Developing Students’ Note Taking Skills through Cornell Format

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Abstract

Note taking is a type of activity that is inseparable in the academic settings; for example, making short notes on a lecture, creating a list of to-do assignments, or re-writing ideas from a textbook. However, these note taking activities are often done without any particular system since the majority of Indonesian students have little knowledge on how to properly take notes. In this study, the aim was to develop students’ note taking ability by introducing them to a note taking format, commonly known as Cornell notes. The study employed two-cycle class action research to implement the Cornell format to a total of 15 students of English Education Department of University of Muhammadiyah Aceh. The students were asked to take notes by following the procedure in the Cornell format, in which it required the students to write in short phrases/sentences in four blank columns: heading, cue, note taking, and summary. The students’ note taking results were compared to a note taking criteria adapted from AVID, which used a four-scale category. Findings indicated that, in general, ten out of 15 students were in the “fair” category and four were in the “good” category, while only one was “poor”, in taking proper notes by using the Cornell format in cycle I. These results further improved in the cycle II wherein five students had been in the “excellent” category, seven reached the “good” category, and the remaining three were “fair”. The students were eventually able to do appropriate note taking by using the Cornell format, and this suggests that the students can make a good habit in note taking if they apply a correct method. Further, they can also make a summary out of a long written text so that they can easily review and learn a topic better.

Keywords: Note taking, Cornell Format.

Introduction

In the classroom setting, note taking is integral in the students’ life as they often record or transfer the information from lectures or textbooks (Williams & Eggert, 2002; Piolat, Olive & Kellogg, 2005; Boyle, 2010; Broe, 2013; Friedman, 2014). Therefore, the students are expected to possess good note taking skills considering that lectures and textbooks are two major sources of learning (Boyle, 2010).

The ability to take notes appropriately will lead the students to have effective notes for learning (Friedman, 2014) because, most often than not, the notes help the students better understand what has been said during lectures and keep the information for the next review (Boyle, 2001; Boyle, 2010; Quintus, Borr, Duffield, Napoleon & Welch, 2012). However, despite note taking is common among the students, their notes are usually less effective since teachers or lecturers rarely teach...
any proper technique to the students (Kiewra, 2002 as cited in Broe, 2013; Friedman, 2014). Such is also the case for the majority of Indonesian students, as revealed by Hayati (2013) in her survey. She found that most students of the Faculty of Psychology in the University of North Sumatera had little knowledge on effective note taking techniques, making them unable to use their notes for later study. Further, those students then borrowed their friends’ notes assuming that the notes contained better information, only to realize that they could not even understand the content of the notes. A similar issue also occurred among the secondary school students in Samarinda who had a trouble understanding their own math notes due to poor note taking skills (Nurdaliana, Dimpudus, & Sumarno, 2011, as cited in Dewi & Indrawati, 2014). Motivated by these findings, the researchers engaged in this study intending to develop the students’ note taking ability by introducing them to Cornell note taking format.

**Literature Review**

A note is basically a product of writing containing condensed words or abbreviations, used for recording or preserving information from any sources (Piolat, Olive & Kellogg, 2005). Taking a note is considered “the most common method used by students to learn information from content lectures” (Boyle, 2011, as cited in Broe, 2013, p. 2). Because people only capable to remember information in such situations in a short term (Zorn, 2007), the note helps retain information in long-term memory (Piolat, Olive & Kellogg, 2005). However, studies have shown mixed findings concerning the impact of note taking for the students on learning (Hayati & Jalilifar, 2009). Some found that note taking had no significant influence on learning (Dunkel, Shitala & Berliner, 1989; Broe, 2013), even reduced the learning outcomes because the students took verbatim notes (Trevors, Duffy & Azevedo, 2014), while others claimed that it improved student achievements or skills (Zorn, 2007; Kliçkaya & Çokal-Karadaş, 2009; Davoudi, Moattarian & Zareian, 2015). The difference in these results is very likely due to whether or not the students reviewed their notes afterwards. Dunkel, Shitala & Berliner (1989) remark that taking notes with no intention to re-read them will have no efficacy on learning. Likewise, Kobayashi (2006) also found that note taking and note reviewing positively affected the learning outcomes.

