.

Learning Biology must be able to improve students' overall understanding, activities and creativity. Students must be equipped with the ability "how to know", "how to do" that can help students to understand the environment. Biology learning must essentially include processes, products, and scientific attitudes. Preparation and development of Biology learning tools, emphasizing student experience by exploring the environment.

In Tobasa district, North Sumatra, there is a forest called Taman Eden 100, located above an altitude of 1,100 s.d. 1,750 meters above sea level. This park is located in the hills of the village of North Sionggang, Lumbanjulu District, Toba Samosir Regency, North Sumatra. This forest has a very high biodiversity, but the flora in it does not yet have a scientific name and even many still use the name of the Batak region.

Eden Park 100 as a tourist attraction that has potential and requires planning that can provide an overview of matters relating to its management going forward, for that it is necessary to study and assess the existing potentials. By looking at the conditions, this forest really has the potential that needs to be developed that can support scientific development and increase students' science process skills, and this forest as a "natural laboratory". The application of green learning is made as an effort to explore the potential of natural resources in the forest, because through direct experience and growing awareness and care for the forest and reveal the potential of flora that needs to be preserved.

LITERATURE REVIEW

Green learning is a method of utilizing the natural environment as a means of learning by practicing. The environment can be a forest, beach, or social environment. Each environment has different characteristics so that students gain different experiences and students and lecturers can explore it as an independent learning place.

Lecturers can guide students in finding and discovering "new things", for example determining the level of plant taxon in a "germplasm" forest. The process of analyzing biodiversity is to do the scanning, classification, calculating plant density, dominance, calculating the economic value of plants. Forests as natural resources, students directly interact to observe and preserve so as to enhance scientific thinking using scientific methods and being scientific. This is what is called the science process skill. Students are required to learn actively that are implied in activities physically and mentally, so they can develop competency skills in exploring the natural surroundings scientifically

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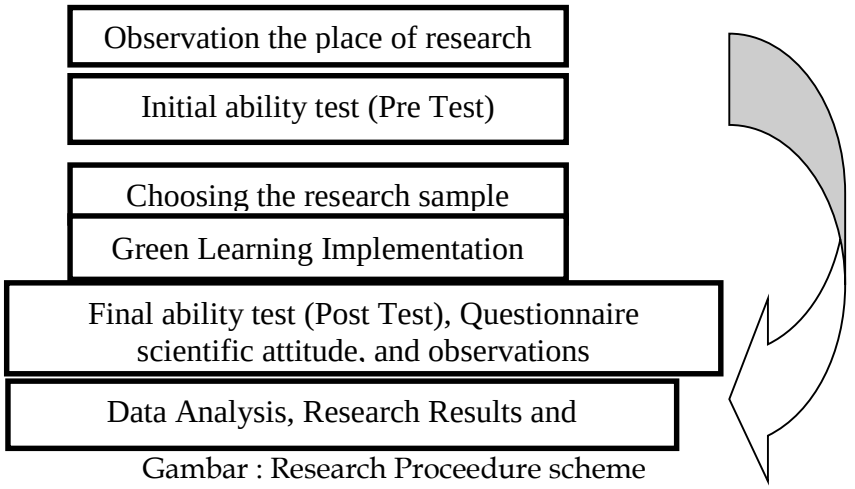
METHDOLOGY

To determine the level of science process skills of students by comparing pre-test scores with post-tests, then the assessment of scientific attitude and observation questionnaires. The steps as follows.



Gambar : Research Proceedure scheme

FINDINGS AND DISCUSSIONS

Student Science Process Skill Score Based on Test

Table 1. List of Frequency Distribution of Student Pre Test Values

No	Test Score	fi	xi	xi^2	fi.xi	$fi.xi^2$
1	10,00-14,00	3	12,00	144	36	432
2	15,00-19,00	3	17,00	289	51	867
3	20,00-24,00	7	22,00	484	154	3388
4	25,00-29,00	3	27,00	729	81	2187
5	30,00-34,00	4	32,00	1024	128	4096
6	35,00-40,00	1	37,00	1369	37	1369
	Total	21	147,00	4039	487	12339

