
THE EFFECT OF CORNELL NOTE TAKING METHOD ON STUDENTS' GRAMMAR LEARNING AT MAN 1 KENDARI

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ABSTRACT

This study was intended to investigate the effect of Cornell note taking method on the 11th grade students' grammar learning at MAN 1 Kendari. The research question of this study was "Is there any significant effect of Cornell note taking method instruction on students' grammar learning at class XI of MAN 1 Kendari?". The scope of the study revolved around the students in 11th grade of MAN 1 Kendari and Grammar courses. The samples of this study were from class XI IPS 2 as control class and XI IPS 3 as experimental class; there are 20 students from each class. This study was a quantitative study that employed two-group) posttest-only design with Cornell note taking method as independent variable and students' grammar learning as dependent variable. The data was collected through a grammar test with 35 items of questions. The data of this study was analyzed by using SPSS 16.0. The result showed that there was 2.80200 score difference between both classes with control class obtained 3.92 and experimental class achieved 6.72. The data obtained via Independent Sample T-test presented the p value was .000. Thus, because the p value indicated that Sig. < α (0.05), it showed that H_0 was rejected and H_1 was accepted. Moreover, the calculated effect size, $r = 0.6$, was categorized as large. Therefore, it could be concluded that Cornell note taking method had worked well and carried a large effect on improving students' grammar learning at class XI IPS 3 of MAN 1 Kendari.

1. Introduction

Rowntree (1976) defined note taking as an important learning process as students encode the given information whether it comes from reading or listening activity. Most students as well think note taking is important in their learning process. Research from Palmatier and Bennett (1974) shows that 99% college students takes note during lectures and Dunkel and Davy's (1989) shows that among the participant in their studies, 94% consider note taking as a prominent tool of understanding the content of lecture. However, Bonnie (1993) noted Kiewra's (1985) summary of research that even the students who takes good notes fail to note the important ideas of the lecture. Students cover 40% of lecture content which is the cause of the incompleteness; nonetheless, students who take notes perform better than the non-takers (Kiewra, 1991). The incompleteness of information in students' note leads attention on changing style from a traditional to a more strategic note taking.

One of those strategic note takings is Cornell note taking method, which is a method that is adopted to increase achievement score and effective for recalling or retrieving information (Akintunde, 2013). This note taking method also requires students to organize their notes systematically and to paraphrase the content into their own words. According to constructivism theory, Jonassen's (1991), as noted by Ertmer and Newby (1993), learning occurs when "mind filters input from the real world to produce its own unique world". Students are able to remember the lesson when they can understand it. By paraphrasing or encoding process students will be able to produce the knowledge based on their own understanding. Moreover, the summary step is also required students to draw conclusion of the material, in which will conclude the lesson into some shorter and less complicated sentences. Cornell note taking method's systematical processes do not only apply on the format of the note taking itself, but also on the steps from taking note to reviewing it. The more systemic the process is, the better the quality will be (Winkel, 2014). The 2nd grade students of MAN 1 Kendari were learning the lesson about texts while also expected to at least understand the use of common grammar rules used in the texts such as Past Tense, Present Tense, and so on. This will burden the students unless they have an aid to help them remember and recall the lesson. Cornell note taking method has everything to support easing students' burden in this matter. Therefore, the researcher believes that Cornell note taking method can allow students to gain a better improvement in their grammar learning.

Davoudi, Moattarian, and Zareian (2015) conducted a research concerning the effect of Cornell note taking method instruction on students' grammar learning. The result showed that the experimental group did well than the control group. However, a pre observation that was conducted towards 2nd grade students at MAN 1 Kendari showed that the students did not practice any strategic note taking in any of their notes. They were taking note conventionally because the students are not taught on how to take notes effectively. Moreover, in grammar learning, Baddeley (1986;1997), in Macaro and Masterman (2006), noted that the reason why some students even though has been taught grammar explicitly still fail in grammar task was because the limitation in attention and short-term memory, in which emphasizes the need of effective note taking in students' learning. Thus, this gap

motivates the researcher to conduct a study to find out the effect of the Cornell note taking method on students' grammar learning at class XI of MAN 1 Kendari.

