IMPROVING THE ELEVENTH GRADE STUDENTS'ABILITY IN WRITING SIMPLE CAUSE EFFECT SENTENCES THROUGH FLOW CHART

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Abstract

This research aimed to improve the ability of the eleventh grade students of SMA Negeri 5 Palu in writing simple cause and effect sentences through flow chart. The research usedtrue experimental research design. The population was the eleventh grade science major students and the sample was two parallel classes consisting 52 students. The data were collected through observation and tests: pre test and post test. The observation was conducted to get a picture of teaching and learning process in the classroom while the pre test and post test were used to find out the improvement of the students' writing ability before and after the treatment. Based on the result of pre test and post test, the research found that the t-counted was 5.967. By applying 0.05 level of significance and the 27+25-2=50 degree of freedom through interpolation formula, it was found that t-table was 0.01. It showed that t-counted was higher than the t-table. In the other words, flow chart is effective to improve the ability of the eleventh grade students in writing simple cause and effect sentences.

Keywords: Improving; Writing Ability; Sentence; Cause effect; Flow Chart.

INTRODUCTION

Writing is a skill to express ideas, thoughts, and memories into written form, either in the form of sentence, paragraph, or essay which needs some practice done step by step. As a language skill, writing requires knowledge on language components such as vocabulary, grammar, and other language skills. Writing can be done effectively through writing sentences, paragraphs, or essay. The writing is also done by any student who learns English at some levels of school in Indonesia. Galko (2002) asserts that writing is a lifelong skill used in school, at

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work, and in our personal life. By writing, the students learn the process of expressing ideas, opinions, feelings, and organize them in simple sentences or paragraphs as well.

In the context of learning English, writing seems to be more difficult for the students to acquire than those of other language skills. Writing is a complex process of transferring ideas, feelings, and thoughts into written form by giving more attention on the use of language as correctly as possible. Writing is an essential tool for learning a discipline and helping students improve their writing skill. Dietsch (2009) states that writing is the art of discovery. Rhetoric, the art of writing effectively implies study and practice. For many students, getting started is the hardest part in writing. They have to maintain ideas concerning with their writing task. For example in writing sentence, the students need to get ideas before starting to write. Also, they need to get concerned with making an effective sentence.

In the fact, most students who are considered in the eleventh grade ofSenior High School still have problem in writing especially in getting the ideas and writing it into effective sentences. They get lack of idea or limited knowledge about something that they want to write. They do not know how to start the sentences. These problems may stop their desire and even their enthusiasm to keep trying in writing. One way to develop effective sentences is by stating an effect or cause and reasoning how or why the effect or the cause occurs (Karim and Rachmadie, 1996). The details of cause and effect sentences explain or demonstrate how one event or set of circumstances leads to, or causes, another event. Therefore, the ideas in writing cause and effect sentences must flow in logical sentence that link up so the readers are not conscious of gaps.

In relation to these, some strategies may be used for the students to quickly get many ideas as they can and save their time for the later stages in the process of writing. Students may use brainstorming, mapping, listing, or flow chart. These strategies include as graphic organizers. Thompson (2004) explains that graphic organizers help students comprehend information through visual representation of ideas or relationships. Graphic organizers turn the abstract concepts into concrete visual representation.

One possible strategy that can be chosen to activate the students' ideas or their prior knowledge before writing sentences is by using chart. Galko (2002) confirms that using chart is grouping your ideas visually in charts or tables. Like word maps or webs, chart is a way to

group students' ideas visually. There are five types of charts the students may use. Those are pro and con chart, five sense chart, comparison and contrast charts, time line, and flow chart.

Flow chart is a part of writing process that can help the students to write. Flow charting aims at getting out students' ideas or thought and feeling relates to the topic by drawing it into flow chart diagram. Flow chart is similar to cluster mapping in which shows relationships between ideas. However, flow chart is most effective in examining cause and effect relationships. Flow chart is to show the steps in a process (Galko, 2002). Flow chart is a type of diagram that represents process or situation. The flow chart symbols linked together with arrows in which showing the process of flow direction. The flow chart should be neat, clear, and easy to follow. There should not be any room for ambiguity in understanding the flow chart.