As seen in Table 1 above the pre-test average value ($\bar{x}$) was 23.19 and the standard deviation was 7.22. From the list of pre-test frequency distributions using Green Learning can be illustrated in the histogram below:

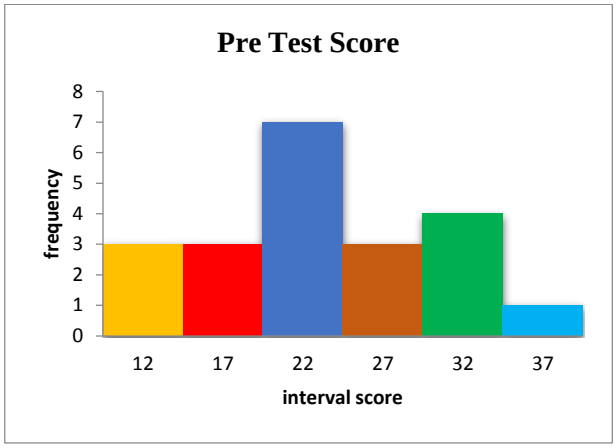


Figure 3. Histogram of Student Pre Test Values

Figure 3. Histogram of Student Pre Test Values

No	Test Score	fi	Xi	xi^2	fi.xi	$fi.xi^2$
1	47-53	3	50	2500	150	7500
2	54-60	3	57	3249	171	9747
3	61-67	7	64	4096	448	28672
4	68-74	4	71	5041	284	20164
5	75-81	3	78	6084	234	18252
6	82-88	1	85	7225	85	7225
	Total		405	28195	1372	91560

Based on Table 2 above obtained an average post-test value ($\bar{x}$) of 65.33 and a standard deviation of 9.80. From the list of post test frequency distributions using Green Learning can be illustrated in the histogram below:

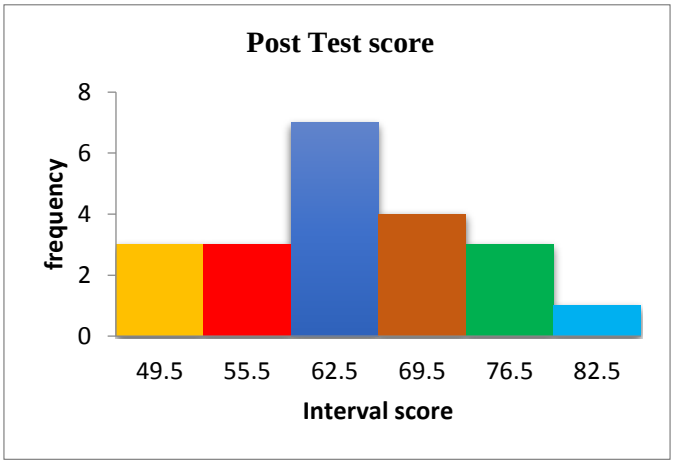


Figure 4. Graph of Post Test Values of Biology Education FKIP UISU students

Table 3. Data on Gain Value

No	Test Indicator	Gain
1	Observation	0,40
2	Classification	0,50

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3	Interpretation	0,75
4	Prediction	0,59
5	Inquiry	0,58
6	Propose hypothesis	0,40
7	Planning Training	0,41
8	Using material	0,70
9	Concept implementation	0,29
10	Communication	0,43

In Table 3 above the value of an increase in students' science process skills is assessed based on the results of the gain score. Each question indicator is compiled and an increase score is calculated. To calculate the results of the gain score of each indicator each problem is obtained from the Gain Calculation formula.

Student Science Process Skill Scores Based on Observation Results
Table 5. Observation Results of Science Process Skills

No	Aspect of KPS	Implementation of Presentase
1	Observation	85 %
2	Interpretation	73.33 %
3	Classification	70 %
4	Prediction	92.5 %
5	Comunication	95 %
6	Propose Hypothesis	65 %
7	Doing Training	80 %
8	Impelemnting Consept	80 %s
9	Inquiry	81,66 %

Based on Table 5 above, it can be seen that the percentage of students' science process skills appears that aspects of science process skills are still relatively low, namely the hypothesized aspect. But overall the percentage of aspects of science process skills has good observations.