This study intended to answer the question "Is there any significant effect of using Cornell note taking method on students' grammar learning at class XI of MAN 1 Kendari?". Thus, this study's aim was to find out the effect of Cornell note taking method on students' grammar learning at MAN 1 Kendari class XI.

This study was expected to have academic and practical contribution. Academically, this study could be used as a relevant and valid reference for teachers to improve their students' grammar learning in the classroom and for students to relate their study to and to increase their knowledge. Practically, this study could be used; first, to help students to overcome the problem they face when the material is presented in lecture format or group discussion at Grammar course. Second, to motivate students to switch from conventional note taking to strategic note taking that has more benefits for their learning.

This study was limited into only one class and the participants are only the students in the 11th grade of MAN 1 Kendari. This study focused on the students' grammar learning after using Cornell note taking method, proposed by Pauk (2001), compared to the students who take notes by their own style in grammar learning. The lessons that were presented in the classroom during treatment were about Simple Present Tense, Simple Past Tense, Imperative sentence (giving instruction), and Passive Voice.

2. Literature Review

Tale and Goodarzi (2015) defined grammar as a necessary component in language teaching and learning. Grammar refers to a set of principles and structure that form a language. The basic after the basic that is vocabulary is grammar. After compiling words of the target language into memory a speaker will then need the set of rules on how to appropriately applying these words into a sentence. The set of rules will dictate the construction of the words in a meaningfully tool that can be used as communication; understood by the listener or reader, in which the speaker or writer's ideas is conveyed correctly. In other words, grammar is simply a necessary aspect in how a language works.

Learning grammar means the information is regarding a set of rules that applies in the target language. The information is expected to be conveyed properly and appropriately so the students will not miss or misunderstand any part of the language rules. Besides that, the grammatical knowledge needs to be stored in long-term memory so it is easier for the students to recall the knowledge whenever they need it. Although teachers have tried their best, but students are also required to improve themselves so there is an effort from both teacher and student in learning grammar. One of the improvements is by improving their note taking skills and that is by using an effective note taking that helps them to record information effectively.

Cornell note taking method first developed in 1974 by Dr. Walter Pauk (Pauk, 2001), who was a professor of Cornell University. It is mostly used to improve students' notes organization because of the systematic practice of recording and reviewing notes. This method requires students to divide their paper by drawing columns. These columns emphasize the advantage of Cornell note taking as an organizational note taking. With steps as follow:

1. Record : Students retain information of the lecture in the right column. It can be fill whether with an outline, paragraph or even diagram or illustration that provided by lecturer.

2. Reduce : This stage is done after class. The students relearn the notes they have written and extract key words from the right side and write it down in the left side with clear line which sentences the key words refer to. Besides the key words, students also make questions that the answer can be found in the information in the right column.

3. Recite : Students cover the notes in the right column and then start reciting the information by looking at the cue words or answering the questions in the left column. The students utter the information in their own words.

4. Reflect : In this stage the students take a rest for a while. After the rest, they start pondering about the notes and why the notes are important for them, reread the notes again, and generalize the information in the right column to draw conclusion. This stage is where the students fill the summary column.

5. Review : Students take ten minutes of their time every week to review the notes they have written. This stage of repetition is expected to keep the information in the long term memory fresh and lessen the chance of forgetting the information.

In note taking, students might encountered difficulties such as the difficulties to combine comprehension and the production, balancing writing and listening, and adding some detail information on the note (Quintus et al., 2012). However, with the right technique, the difficulties would not matter, instead students would gain advantage from note taking activity such as extending their attention span (Rowntree, 1976), recalling information better (Kesselman-Turkel and Peterson, 2003), organizing ideas better and easily (Kesselaman-Turkel and Petterson, 1982).