The idea that one action causes another event to happen is one of the crucial thing for the students to learn. The ability to relate causes to effects enable them to understand what happened and why it happened, and also to analyze what is happening in the world around them. The example of how flow chart technique can help students to understand and write cause and effect sentences has seen in Figure 1 and Figure 2.

Figure 1:Flow chart

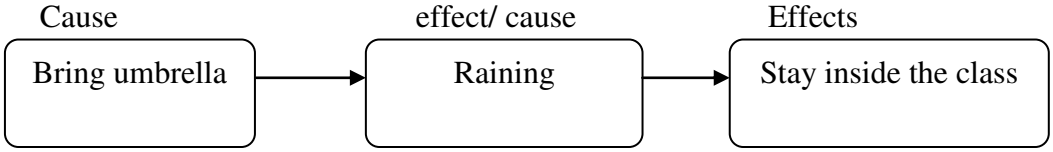

Figure 2: Cause and effect sentences

1. I bring my umbrella because it is raining.
2. It is raining outside, so I stay inside the classroom.

Based on the statements above, this research was conducted on improving the ability of the eleventh grade students of SMA Negeri 5 Palu in writing simple cause and effect sentences through flow chart. Flow chart can be an effective technique for the students to get many ideas as it can help the students become easier in writing cause and effect sentences. Moreover, flow chart provides not only new way in writing the sentences but also in making the students feel interested and enjoyable during the English teaching and learning process.

METHODOLOGY

True experimental research design was used in this research. In this case, there were two groups involved; experimental group and control group. The treatment was administered only for the experimental group while the control group was not. The same pre test and post test were distributed to these both groups. The design of the true experimental research was presented below (Avy, Chester, and Razaveh, 2002).

Group	Pretest	Treatment	Posttest
Exp. Group	Y_1	X	Y_2
Contr. Group	Y_1		Y_2

Where:
Y_1: pretest
X: treatment
Y_2: posttest

The population of this research was the eleventh grade science major students of SMA Negeri 5 Palu. Cresswell (2002) states that population is a group of individuals who have the same characteristics.The population consisted of four parallel classes. The total numbers were 105 students.By applying cluster random sampling to decide the sample of this research, it was found that the first dropped out paper was XI IPA 2 as the experimental group and the second dropped out paper was XI IPA 4 as the control group.

This research has two variables;independent and dependent. The independent variable was flow chart, while the dependent variable was improving the ability of the eleventh grade students in writing simple cause and effect sentences.

In relation to these, there were two kinds of research instruments to collect the data, they were observation and test. The observation was used to describe the condition in the classroom during the teaching and learning process. Then the test was used to measure the students' ability in writing simple cause and effect sentences before and after the treatment.

As stated earlier, the tests;pretest and posttest were distributed in this research. The pre-test was given to the students to find out how far the students' writing ability when the treatment had not been given yet. The treatment was given in eight meetings. In each meeting, the students were taught how to apply flow chart and write simple cause and effect sentences. In scoring the sentences, this research used scoring system adapted from KTSP (2006) as in Table 1.

Table 1: Scoring system

No	Items	Score
1.	Every correct grammar, vocabulary, punctuation, and capitalization.	5
2.	Every correct grammar, vocabulary, and punctuation, but incorrect capitalization.	4
3.	Every correct grammar, vocabulary, but incorrect punctuation and capitalization.	3
4.	Every correct grammar, but incorrect vocabulary, punctuation, and capitalization.	2
5.	Every incorrect grammar, vocabulary, punctuation, and capitalization.	1
6.	Every unanswered item	0

In the eighth meeting, the posttest was administered after treatment. The aim was to measure the students' ability in writing simple cause and effect sentences after getting the treatment. In addition, it was given to know the effectiveness of the technique in the treatment.

