

INDUCTIVE-DEDUCTIVE APPROACH IN TEACHING ENGLISH GRAMMAR

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ABSTRACT

This experimental study discusses the effectiveness of a combination of inductive and deductive approaches, i.e. inductive-deductive approaches in teaching English grammar to students of English Education Study Program Sriwijaya University. This study also compares the combined approach with both approaches, inductive and deductive, used separately. Samples of 25 students in experimental group, which were taught using inductive-deductive approaches, and 25 students in control group, which are taught using inductive and deductive separately, are taken purposively from the population of 320 students in English Education study Program Sriwijaya University. The pretest-posttest control group design was used in which both group are given same pre-test and post-test but treated differently to see and compare the results. Two instruments were used, a grammar test covering four topics: modals, passive, noun clause and adjective clause, and a questionnaire measuring students' perception toward the approaches. T-test was used to see and compare the result of pre-test and post-test in both groups and post-test in between groups. The result of the questionnaire was analyzed qualitatively. The result in both group shows that there are significant different in between pre-test and post-test, but when post-test from both groups are compared, no significant different is shown. From the finding it is concluded that the inductive-deductive approach is effective in teaching grammar to the students although the result from other approaches are fairly similar. The result of the questionnaire shows that most students expect that inductive-deductive approach is engaged in other grammar classes.

Key words: Teaching, Grammar, Inductive, Deductive

INTRODUCTION

Using Language can be viewed as activity limited by rules. Grammar can be interpreted as a part of the rules that binds the formation of morphology and syntax of a language. More briefly, grammar can be defined as a set of rules that describe how words are used in a language. Wilcox (2004) sees grammar as a system of rules that allow users to create meaning in language by arranging word in a larger structure i.e. sentence. In line with the definition of grammar, Celce-Murcia and

Hiles (1990) states that these rules are part of what are recognized automatically by the native speakers of a language, for example, English grammar is automatically known by a native speaker of English. Teaching grammar is generally aimed at making the language produced by learners of languages, e.g. English, corresponds more closely to the rules of grammar used by native speakers of English.

Grammar teaching, traditionally, can be seen as the presentation and the exercise of the rules of language structure. This is evident from the books of grammar teaching, for example, English grammar

books written by Betty S. Azar. Furthermore, Hedge (2000) explains that there are only two points in the teaching of grammar, namely, teacher presentation and students practice of using grammar. Ellis (2006) explicitly states that this view of the definition of teaching grammar is very narrow and, he defines the teaching of grammar as an activity that involves instructional techniques that can attract students' attention to form grammatically structure so that they can help students to understand the forms metalinguistically and process the structure both in comprehension and production of language, so that in the end, the students will be able to internalize the grammar form. In that definition, not only does Ellis (2006) include the presentation and training as part of the teaching of grammar, but also includes all activities that can help students internalize the grammar itself.

Generally, there are two approaches in teaching grammar, i.e., inductive and deductive approaches. In deductive approach, grammatical structure is presented first, then followed by its use. While in inductive approach, first thing to do is that students are given examples of grammatical structure and then the students conclude the general pattern of the structure. Some studies examined the results of the use of both approaches and they showed mixed results. Herron and Tomosello (1992) found that the inductive approach was more effective. Similarly, Kuder (2009), in a comparative study between inductive and deductive approaches in teaching grammar, found that students taught with inductive approach achieve better results. The opposite result was found by Robinson (1996) and Erlam (2003) that deductive approach was more successful. Different from these findings, Rosa and O'Neill (1999) concluded that there was no difference in the effectiveness of the two approaches.

The combination of the two approaches of teaching grammar (inductive-deductive approach) could be an option for teaching grammar. The combination is expected to maximize the strengths and minimize the weaknesses of each approach. Nunan (2003) argues that a combination of the two approaches is potentially very good in teaching grammar. He also adds that this merger can also help students to understand grammar more deeply, and at the same time, use it more precisely.

This study was conducted to look at the effectiveness of inductive-deductive approach to teaching grammar to students' understanding of English Grammar. This study also tries to see the students' perceptions of the application of inductive-deductive approach.