The Gain calculation results obtained from the test test then obtained the final increase score values seen that the indicator "observe (0 observation)" obtained gain that is equal to 0.4 in the medium category, and the acquisition of the observation sheet for the category of observation (observation) that is equal to 95 %; the gain score on the "classifying" indicator that is 0.50 is in the medium category, while the value obtained from the observation sheet is 70%, students are sufficiently able to recognize plants based on the characteristics given; the gain score on the "interpreting" indicator of 0.75 is in the high category, while the acquisition value of the observation sheet is 73.33%; the gain

score on the "predict / prediction" indicator of 0.59 is in the medium category, while the acquisition value of the observation sheet is 92.5%; the gain score on the indicator "asking questions" that is 0.58 is in the sufficient category, while the acquisition of the value of the observation sheet is 92.5%; the gain score on the "hypothesized" indicator is 0.40 in the medium category, while the acquisition value from the observation sheet is 65%; the gain score on the "plan experiment" indicator, which is 0.41, is in the medium category, while the acquisition value is from the 80% observation sheet; the gain score of the indicator "using tools and materials" is 0.70 in the medium category, while the acquisition value of the observation sheet is 80%; the gain score of the indicator "applying the concept" is 0.29 in the low category, while the acquisition value of the observation sheet is 80%; the gain score of the "communicating" indicator is 0.43 in the medium category, while the acquisition value of the observation sheet is 95%.

Overall, the results of the study indicate that the application of Green Learning has a significant effect in improving students' skills in observing, grouping, interpret, predict,ask questions, hypothesize, plan experiments, use tools and materials, and communicate learning outcomes (communicate), and have insignificant influence in improving the skills of applying concepts by students.

From the results of the acquisition of the percentage score on the observation sheet, according to the indicators of science process skills, obtained that for observing indicators obtained amount of 95%, this means that the ability of observing possessed by students is very good. For interpreting indicators obtained by 73%, this means that the ability interpreting students is enough. Indicator grouping is obtained by 70%, this means that the ability of students in the indicator grouping is sufficient. Indicator predicts getting 92.5%, this means the ability of students in predicting classified as very good. Communication indicators are obtained at 95%, that means very good. The hypothesized indicator is obtained by 65%, this means that the ability of students to hypothesize is lacking. Indicator of planning an experiment is obtained by 80%, this means that the level of student ability is quite good. The indicator of using tools and materials obtained is 80%, this means that students' abilities are good. Indicators applying the concept obtained by 80%, this means that the ability of students is good.

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The indicator of asking questions obtained 81.6%, this means that the ability of students in this case is quite good.

Pre Test data obtained an average of 23.19. Post test results obtained an average of 65.33; with the results of the calculation of tcount> ttable or 25.50> 1.72.

Thus, there is an increase in students' science process skills using SCL-based Green Learning because it has advantages in its application, namely learning into nature / forest which gives a positive feel, learning is more real. This method can encourage students to explore directly the learning process and foster active and scientific attitudes.

Table 6. Density, Relative Density, Frequency, Relative Frequency, Dominance, Relative Dominance and Significance Value Index

No	Scientific Names	Local	K	KR	F	FR	D	DR
1	*Ficus decipiens*	Pohon ara	0,005	0,794	0,2	1,190	0,04	3,030
2	*Dacrydium elatum*	Sampinur tali	0,025	3,974	0,6	3,571	0,04	3,030
3	*Blumeodendrom kurzii*	Medang	0,012	1,907	0,4	2,380	0,04	3,030
4	*Solanum betaceum*	Tiung	0,007	1,112	0,6	3,571	0,04	3,030
5	*Casuarina equisetifolia*	Cemara angin	0,02	3,179	0,8	4,761	0,04	3,030
6	*Rubus idaeus*	Rapsberry	0,12	0,608	0,6	2,777	0,002	2,272
7	*Ficus padana*	Motung	0,005	0,794	0,4	2,380	0,04	3,030
8	*Parkia speciosa*	Petai	0,03	1,886	0,4	3,773	0,01	4,545
9	*Artocarpus heterophylla*	Nangka	0,005	0,794	0,4	2,380	0,04	3,030
10	*Atlingia excels*	Rosamala	0,005	0,794	0,4	2,380	0,04	3,030
11	*Syzygium malaccacense*	Jambu bol	0,01	0,628	0,2	1,886	0,01	4,545
12	*Artocarpus elastic*	Torop	0,012	1,907	0,6	3,571	0,04	3,030
13	*Terminalia catappa*	Ketapang	0,015	2,384	0,6	3,571	0,04	3,030
14	*Gmelina arborea*	Jati putih	0,005	0,794	0,4	2,380	0,04	3,030
15	*Homolanthus populneus*	Andulpak	0,05	3,144	0,6	5,660	0,01	4,545