The popularity of note taking in the classroom leads people to inadvertently believe that note taking needs not be taught formally (Boch & Piolat, 2005), and so the students are left to choose which note taking strategies are suitable for them (Broe, 2013, Bui & Myerson, 2014). Note taking, however, is considered a challenging task as it requires the students to listen to lectures, understand the content, while at the same time jotting down important information (Piolat, Olive & Kellogg, 2005; Boyle, 2010; Bui & Myerson, 2014). The difficulty in note taking is also influenced by the pace of lecturer’s speech (Boch & Piolat, 2005), indicating that the students find it difficult to keep track on the lecture if the lecturer speaks too fast and utters incomprehensible words (de Brito, 2015).

All of these issues eventually lead the students to embrace various note taking strategies depending on their cognitive levels; and thus, the quality of notes taken will vary (Bui & Myerson, 2014). To help the students avoid poor note quality and enjoy the benefits of effective notes, many agree that note taking strategies should be instructed so that the students are exposed to good strategies (Boyle, 2007; Quintus et. al., 2012; Broe, 2013; Bui & Myerson, 2014; Chang & Ku, 2015; Ipek, 2018). There are several strategies that are beneficial in note taking including outline notes, matrix notes (Kiewra, Benton, Kim, Risch & Christensen, 1995), Cornell notes (Broe, 2013; Davoudi, Moattarian & Zareian, 2015; Swenson, 2018), foldables, four squares & a diamond, guided notes, and mind-mapping (Swenson, 2018) among others.
In this study, the Cornell format was selected as the strategy to teach the students on how to take notes from books as it has been recommended by some university centers (Friedman, 2014) and it allows for an organized and systematic structure for documenting and studying information (Zorn, 2007; Hayati & Jalilifar, 2009; Davoudi, Moattarian & Zareian, 2015). Cornell note taking style is a format developed by Walter Pauk at Cornell University involving several steps: Record, Reduce, Recite, Reflect, Revise, and Recapitulate (Zorn, 2007). The Cornell format is divided into four columns: heading (top column), for writing lecture or book titles and other bibliographical details; note taking (right column), for writing down information from lectures/textbooks; cue (left column), for key ideas based on information in note taking column; and, summary (bottom column), for an overview of all information (Broe, 2013; Swenson, 2018). A sample of Cornell notes is shown in Figure 1 below:

![Figure 1. Example of Cornell Notes of AVID's Application (Brown, 2015)](image)

**Research Method**

This study employed two-cycle classroom action research design. The action research design was used considering that the study hoped to implement a technique of note taking in the writing class of our university. Therefore, the study would only be a case study without making any generalization for any other samples. Here, selected participants were those who had taken or was taking the writing course at the time of the study, consisting of 15 students of English Education Department of Islamic Studies Faculty of the University ofMuhammadiyah Aceh. The demographic data of the participants showed there were 73% females and 27% males, from 2013, 2015, and 2017 intake years. Materials for the study comprised: a handout, containing information on note taking, Cornell format, and note examples; and, a workbook, containing some excerpts from several books.

The study was carried out in a workshop with a two-cycle period over the course of 6 weeks from February 15 to March 19, 2018. The first cycle was run in three days with a three-hour meeting each, whereas the second cycle was done after a four-week interval in another three days as in the first one.
In the beginning of the first cycle, the study used a PowerPoint presentation to introduce and explain the Cornell note taking system to the participants, as well as some samples of Cornell notes. Following the presentation, the researchers provided some instructions on how to take notes on the whiteboard so that the participants understood better. The materials were also provided to the participants to ensure they had a copy of the presentation slides and the texts needed for note taking practice. Afterwards, the study required the participants to get familiarize with the Cornell format and practice first by working on their notes in their workbooks, prior to having their final notes examined in each cycle. There were a total of four texts to take notes in cycle I, with the notes of the last text being the ones analyzed.

The procedure was repeated in the second cycle, except that the researchers began the workshop by showing the participants the step-by-step note taking in a general way and highlighting the use of short phrases and abbreviations in Cornell notes. The texts used in cycle II were different from those in cycle I because it was necessary to analyze the progress made by the participants after almost one month break.