Next, the individual score was computed by using formula designed by Purwanto (1991) as follows: $$\boldsymbol{Np = \frac{R}{SM} \times 10}$$

Where:
Np= individual score
R = raw score
SM=maximum score

Then, the students' mean score was calculated by using formula as proposed by Sukardi (2009) as follows:$$\boldsymbol{M = \frac{\sum x}{N}}$$

Where:
M = mean score
$\sum x$ = the sum of individual score
N = the number of students

Finally, to know if there was a significant difference in the results of pretest and posttest, the result of the mean score and the square deviation was computed by using the formula proposed by Arikunto (2006).

$$\mathbf{t} = \frac{\boldsymbol{Mx - My}}{\sqrt{\left(\frac{\sum \boldsymbol{x^2 d} + \sum \boldsymbol{y^2 d}}{\boldsymbol{Nx + Ny - 2}}\right)\left(\frac{\mathbf{1}}{\boldsymbol{Nx}} + \frac{\mathbf{1}}{\boldsymbol{Ny}}\right)}}$$

where:

t = the value of the test
Mx = the mean of experimental group
My = the mean of control group
x = square deviation score of x_2 and x_1
y = square deviation score of y2 and y1
Nx = the number of subject of experimental group
Ny = the number of subject of control group

FINDINGS

In this research, the data were analyzed descriptively and statistically. The observation was analyzed descriptivelywhile the data from the pretest and posttest were analyzed statistically.The observation was done in the experimental group (XI IPA 2) to get the picture of the condition of the class during the teaching and learning process. It included the students' responses and the teacher's way in presenting the teaching materials. Based on the observation, generally the pre activities run very well. It was depicted from the students' enthusiasm, attention, and interest in answering the teacher's preview questions.

Next, in while activities, it was found that the students' behavior was interfered by the situation in the class because both experimental and control group started the English lesson at 12.30 p.m. and finished at 02.00 p.m. That was the last lesson they had to take in that day. The students' behavior of taking too noisy, discussing the task loudly, and often walking around the class, indicated that at noon the students started to get tired and sleepy. They wanted the teacher to finish the class soon. Teaching English at noon or almost at the end of their day time school was a big challenge for the teacher. The teacher needed an extra creativity to create an interesting class so the students could keep their enthusiasm during the while activities.

Last, in post activities, it was concluded that even though the students were too noisy but at the end of the class they could complete and submit their task to the teacher. Furthermore, the students could conclude the material given clearly. It showed that during the lesson, they have a good attention in understanding the material. To sum up, the teacher who motivated the students and they prayed together before going home confirmed that there was a good character building created in the teaching and learning process.

After conducting the observation, the pretest was administered to know the students' ability in writing simple cause and effect sentences and posttest was given after the treatment to know the students' achievement after getting the treatment.

The pretest in the control group was administered to the students on November 7th 2013. The students' mean score of control group in pretest was calculated by dividing the sum of students' standard score (76.5) with the total number of the students (25). In the result, the mean score of the control group in pretest was 3.06.

Then, the posttest in control group was given to the students on November 30th 2013. By dividing the sum of students' standard score (133) with the number of students (25), it was found that the mean score of the control group in posttest was 5.32.

Furthermore, the deviation and the square deviation of the control group were computed. After getting the deviation and the square deviation of the control group, the mean deviation of control group was calculated. By dividing the sum of deviation score (56.5) with the total number of the students (25), the mean deviation of control group was **2.26**. After that, the sum of squared deviation was computed. After calculated the sum of squared deviation around the mean deviation score of the control group, it was found that the sum of squared deviation in control group was **54.06**. The result of pretest standard score, posttest standard score, deviation, and the square deviation of control group was seen in Table 2.

Table 2: The Deviation and The Square Deviation of Pretest and Posttest of The Control Group

No	Name	Pretest (Y^1)		Posttest (Y^2)		Y^2-Y^1	Y^2
		Raw score	Standard score	Raw score	Standard score	(Y)	
1	AS	2	1	8	4	3	9
2	AD	6	3	7	3.5	0.5	0.25
3	LG	9	4.5	13	6.5	2	4
4	MF	6	3	10	5	2	4
5	MH	6	3	8	4	1	1
6	MN	8	4	10	5	1	1
7	SA	7	3.5	8	4	0.5	0.25
8	AA	4	2	9	4.5	2.5	6.25
9	AR	4	2	11	5.5	3.5	12.25
10	BS	10	5	9	4.5	-0.5	0.25
11	DG	3	1.5	12	6	4.5	20.25
12	DF	6	3	16	8	5	25
13	EK	5	2.5	14	7	4.5	20.25
14	IM	5	2.5	13	6.5	4	16
15	IF	7	3.5	9	4.5	1	1
16	NA	4	2	9	4.5	2.5	6.25
17	NB	6	3	12	6	3	9
18	MB	6	3	12	6	3	9
19	RA	7	3.5	10	5	1.5	2.25
20	SL	7	3.5	9	4.5	1	1
21	SG	8	4	11	5.5	1.5	2.25
22	YK	5	2.5	11	5.5	3	9
23	WW	7	3.5	11	5.5	2	2
24	WP	7	3.5	16	8	4.5	20.25
25	MA	8	4	8	4	0	0
	Total	**153**	**76.5**	**266**	**133**	**56.5**	**181.75**

