

The Effect of Reciprocal Teaching Approach to Student Achievement on Ecosystem Topic in Junior High School

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Abstract - Every teacher wants the learning process that fun and focused on students. Less passion, less active, less focused and always plays are some problems that faced by the school, so that student achievement is decreased and not as expected by the teacher. To achieve the better learning achievement, teachers were trying to apply the reciprocal teaching approach. With the reciprocal teaching approach, the lessons will be more interested and more successful, where as it associated with experiences when the pupils can see, touch, say, do, try, thinking and so on. The study aims to determine the Effect of Application of the Reciprocal Teaching Approach and how much its effect can improve student achievement on the Ecosystem Topic ar Junior High School. This research belongs to an experiment research with control group design. This research used the instrument test which is multiple choice of 20 questions, that the whole matter was valid and reliable. Based on data analysis, average *gain score* in the classroom that is equal to 80,09, while the control class at 69,90. Based on data it is means that H_0 refused and H_1 accepted so there is the effect of reciprocal teaching approach to students achievement.

Keywords: *reciprocal teaching approach, students' learning achievement*

I. INTRODUCTION

Every teacher wants the learning process that is fun and focused on students. Students feel enthusiastic when raised their hand to answer questions or give opinions, cheer celebrate their success, exchange information and encourage each other. According to [9] says that the lessons will be more interested and more successful, where as it associated with experiences when the pupils can see, touch, say, do, try, thinking and so on. The lesson is not only focus on the intellectual domain, but also the emotional domain. The learning excitement can enhance learning outcomes.

The one of technique that has been studied is the using of reciprocal teaching approach. According to [6] says that the reciprocal teaching can teach the students about the essential cognitive skills by create a learning experience, through

specific behaviour modelling and helping students develop those skills for their own effort with encouragement, support and a scaffolding system.

The steps of instructional technique is to create a pre-defined teaching summary material, clarify material that is considered difficult, make questions related to the material, make predictions of the material or presentation. The technique is used with a consideration, is:

1. After initial research, of 38 students rarely read (the impact of smartphone and other advances Science and Technology).
2. Students rarely ask questions and tend to have difficulty in asking questions.
3. Students have difficulty in speaking in front of other or class.
4. Almost the average students do not have a small note about the subject matter or lazy notes and how many other % has no books.

Based on the result of previous studies, such learning technique can improve student competence in the competence of mastering the teaching materials, ask or express opinions and competencies to make presentations in front of the class. Now, the result of research with reciprocal teaching learning technique is being re-tested at the 7th grade of 4th state junior high school of Bendahara to obtain scientifically reliable research results.

II. METHOD

This research was carried out on May 14th until 18th, 2012. This study is located at 4th State Junior High School of Bendahara, Aceh Tamiang years of learning 2011-2012.

The sample of this study is only 2 classes, so that the sample of this study as many as 63 students from the population total of 123 students. As for the random sampling technique, 2 classes of 4 classes that are exist. The selected classes are the VII₂ and VII₃ grade. VII₂ grade is determined as

an experiment class, that is class given reciprocal teaching and VII₂ grade is determined as a control class, it is class given conventional teaching. This study used pre-test-post-test group control design.

III. RESULT AND DISCUSSION

This study uses an instrument of pre-test and post-test given to VII₂ grade students that use reciprocal teaching and VII₃ grade that use conventional teaching. The value is test by using T-test statistic.

List the frequency distribution of VII₂ grade pre-test values (experiments) that use reciprocal teaching

Value	Fi	Xi	xi ²	fi.xi	fi. xi ²
10- 15	2	12,5	156,25	25	312,5
16- 21	3	18,5	342,25	55,5	1026,75
22- 27	6	24,5	600,25	147	3601,5
28- 33	6	30,5	930,25	183	5581,5
34- 39	10	36,5	1332,25	365	13322,5
40- 45	5	42,5	1806,25	212,5	9013,25
Total	32			988	32876

List the frequency distribution of VII₃ grade pre-test values (control) that use conventional teaching

Value	Fi	Xi	xi ²	fi.xi	fi. xi ²
15 - 20	3	17,5	306,25	52,5	918,75
21 - 26	4	23,5	552,25	94	2209
27 - 32	4	29,5	870,25	118	3481
33 - 38	6	35,5	1260,25	213	7561,5
39 - 44	10	41,5	1722,25	415	17222,5
45 - 50	4	47,5	2256,25	190	9025
Total	31			1082,5	40417,75

List the frequency distribution of VII₂ grade post-test values (experiments) that use reciprocal teaching

Value	Fi	Xi	xi ²	fi.xi	fi. xi ²
55 - 61	2	58	3364	116	6728
62 - 68	3	65	4225	195	12675
69 - 75	4	72	5184	288	20736
76 - 82	7	79	6241	553	43687
83 - 89	11	86	7396	946	81356
90 - 96	5	93	8496	465	43245
Total	32			2563	208427

List the frequency distribution of VII₃ grade post-test values (control) that use conventional teaching

Value	Fi	Xi	xi ²	fi.xi	fi. xi ²
45 - 51	2	48	2304	96	4608
52 - 58	3	55	3025	165	9075
59 - 65	6	62	3844	372	23064
66 - 72	4	69	4761	276	19044
73 - 79	10	76	5776	760	57760
80 - 86	6	83	6889	498	41334
Total	31			2167	154885

As for difference of score average of students pre-test and post-test result is as follows:

- In the experiment class students (VII₂) that use reciprocal teaching has a pre-test average score is 30,87 whereas the post-test average score is 80,09.
- In the control class students (VII₃) that use conventional teaching has a pre-test average score is 34,91 whereas the post-test average score is 69,90.

Therefore students are very helpful in learning as to get a good achievement after learning.

IV. CONCLUSION

1. There is influence of reciprocal teaching approach application to student achievement on ecosystem concept at the 7th grade of 4th state junior high school of Bendahara, Aceh Tamiang years of learning 2011/2012.
2. The magnitude of the effect of reciprocal teaching approach application to student achievement on the concept of ecosystem Concept at the 7th grade of 4th state junior high school of Bendahara, Aceh Tamiang years of learning 2011/2012.

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