16	*Erythrina indica*	Dadap	0,012	1,907	0,6	3,571	0,04	3,030
17	*Garcinia atroviridis*	Gelugur	0,007	1,112	0,4	2,380	0,04	3,030
18	*Commelina nudiflora Linn*	Aur-aur	4	1,069	0,6	1,935	0,0004	1,785
19	*Viola pilosa*	Viola	6,25	1,671	0,6	1,935	0,0004	1,785
20	*Plectranthus scutellrioides*	Iler	0,5	0,133	0,2	0,645	0,0004	1,785
21	*Sida rhombifolia*	Sidaguri	0,08	5,031	0,8	7,547	0,01	4,545
22	*Ageratum conyzoides*	Bandotan	16,25	4,344	0,6	1,935	0,0004	1,785
23	*Coffea robusta*	Kopi	0,28	1,419	0,6	2,777	0,002	2,272
24	*Axonopus compressus*	Rumpput karpet	62,5	16,711	1	3,225	0,0004	1,785
25	*Asystasia gangetica*	Rumput Israel	44,5	11,898	0,8	2,580	0,0004	1,785
26	*Primula vulgaris*	Primula	6,25	1,671	0,4	1,290	0,0004	1,785
27	*Centella asiatica*	Pegagan	13,75	3,676	0,8	2,580	0,0004	1,785
28	*Achyanthes aspera*	Jarong	15	4,010	0,6	1,935	0,0004	1,785
29	*Elephantopus scaber*	Tapak liman	5	1,336	0,4	1,290	0,0004	1,785
30	*Clidemia hirta*	Harendong bulu	25	6,684	0,8	2,580	0,0004	1,785
31	*Cinnamomum burmanii*	Kayu manis	0,04	2,515	0,6	5,660	0,01	4,545
32	*Flacourtia rukam*	Rukam	0,2	1,014	0,6	2,777	0,002	2,272
33	*Adiantum* sp.	Suplir	4,5	1,203	0,6	1,935	0,0004	1,785
34	*Angiopteris evecta*	Paku gajah	0,6	3,042	0,8	3,703	0,002	2,272
35	*Hibiscus rosa-sinensis* Linn.	Kembang sepatu	0,06	3,773	0,4	3,773	0,01	4,545
36	*Bischofia javanica*	Sikkam	0,05	3,144	0,4	3,773	0,01	4,545
37	*Arenga pinnata*	Aren	0,017	2,702	0,6	3,571	0,04	3,030
38	*Eriobotrya japonica*	Biwa	0,1	6,289	0,6	5,660	0,01	4,545