RESEARCH DESIGN

This study used pretest-posttest control group design in which the experimental group was taught using inductive-deductive approach in teaching grammar while the control group either deductive or inductive approach separately. Learning materials for both groups were the same, only the approach was different. Pretest was given to both groups to see their initial understanding and posttest to see students' understanding after the experiment. To see students' perceptions of the application of inductive-deductive approach, a questionnaire was distributed.

There were two variables investigated in this study, namely the inductive-deductive approach to teaching grammar and the students' understanding of the English grammar. This research was conducted in English Education Study Program Teacher Training and Education Faculty Sriwijaya University. The population was 320 students of the program who took Structure II course in 2015. Since no alteration could be made, two out of four existing classes were taken as samples, 25 students in experimental group and 25 students in control group.

In the teaching of grammar in the experimental group, the following are the steps:

1. Presentation of grammar. This presentation may involve all language skills either separately or integrated,
2. Inference of sentence patterns,
3. Explicit confirmation of the sentence patterns,
4. Exercise of the use of sentence patterns.

The understanding of English grammar will be measured using the Test of English grammar covering 4 advanced grammar topics, namely modals, passive, noun clause, adjective clause. The items were 20, 10, 10 and 15 respectively. The items

were in the forms of cloze, sentence completion and error analysis. T-test will be used to test the hypothesis of the study.

RESULT

The results of the study were reported in three parts: (1) Descriptive statistic, (2) T-test and (3) Questionnaire.

Descriptive Statistics

The mean of pretest for experimental group is 39.20. The distribution of the score shows that more than half (61.11%) is categorized as very poor and none was very good. In control group, the mean was 64.04 and it was more evenly distributed than the experimental group.

In the posttest, the mean for experimental group is 69.80 and was more evenly distributed than in pretest. In the control group, the mean is 77.78. The increase of mean in the experimental group

was far higher than in control group. See Table 1 to see a more complete description of the results.

T-test

Using paired sample T-test, in the first pair, pretest-posttest experimental group, the mean difference was 30.60 with a standard deviation of 14.29. T value is 9.08 with a significance level (2-tailed).000. This means that there is a significant mean difference between pretest and posttest results of experimental group.

In the second pair, pretest-posttest control group, the mean difference was 13.74 with a standard deviation of 14.43. T value is 4.04 with significance level (2-tailed).001. This shows that there is a significant mean difference between the results of pretest and posttest control group.

With independent sample test assuming that the two groups had a similar variation, the mean difference between the groups in posttest was 4.389 with significance level.158. It can be concluded that

Table 1. Result of Grammar Test

	%	Mean	SD	Max	Min
Pre-Test Experimental		39,20	18,78	9	78
very poor (0-40)	61,11%	27,60	10,31	9	40
poor (41-60)	22,22%	47,27	4,69	42	53
fair (61-70)	5,56%	63,64	-	64	64
good (71-80)	11,11%	74,59	5,08	71	78
Very good (>80)		-	-	-	-
Pre-Test control		64,04	21,98	22	96
very poor (0-40)	16,67%	29,70	8,20	22	38
poor (41-60)	33,33%	53,64	6,16	42	58
fair (61-70)	5,56%	69,09	.	69	69
good (71-80)	11,11%	72,73	2,57	71	75
Very good (>80)	33,33%	87,88	4,70	84	96
Post-Test Experimental		69,80	17,17	38	95
very poor (0-40)		-	-	-	-
poor (41-60)	22,22%	43,64	4,69	38	49
fair (61-70)	27,78%	65,82	2,70	62	69
good (71-80)	16,67%	75,76	2,78	73	78
Very good (>80)	33,33%	87,58	4,05	84	95
Post-Test control		77,78	16,00	47	100
very poor (0-40)	-	-	-	-	-
poor (41-60)	16,67%	50,30	3,80	47	55
fair (61-70)	11,11%	65,46	5,14	62	69
good (71-80)	22,22%	75,91	3,44	71	78
Very good (>80)	50,00%	90,51	5,28	84	100

there is no significant difference between posttest in experimental group and in control group.