Next, the pretest in experimental group was conducted on November 11th 2013. After getting the total standard score of the students, the students' mean score of the experimental group in the pretest was computed. To gather the mean score, the sum of the students' standard score (81.5) was divided by the total number of the students (27). In the result the mean score of the experimental group in pretest was 3.01.

Then, the posttest in experimental group was conducted on December 3rd 2013. By applying the same formula, the mean score of the experimental group in posttest was gathered. The sum of students' standard score (191) was divided by the total number of the students (27). Therefore, the mean score of the experimental group in posttest was 7.07.

Furthermore, the deviation and the square deviation of the experimental group were calculated in this research. After getting the deviation and the square deviation of the experimental group, then the mean deviation of experimental group was computed. To gather the mean deviation of the experimental group, the sum of deviation score (109.5) was divided by the total number of the students (27). Thus, the mean deviation of experimental group was **4.05**.

After that, the sum of squared deviation in experimental group was calculated. After calculated the sum of squared deviation around the mean deviation score of the experimental group, it was found that the sum of squared deviation in experimental group was **11.17**. The result of pretest standard score, posttest standard score, deviation, and the square deviation of experimental group was displayed in Table 3.

Table 3: The Deviation and The Square Deviation of Pretest and Posttest of The Experimental Group

No	Name	Pretest (X^1)		Posttest (X^2)		X^2-X^1	X^2
		Raw score	Standard score	Raw score	Standard Score	(X)	
1	AA	5	2.5	17	8.5	6	12
2	AG	10	5	17	8.5	3.5	12.25
3	AW	6	3	14	7	4	16
4	DZ	9	4.5	15	7.5	3	9
5	HS	8	4	17	8.5	4.5	20.25
6	IS	7	3.5	17	8.5	5	25
7	JA	3	1.5	12	6	4.5	20.25
8	KH	6	3	16	8	5	25
9	FA	4	2	12	6	4	16
10	FP	7	3.5	12	6	2.5	6.25
11	FS	2	1	15	7.5	6.5	42.25
12	MG	8	4	16	8	4	16
13	MI	8	4	15	7.5	3.5	12.25
14	MR	2	1	12	6	5	25
15	MA	10	5	16	8	3	9
16	NL	4	2	17	8.5	6.5	42.25
17	NS	5	2.5	8	4	1.5	2.25
18	RW	6	3	13	6.5	3.5	12.25
19	RD	9	4.5	17	8.5	4	16
20	RS	4	2	12	6	4	16
21	RA	4	2	12	6	4	16
22	RM	5	2.5	15	7.5	5	25
23	TF	7	3.5	13	6.5	3	9
24	YR	3	1.5	11	5.5	4	16
25	YM	6	3	12	6	3	9
26	YN	6	3	12	6	3	9
27	PN	9	4.5	17	8.5	4	16
	Total	**163**	**81.5**	**382**	**191**	**109.5**	**455.25**

The last step, the data was analyzed statistically in order to see the significant difference between the pretest and posttest by using t-test formula. Finally, it was found that the t-counted was **5.967**. By applying 0.05 level of significance and the 27+25-2=50 degree of freedom through interpolation formula, it was found that t-table was 0.01. Based on these computations, itshowed that t-counted was higher than the t-table. In the other words, flow chart is effective to improve the ability of the eleventh grade students in writing simple cause and effect sentences.

DISCUSSION

The research was conducted in SMA Negeri 5 Palu. In collecting the data, observation and test were used. In this part, the students' ability before treatment was compared with their ability after getting the treatment by using flow chart as a technique to guide them in writing simple cause and effect sentences.