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39	*Agthis dammara*	Damar	0,36	1,825	0,6	2,777	0,002	2,272
40	*Syzygium aqueum*	Jambu air	0,2	1,014	0,4	1,851	0,002	2,272
41	*Ficus benjamina*	Beringin	0,025	3,974	0,6	3,571	0,04	3,030
42	*Typhonium flagelliforme*	Keladi tikus	3	0,802	0,8	2,580	0,0004	1,785
43	*Lantana camara*	Tembelekan	0,1	6,289	0,6	5,660	0,01	4,545
44	*Selaginella* sp.	Paku rane	3,75	1,002	0,8	2,580	0,0004	1,785
45	*Zanthoxylum acanthopodium*	Andaliman	0,4	2,028	1	4,629	0,002	2,272
46	*Lycopodium cerenuum*	Paku kawat	5	1,336	0,8	2,580	0,0004	1,785
47	*Flacourtia jagomas*	Tada Tada	5	1,336	0,8	2,580	0,0004	1,785
48	*Melastoma malabathricum*	Sanduduk	0,6	3,042	1	4,629	0,002	2,272
49	*Platycerium bifurcatum*	Paku tanduk rusa	2,5	0,668	0,6	1,935	0,0004	1,785
50	*Cibotium barometz*	Pakis ekor monyet	4,75	1,270	0,8	2,580	0,0004	1,785
51	*Pteridium aquilum*	Paku garuda	0,5	0,133	0,2	0,645	0,0004	1,785
52	*Nepenthes ampullaria / N. tobaica*	Kantong semar	11,25	3,008	0,8	2,580	0,0004	1,785
53	*Citrus hystrix*	Jeruk purut	0,05	3,144	0,4	3,773	0,01	4,545
54	*Muraya paniculata*	Kemuning	2,25	0,601	0,6	1,935	0,0004	1,785
55	*Euphorbia hirta*	Patikan kebo	21,25	5,681	0,8	2,580	0,0004	1,785
56	*Stachytarpheta jamaicensis*	Jarong akik	6,25	1,671	0,4	1,290	0,0004	1,785
57	*Borreria laevis*	Rumput ungu	7,5	2,005	0,6	1,935	0,0004	1,785
58	*Calopogonium mucunoides*	Kacang asu	8,75	2,339	0,6	1,935	0,0004	1,785
59	*Axonopus fissifolius*	Rumput permadani	6,25	1,671	0,4	1,290	0,0004	1,785

60	*Physalis peruviana*	Ciplukan	7,5	2,005	0,6	1,935	0,0004	1,785
61	*Paederia foetida*	Daun kentut	10	2,673	0,8	2,580	0,0004	1,785
62	*Heliconia psittacorum*	Helikonia	0,6	3,042	0,4	1,851	0,002	2,272
63	*Euphorbia pulcherrima*	Kastuba	0,8	4,056	0,6	2,777	0,002	2,272
64	*Calophyllum inophyllum*	Nyamplung	0,6	3,042	0,6	2,777	0,002	2,272
65	*Calamius rotang*	Rotan	0,037	5,882	0,6	3,571	0,04	3,030
66	*Alpinia purpurata*	Lengkuas merah	2,5	0,668	0,4	1,290	0,0004	1,785
67	*Etlingera elatior*	Honje	0,28	1,419	0,4	1,851	0,002	2,272
68	*Morus alba*	Blackberry	0,8	4,056	0,6	2,777	0,002	2,272
69	*Ficus benjamina*	Hariara	0,037	5,882	0,6	3,571	0,04	3,030
70	*Curcuma* sp.	Kunyit	2	0,534	0,6	1,935	0,0004	1,785
71	*Zingiber officinale*	Jahe	2,5	0,668	0,6	1,935	0,0004	1,785
72	*Andrographis paniculata*	Sambiloto	1,25	0,334	0,4	1,290	0,0004	1,785
73	*Curcuma xanthorrhiza*	Temulawak	2,5	0,668	0,6	1,935	0,0004	1,785
74	*Cyathea* sp.	Paku tiang	0,017	2,702	0,6	3,571	0,04	3,030
75	*Psidium catleanum*	Jambu leci	0,48	2,434	0,6	2,777	0,002	2,272
76	*Plantago major*	Sesendok	3,5	0,935	0,6	1,935	0,0004	1,785
77	*Areca catechu*	Pinang	0,08	5,031	0,4	3,773	0,01	4,545
78	*Agathis damara*	Damar	0,025	3,974	0,4	2,380	0,04	3,030
79	*Podocarpus neriifolius*	Ki putrid	1,75	0,467	0,6	1,935	0,0004	1,785
80	*Citrus aurantifolia*	Jeruk nipis	0,6	3,042	0,6	2,777	0,002	2,272
81	*Citrus sinensis*	Jeruk manis	0,4	2,028	0,4	1,851	0,002	2,272
82	*Durio zibuthinus*	Durian	0,05	3,144	0,4	3,773	0,01	4,545