Questionnaire

The questionnaire was used to see students' perception toward the application of inductive-deductive approach. The results indicate that most students feel that they understand the material better compared to previous structure class and they want the same approach is used in the next structure class. Furthermore it is shown the learning module provided was taught as helpful for their understanding and they expect to be taught in the more advanced grammar class in the same way. The result is described in more detail in Table 2.

DISCUSSIONS

Several points need to be discussed based on the results. First, from the paired-sample T test, it was found out that there was a significant mean difference between pretest and posttest results of experimental groups with a very big range. When the distribution of the value of the pretest and posttest in the experimental group were compared, there was an increase in very good category and a decrease in very poor category. Student perceptions questionnaire results also show that the students

feel that their understanding of the learning material on this course became better. These indicate that the inductive-deductive approach to grammar teaching gave substantial effect on the students' understanding. This is in line with what is proposed by Nunan (2003), and Ana and Ratminingsih (2012), that a combination of deductive and inductive approach is very useful in teaching grammar.

Second, paired sample T test results on the pretest and posttest for the control group showed that there was significant mean difference. This shows that either deductive or inductive approach separately also has the effect to increase student understanding. Previous studies on the application of the deductive or inductive approach also showed a similar effect (Seliger, 1975; Robinson 1996; Erlams 2003 and Chalifa, 2013).

Third, although the results of independent samples T test between posttest experimental group and the control group showed no significant mean difference, but if the mean difference between pretest-posttest results of the experimental group (30.60) and control group (13.74), there is a very big difference between the results of the two groups. When observed further, it was found that, the result of pretest the experimental group (39.20) is

Tabel 2. Questionnaire Item Response

Item	Very large extent	Large extent	Moderate extent	Small extent	Not at all	Average
1. I understand the teaching and learning material in Structure II class better than I understand the previous structure class teaching and learning material	6,67%	33,33%	0	0	0	4,67
2. I would like to study the teaching and learning materials in more advanced structure class in the same way as it was done in Structure II class	28%	61%	11%	0	0	4,12
3. The learning module provided in Structure II class helped me understand the material better.	50%	39%	11%	0	0	4,39
4. I would like to study independently in more advanced class using similar module used in Structure II class.	28%	61%	11%	0	0	4,12

much lower than the pretest control group (64.04); and also the posttest experimental group (69.80) is almost equal to the posttest control group (77.78). This shows that there is a strong probability that the understanding of students in the experimental group increases far greater than in the control group, although in the end, the score of posttest control group was higher than of the experimental group. This trend could mean that if the inductive-deductive approach is applied to the control group, there will be a strong possibility that the scores on posttest control group will be much better. This trend is supported by the findings from the questionnaire that almost all students think inductive-deductive approach helps them understand the material better.

Fourth, in the application of inductive-deductive approach several problems were encountered. One of them is the difference in students initial understanding of grammar material in Experimental and control group. Control group shows a much higher understanding. This problem affected the result of pretest score of experimental group was much lower than the control group. The experimental group also faced a higher difficulty level in understanding the material. This difference was probably caused by the inability to random the students in both groups. If the combining were possible, the score distribution in both group would be similar and as a result, the study possibly could show a more clear result that inductive-deductive approach helps students understand grammar better than other approaches. The other problem is that the students are not accustomed to inductive-deductive approach, especially in experimental group. Inductive phase of the approach took most of the teaching and learning time, and as a result the deductive phase was not optimally done. Fortunately, this problem only happened in several initial meetings.

CONCLUSIONS AND RECOMMENDATIONS

From the previous discussion a number of conclusions can be drawn. Teaching grammar with inductive-deductive approach can significantly improve students' understanding of grammar. In

addition, although there is no significant difference between the results of teaching grammar with inductive-deductive approach, the result progress from the pretest and posttest in the experimental group suggests that this approach is more effective in helping students to understand grammar than inductive and deductive approach separately. Based on the conclusion, it is recommended that English teachers apply inductive-deductive approach in their grammar class. It is also recommended that other researchers do similar research with a more evenly distributed initial understanding to get a more definite conclusions.

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BIODATA

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