First of all, the observation was done in experimental class before conducting the test. Based on the observation result, it was pointed out that the whole activities starting from pre, while, and post activities run very well. It was described from the students' interest, attention, and enthusiasm in starting the English lesson. In while activities, although the students got many obstacles in doing the task, but at the end of the class the students could finish and submit their task to the teacher. In post activities, the students could conclude the material clearly. It showed that they had a good understanding about the material during the teaching and learning process. Also the teacher who motivated the students and they prayed together before going home confirmed that there was a good character building created in the teaching and learning process.

After doing the observation, the pretest was distributed to the both groups in experimental and control group. The standard at school was 70. Based on the pretest result in experimental group, none of the students could get equal or higher score than the standard score. The result of the pretest in experimental and control group had the same ability in cause and effect sentence. That was shown by mean scores of each group. The experimental group got 3.01 and the control one obtained 3.06. Both of the groups made many mistakes in writing cause effect sentences before treatment. In addition, some grammatical errors were also found in their cause effect sentences. For instance in pretest, they wrote *my favorite food is manisan because it taste sweet*.

Next, the treatment then was administered to the experimental group by using flow chart technique. In applying the treatment the students were explained what flow chart was and how this technique was applied. When the example was given in flow chart, the students were so interested and enthusiastic in learning process. They were so enthusiastic to mention words or phrases coming from their mind. Then the students were asked to make cause effect sentence by using words or phrases from the flow chart. In the process, the students were so active to finish the task, they asked the writer the vocabulary they did not know, told their friend around

the material, and walked around the class to borrow dictionary. After finishing the task, the students then submitted it to the writer.

Posttest was conducted after the treatment given to show progress in writing. Based on the posttest result in experimental group, there were 15 students who got the equal or higher score than the standard score. In other words, the improvement of the percentage in posttest was 55.55%. When the students tried to write sentence in pretest, they have lack of idea to write. However, in posttest, they wrote some ideas that related to the topic. In addition, they had lack of knowledge and vocabulary in pretest. While in posttest, they wrote some related words in writing cause and effect sentence.

The effectiveness of flow chart has been proved by many studies. The first study from Hadi (2009) showed that the use of the combination between VCD media and flow chart had a significant effectiveness to improve the students' performance in SMP. Also, a study from Santoso (2011) found that 'media gambar seri (Flow Chart)' improved the students' writing skill in each cycle of classroom action research in SD. In relation to these, it was stated that the result in this research supported the result from relevant studies. It asserted that flow chart could improve students' performance in learning by turned abstract concept into concrete visual representation. In this research, the students would have a chance to get many ideas before starting to write sentence. Flow chart produced learning effects that were substantial and long lasting.

Moreover, it was found that the students are motivated to improve their knowledge in learning English. They finished their task faster and they looked more confident in doing writing than before. It was proved by their participation and activeness during the treatment. It became one of important facts that were influenced the success of this research. Also, the students were interested in filling the flow chart. Finally, it was concluded that through flow chart technique, the students' abilities in writing simple cause and effect sentence were improved. The flow chart technique guided them to get many ideas about the topic.

CONCLUSIONS AND SUGGESTIONS

Based on the research result, the value of $t_{counted}$ (5.967) is higher than the value of t_{table} (0.01), it is proven that the writer hypothesis (Ha) is accepted, that the ability of the eleventh

grade students of SMA Negeri 5 Palu in writing simple cause and effect sentence can be improved through flow chart.

Flow chart technique can motivate them in learning English well, especially in writing simple cause and effect sentence. It is proved by looking at their participation and enthusiastic during the treatment conducted. Flow chart technique helps the students to get many ideas and find the appropriate vocabulary.

Based on the conclusions above, suggestions were given for the improvement of teaching and learning writing especially writing simple cause and effect sentences for the students, the English teacher, and other researchers.

First, the students should be given more exercise concerning about writing material especially about learning the grammar, vocabulary, mechanic, and punctuation. Furthermore, they will have more chance in practicing their ability to write well. Also, the students need to learn how to use flow chart technique in learning English. It would help them to get many ideas and motivate them in learning English as well.

Next, it is suggested for the English teacher to provide an interesting learning process especially in writing, so that the students can feel more enjoyable during the teaching and learning process. Moreover, the English teacher can useflow chart as one of the alternative technique in getting many ideas before the students starting to write.

Last, for the other researchers, initially they are suggested to observe the students' difficulties in learning English before doing the research in the school.It will help them to find out the appropriate technique to help the students in solving their problem.

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