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83	*Persea Americana*	Alpukat	0,08	5,031	0,4	3,773	0,01	4,545
84	*Oldenlandia* sp.	Rumput mutiara	4,5	1,203	0,8	2,580	0,0004	1,785
85	*Pennisetum purpure* Liin.	Rumput gajah	3,96	20,081	0,8	3,703	0,002	2,272
86	*Rhodamnia cinerea* Jack.	Ki besi	0,08	0,405	0,2	0,925	0,002	2,272
87	*Catharanthus roseus*	Tapak darah	2	0,534	0,4	1,290	0,0004	1,785
88	*Canna indica*	Bunga tasbih	0,24	1,217	0,4	1,851	0,002	2,272
89	*Brugmansia versicolor*	Bunga terompet kuning	0,4	2,028	0,4	1,851	0,002	2,272
90	*Nephenthes tobaica*	Kantong semar	5	1,336	0,6	1,935	0,0004	1,785
91	*Casuarina* sp.	Cemara embun	0,062	9,856	0,8	4,761	0,04	3,030
92			0,36	1,825	0,6	2,777	0,002	2,272
93	*Delonix regia*	Flamboyan	0,015	2,384	0,4	2,380	0,04	3,030
94	*Heliconia bihai purpurea*	Helikonia merah	0,12	0,608	0,2	0,925	0,002	2,272
95	*Thuja orientalis*	Cemara kipas	0,037	5,882	0,6	3,571	0,04	3,030
96	*Calliandra callothyrsus*	Kaliandra	0,08	5,031	0,6	5,660	0,01	4,545
97	*Cordyline fruticosa*	Hanjuang	3,25	0,868	0,6	1,935	0,0004	1,785
98	*Aglonema* sp.	Talas	0,4	2,028	0,4	1,851	0,002	2,272
99	*Anaphalis longifolia*	Edelwis	0,02	3,179	0,4	2,380	0,04	3,030
100	*Spathoglothis plicata*	Anggrek tanah	1,5	0,401	0,4	1,290	0,0004	1,785
101	*Elaecarpus grandiflura*	Anyang-anyang	0,037	5,882	0,6	3,571	0,04	3,030
102	*Swietenia macrophylia*	Mahoni	0,025	3,974	0,6	3,571	0,04	3,030
103	*Celtis regescens*	Bintatar	0,0325	5,087	0,6	3,571	0,04	3,030
104	*Dipteracarpus retusus*	Keruing	0,022	3,497	0,6	3,571	0,04	3,030

105	*Impatiens platypetalum*	Pacar cina	2	0,534	0,4	1,290	0,0004	1,785
106	*Barlenia pnonibs* Linn.	Landep	0,6	3,042	0,6	2,777	0,002	2,272
107	*Tinospora crispa*	Brotuwali	0,2	1,014	0,4	1,851	0,002	2,272
108	*Myristica fragrans*	Pala	0,007	1,112	0,2	2,380	0,04	3,030
109	*Toona surenii*	Suren	0,02	3,179	0,6	3,571	0,04	3,030
110	*Alocasia cuculato*	Nampu hijau	0,24	1,217	0,2	0,925	0,002	2,272
111	*Pyrrosia piloselloides*	Sisik naga	0,2	1,014	0,4	1,851	0,002	2,272
112	*Ampelocissua thyrsiflora*	Gagatan Harimau	0,08	0,405	0,2	0,925	0,002	2,272
113	*Calathea* sp.	Kalatea	1,5	0,401	0,4	1,290	0,0004	1,785
114	*Orthosipon stamineus*	Kumis kucing	0,4	2,028	0,4	1,851	0,002	2,272
115	*Sauropus androgynus*	Katuk	0,36	1,825	0,6	2,777	0,002	2,272
116	*Jacobinia loccinea syn*	Lili merah	1	0,267	0,2	0,645	0,0004	1,785
117	*Syzygium oleina*	Pucuk merah	0,32	1,622	0,4	1,851	0,002	2,272
118	*Saccharum spntoneum.* Linn.	Gelagah	1,25	0,334	0,2	0,645	0,0004	1,785
119	*Gynura procumbens*	Sambung nyawa	1,75	0,467	0,4	1,290	0,0004	1,785
120	*Solanum muricatum*	Pepino	0,2	1,014	0,2	0,925	0,002	2,272
121	*Canarium indicum*	Kenari	0,08	5,031	0,4	3,773	0,01	4,545
122	*Ciospyrus celebica*	Kayu hitam	0,007	1,112	0,2	1,190	0,04	3,030
123	*Borassus flabellifer*	Bontar	0,24	1,217	0,4	1,851	0,002	2,272
124	*Diorpiros kaki*	Kesemek	0,16	10,062	0,6	5,660	0,01	4,545
125	*Cynometra kauliflura*	Nam-nam	0,4	2,028	0,6	2,777	0,002	2,272
126	*Bucklandia populnea*	Hapas-hapas	0,32	1,622	0,4	1,851	0,002	2,272