This study collected data from the students’ notes in each cycle, using a quantitative approach. The notes’ quality was scored based on a rubric adapted from AVID (Nickerson, 2011), from which the comparative data of the students’ notes from the two cycles could be analyzed. The rubric had four levels of category, ranging from 0 (poor), 1 (fair), 2 (good), to 3 (excellent), in five different aspects of notes. Here, the study only examined the descriptive statistics of the data collected.

### Results and Discussion

During the first cycle, the participants looked confused on how to take notes using the Cornell format. It was observed that they were still unfamiliar with the technique as they struggled to record key ideas on their workbooks. Their reactions were expected since the writing course they took never introduced any note taking formats in the classroom. Their unfamiliarity and lack of note taking skills were reflected in their notes collected by the researchers, as shown in table 1 below.

| Table 1. Descriptive Statistics of Note Taking Scores |
|-----|-----|-----|-----|-----|
|     | n   | Min | Max | M  | SD  |
| Cycle I | 15  | 0   | 2   | 1.20 | .561 |
| Cycle II | 15  | 1   | 3   | 2.13 | .743 |

The mean of the participants’ notes in cycle I showed that the quality was “fair”, suggesting that the notes contained main points of information from the excerpt, but still had limitations in all five aspects. Most participants partially understood how to correctly put bibliographic details, note down main ideas, use abbreviating techniques and paraphrasing, highlight key terms, make questions, and summarize; therefore, their notes could not be said to be effective enough since they were close to verbatim (word-by-word) notes. Boyle (2007) argues that in taking good notes, note takers should record brief points in a readable structure and avoid putting too detailed (word-by-word) or too loose (little) information. If the note takers write the information verbatim, their notes can have an adverse impact on learning (Hughes & Suritsky, 1994, as cited in Boyle, 2007).

In the second cycle, the mean increased to the “good” quality, indicating that the participants had developed their note taking skills and were aware of what needed recording and reviewing. Some notes even displayed an “excellent” quality, meaning that the participants were efficient note takers. The improved ability of the participants’ note taking implies that training people a proper note taking technique is helpful because they will be able to condense information systematically (Hayati & Jalilifar, 2009). During observation, the researchers discovered that some participants
were still lacking in employing abbreviating procedures and paraphrasing, two of which could become issues for further studies.

In table 2 below, the distribution of the note quality of the participants is provided. More than half of the participants reached score 1, and there was none who obtained score 3 in cycle I. This result is, in fact, quite satisfactory and shows that the participants could follow the system of the Cornell note taking despite being exposed to the strategy for the first time. This affirms what Hayati & Jalilifar (2009) has stated that the Cornell system is useful for new note takers.

The note quality further rose in cycle II, with none of the participants’ notes reached score 0. As the cycle was undertaken the next four weeks, it is impressive to look at its result as only 3 notes achieved score 1, while the majority had score 2 and more than 30% could obtain score 3. The impact of getting used to taking notes with the format was obvious which is, perhaps, because the Cornell note taking has an easy to understand format (Zorn, 2007). This finding also conforms the study of Meysarah & Purwati (2015) who found that the students admitted that using the Cornell system helped ease their task in listening class.

<table>
<thead>
<tr>
<th>Score</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Frequency</td>
</tr>
<tr>
<td></td>
<td>Cycle I</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

There may be some implications from the findings of this study to teaching and learning process. The efficacy of note taking has been particularly evident on the students’ learning achievements if the students can have good notes to be reviewed later. To yield such effective notes, instruction on note taking strategies is important in classroom (Hayati & Jalilifar, 2009). Therefore, it is recommended that teachers/lecturers promote correct note taking skills in the classroom to allow the students develop the habit in retaining necessary information. Future research may cover the other note taking strategies and compare the findings with that in this study.

**Conclusion**

As an essential activity in learning, note taking requires adequate attention in order for the students generate better notes for reviewing. One strategy of note taking, known as the Cornell format, can be applied in class so that the students can learn how to take notes appropriately and effectively. In this study, the researchers found that the Cornell note taking was quite easy to teach because it has a simple layout that the students could follow. Our findings revealed that even in cycle I the students could attain “fair” quality of notes overall despite having never been exposed to any note taking techniques. The students’ notes further improved to “good” quality in cycle II in a span of 6 weeks, showing that the Cornell format was indeed very useful, owing to its systematic and organized structure.

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References