Jacobs (2008) found that Cornell instruction were able to answer higher level question than the other group. Akintunde (2013) in his study concerning the comparison between the effect of three note taking strategy; Cornell, Verbatim, and Outline note taking, found that Cornell is the most effective in the matter of information recall among the other two methods. Davoudi, Moattarian, and Zareian (2015) concluded that Cornell note taking method allow students to be able to overcome their note taking difficulty and achieve more grammatical knowledge. All researchers regarding Cornell note taking method reported that this method could help students to overcome the difficulties of note taking, and increase students' achievement and gain grammatical knowledge.

3. Methodology

This research was a quantitative research and employed a type of true experimental design, a two-group posttest-only design. Two-group posttest-only design employed two groups which consisted of control group and experimental group and only administered posttest among the group to collect the data after the treatment. Via probability random sampling, two classes were classified as control group (XI IPS 2) and experimental group (XI IPS 3), each of the class had 20 students.

The instrument of this study were two sheets of Cornell note taking instruction and its example, and 35 items of grammar test regarding simple present

tense, simple past tense, passive voice, and imperative sentences. In this study, control group only used conventional note taking without influence of any outside technique other than their own style, while the experimental group used Cornell note taking method in their note taking activity. Before starting the treatment, the researcher introduced the method to students of experimental group and let them learn how to use it. The treatment took 4 weeks and, after that, the posttest was administered to both groups. Then the data was analyzed via SPSS.

4. Findings

The calculated data of the posttest score presented the result below.

Table 1. The Classification of Students' Achievement of Post-test on Control Class

No.	Classification	Score Level	Frequency	Percentage (%)
1	Very Good	8 - 10	-	-
2	Good	6.6 - 7.9	-	-
3	Fair	5.6 - 6.5	4	20%
4	Poor	4 - 5.5	7	35%
5	Very Poor	0 - 3.9	9	45%
Σ			20	100%

The table above displayed that 80% students in control class had gotten very poor scores in the test. Added with those in the poor level, 80% students in the control class gained scores below Fair level. 80% was about 16 out of 20 students. Meanwhile, in the Fair level, 20% students achieved scores classified in those levels. Those 20% was about 4 out of 20 students in the class. Most of the students (80%) in control class obtained scores below the acceptable level (Fair: 5.6 - 6.5). Thus, it made only 20% or 4 students in the control class achieved acceptable score in the test (Fair: 5.6 - 6.5).

Table 2. The Classification of Students' Achievement of Post-test on Experimental Class

No.	Classification	Score Level	Frequency	Percentage (%)
1	Very Good	8 - 10	2	10%
2	Good	6.6 - 7.9	8	40%
3	Fair	5.6 - 6.5	7	35%
4	Poor	4 - 5.5	3	15%
5	Very Poor	0 - 3.9	0	0%
Σ			20	100%

The table above showed that 0% and 15% of the students' score were included in Poor and Very Poor level. This made it 15% students in experimental class had gotten score below the Fair level. It was about 3 out of 20 students. The rest of the students achieved scores that are classified in Very Good, Good, and Fair level. There were 10%, 40%, and 35% students in those levels. If the percentages were summed, it equaled with 85%. This 85% was about 17 students, meaning that most of the students in experimental class achieved acceptable score in the test. Rather

different with what presented by control class' score analysis that the 35% of the students gained the scores that allocated in Very Poor level added with 45% from Poor level, which make it only 20% (4 students) passed the acceptable score level (Fair : 5.6 – 6.5).

The result of Normality test (Sig. 0.4 for control group, Sig. 0.3 for experimental group) and Homogeneity test (Sig. 0.06) showed that the data had normal distribution and the groups were homogenous. Besides that, the comparison of both groups could be seen below.

Table 3.Group Statistic

	Group	N	Mean	Std. Deviation	Std. Error Mean
Score	Control Group	20	3.9215	1.61402	.36090
	Experimental Group	20	6.7235	1.06554	.23826

With 20 numbers of students from each class, control group gained 3.921 mean score while experimental group's mean score extended to 6.723. It was displayed in the table that control group had higher standard deviation (1.61) than experimental group (1.06). Standard error of mean showed that control group has gotten 0.3609 while experimental group got 0.2382. This result showed that there is a difference between control and experimental group. The students who were given treatment with Cornell note taking method achieved higher score in the test than those who were not given any treatment, in which they took notes based on their own style.