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127	*Sesbaria grandiflora*	Turi	0,2	1,014	0,4	1,851	0,002	2,272
128	*Pluchea indica*	Beluntas	0,28	1,419	0,4	1,851	0,002	2,272
129	*Aegie marmelos*	Buah maja	0,09	5,660	0,6	5,660	0,01	4,545
130	*Bixa orellana*	Kesumba	0,2	1,014	0,4	1,851	0,002	2,272
131	*Bisehofia javanica*	Sikkam	0,18	11,320	0,6	5,660	0,01	4,545
132	*Pleomele angustifolia*	Suji	0,44	2,231	0,4	1,851	0,002	2,272
133	*Seana sionea*	Johar	0,1	6,289	0,6	5,660	0,01	4,545
134	*Neonauetea calycina*	Algilit	2,5	0,668	0,4	1,290	0,0004	1,785
135	*Mucus macroura*	Andalas	0,36	1,825	0,6	2,777	0,002	2,272
136	*Biospyros blancai*	Bisbul	0,06	3,773	0,4	3,773	0,01	4,545
137	*Crinum asiatucum*	Bakung	0,5	0,133	0,2	0,645	0,0004	1,785
138	*Jatropa curcos*	Jarak pagar	0,04	0,202	0,2	0,925	0,002	2,272
139	*Cananga oderata*	Kenaga	0,56	2,839	0,4	1,851	0,002	2,272
140	*Curculigo cavitolata*	Cengkok	2	0,534	0,4	1,290	0,0004	1,785
141	*Solanum lycopersicum*	Tomat krismil	1	0,267	0,2	0,645	0,0004	1,785
142	*Syzigium jambos*	Jamu mawar	0,015	2,384	0,4	2,380	0,04	3,030
143	*Termeninalia catta*	Ketapang	0,025	3,974	0,6	3,571	0,04	3,030
144	*Uncuria gambir*	Gambir	4,5	1,203	0,6	1,935	0,0004	1,785
145	*Zanthoxyllum accanthopodium*	Andaliman	0,8	4,056	0,6	2,777	0,002	2,272
146	*Ficus pungens*	Neroso	0,4	2,028	0,6	2,777	0,002	2,272
147	*Climedia hirta*	Harendong bulu	5,5	1,470	0,8	2,580	0,0004	1,785
148	*Evodia suaveolens*	Waru	1,5	0,401	0,4	1,290	0,0004	1,785
149	*Sonchus arvensis*	Tempuyung	2,5	0,668	0,6	1,935	0,0004	1,785

150	*Erythrina variegate*	Dadap	/2,5	0,668	0,6	1,935	0,0004	1,785
151	*Mangifera foetida*	Ambacang	0,05	3,144	0,4	3,773	0,01	4,545
152	*Sonchus arvensis*	Tempuyung	1	0,267	0,4	1,290	0,0004	1,785
153	*Bambusa vulgaris*	Bambu	0,01	0,628	0,2	1,886	0,01	4,545
154	*Coleus hybridus*	Miana	1,75	0,467	0,4	1,290	0,0004	1,785
155	*Pithecellobium lobatum*	Jengkol	0,012	1,907	0,4	2,380	0,04	3,030

Analysis of Plant Biodiversity in the 100 Lumban Julu Tobasa Forest Park

Species were found with a total of 155 individuals, with a total of 2404 individuals including the Angiosperms and Gymnospermame sub-divisions. The total number of angyosperms sub-divisions was 132 species and the gymnosperms sub-division was 4 species, in which dicotyledos reached 115 species and the number of monocotyled species 17 , there are 4 species of pinopsida class and the number of species with empty classes is 19 (not yet identified). It is known that for the level of plant families in the Garden of Eden 100 of the 155 most dominant species are the Fabaceae family of which 9 are, out of a total of 72 families.