Table 4. Result of Independent Sample T-test

Df	T	Sig. (2-tailed)	Mean Difference	Std. Error Difference
38	6.479	.000	2.80200	.43246

The table above showed that H_1 was accepted and H_0 was rejected with Sig. (2-tailed) as .000 was less than α value (0.05). This meant that there was significant effect of using Cornell note taking method on students' grammar learning at class XI of MAN 1 Kendari. Furthermore, the data gained 0.6 as effect size which according to Cohen's (1998) category of effect size, the value of 0.6 – 0.8 was considered to be a large effect size. Thus, Cornell Note Taking Method worked well and had a large effect on students' grammar learning at MAN 1 Kendari.

5. Discussion

The data showed that conventional note taking was not enough to encourage students to obtain the advantages of taking note. Using conventional note taking revealed that the students only wrote down what was written on the whiteboard. Some students wrote in orderly fashion while others not. Moreover, the amount of details included in their notes was not enough to help them prepare for the upcoming exam. During the treatment in experimental class, the students displayed the advantage of taking notes by using Cornell method. Not only Cornell note taking

method expanded their attention span (Rowntree, 1976), it also helped to recall information effectively and aided them in organizing their ideas (Kesselman-Turkel and Peterson, 2003).

Firstly, students in experimental class paid more attention than control class to the lesson. The proof could be seen from the amount of information stored in their notes. Control class wrote less information than experimental class in each lesson. To be able to take much information, the students must concentrate to the lesson, on what was being written on the whiteboard or said by the teacher. This was the reason why taking much notes related to paying attention to the class.

Secondly, Cornell's note format aided students in organizing the information in their notes better. The two columns, left one filled with cue words or questions and the right contained the details, had allowed students to allot information in a manner that was more ordered and easy to find and remember. Summary column gave an opportunity for students to summarize the lesson so they could have a big picture of what was learned on that day. Thus, the summary helped students on keeping the information for a long time in their memory (Davis and Hult, 1997).

Lastly, students in experimental class recalled information better than those in control class. The post-test result presented the mean score in experimental group was higher than control group with only 20% students in control class passed the Fair level, which was lower than experimental class whose 85% students passed the Fair level (5.6 - 6.5). Akintunde (2013) stated that Cornell method was adopted to increase achievement score and that this method was effective for recalling or retrieving information. From the treatment and post-test result, it was revealed that Review step of Cornell method had allowed the students in experimental class to gain upper hand in the posttest. Review time which was done each week helped students to refresh their memory from time to time. On the other hand, conventional note takers did not spend time to review their notes unless when the exam was near. In this case, added with less information stored in and less time used to review their notes had failed control class to have high scores in the test.

This matter was displayed well on how they answer the sentence transformation items of the test. There were 7 items about sentence transformation. Only a few students in control class were able to do that, few of them can somehow grasped the syntactic order, however, they failed in the inflection and adding required elements. On the other hand, most of the students in experimental class were able to transform the sentences, majority in complete and correct order. This corresponds to what Davoudi, Moattarian & Zareian (2015) had reported in their study, that not only Cornell note taking method had the potential of helping students to overcome the difficulties in note taking and obtaining more grammatical knowledge, but also it supported critical thinking, enabling learners answer higher-order thinking skill items on a test. Similar statement also reported by Jacob (2008) that the effectiveness of Cornell method worked when the students were required to synthesize, apply, and evaluate the knowledge or information.

6. Conclusion

In conclusion, Cornell note taking method helped students to be more focus, to recall and retrieve information better, to organize ideas in orderly fashion, and to

apply their knowledge well. This method also presented that better achievement was gained by the Cornell note takers in grammar test compared to the conventional note takers. Thus, by the findings of this study, it could be concluded that Cornell note taking method had significant effect and worked well in improving students' grammar learning at class XI IPS 3 of MAN 1 Kendari.

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