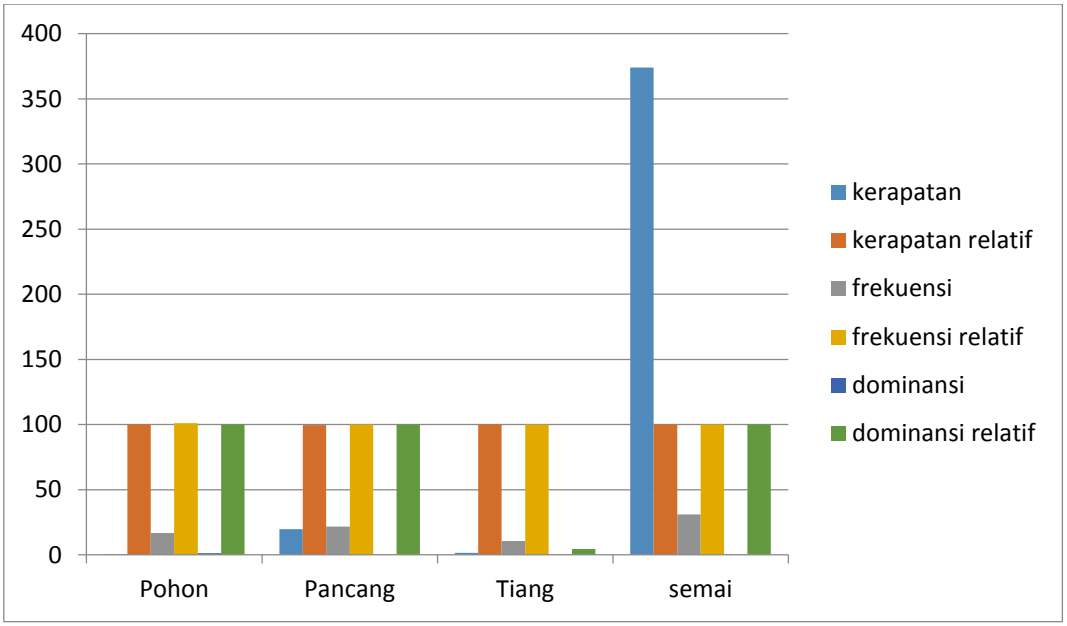

Figure: Graphic Analysis of Plant Biodiversity in 100 Tobasa Garden

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CONCLUSION

1. Data on the level of science process skills of students has increased after using SCL-based green learning. For the criteria of science process skills, students are still lacking in the category of proposing hypotheses a gain value of 0.40 and an institution of 65%, interpreting or grouping the observed data at 70% and interpreting to be at 73% with a sufficient category. The rest are in the good and very good categories. For the lowest science process skills in applying the concept of a gain value of 0.25 and based on observations that students are easier to group if there are MFI guidelines and guidance as well as students do not easily believe if the observational data has not been proven. The hypothesized gain value is 0.40 and the observation sheet hypothesized 65% is categorized as sufficient.
2. Plant data or biodiversity analysis that is obtained as many as 2404 individuals with 155 species on transect pull. The total number of Angyosperms sub-divisions is 132 species (115 dicotyl and 17 species of monocotyl species) and the rest are Gymnosperms and Pteridophyta subdivisions. It is known for the level of plant families in the Garden of Eden 100 of the 155 most dominant species are the Fabaceae family of which 9, out of a total of 72 families.
3. For the categorization of plants, namely categories of trees, saplings, poles and shrubs. For the dominant plant category density is Shrub.
4. Next to 110 species of ornamental plants by export, including several species of endemic plants, rare, orchids.
5. In general, in the process of classification and identification of plants obtained are divided into 6 groups of plant data, namely: (1) Endemic Plants (Batak Typical), (2) Rare Plants, (3) Ornamental Plants, (4) Cultivation Plants, (5)) Nail Plants, (6) Medicinal Plants, (7) and Orchid Plants.

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