



The Effectiveness Smart Chart to Improve the Students Understanding in Linguistic

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ABSTRACT

Keywords:

Smart Chart;
 Station;
 English Linguistic.

Difficult in understanding the scientific book, the monotonous learning method and uninteresting way to learn the Linguistic was the classic problem which never resolved up to now. The purposes of this research are to cover the students' problems in understanding Morphemes and Syntax Material based in virtual learning, reduce the students' pressure and Increase the students' motivation to learn Morphemes and Syntax material using Smart Chart. In implication, this research using experimental research with one group pre-test and post-test. The research was done for the English Department Students by using population is 32 students whose taken Morpheme and Syntax subject. This research designed was suitable which education atmosphere in this era. The technique of sampling is using purposive sampling as the collecting data. Even the lecturer must be working hard and need more time to prepare the learning process, the students show the value table is 1.696 and value of t-test is 20.42. It means that Smart Chart Technique is effective and the students got good achievement.



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A. INTRODUCTION

The experts of linguistic claimed that the linguistic have evolutions because of unclear terminology of nature language (Crossley, 2020). To avoid the negative evolutions, they should designed the linguistic descriptions and keep up the linguistic understanding of the emergence of speech in the future. The gestures roles, the vocal apparatus, cognition, syntax, and social interaction in the emergence of language should be focus to study for the university students, and all of it include on linguistic area, especially on morphology and syntax (Mondada, 2016).

Knowing the nature of language from the small part like sounds and meaning, include the morphology and syntax which should study by the students, called linguistic which concerned with aspect of grammar (Rosiana, 2021). If we thought about the language, we realized that oral spoken and written has their structure. The structure of English language made up with a set of rules, which call as grammar. Hence, the levels of grammar understanding do not just from using the tenses and its structure for the university students'. The linguistics subject does not as simple as grammar from the surface, it is more than it. The branch of linguistic and its aspect need attention to study in particular morpheme and syntax. Morpheme is study about the formation and composition of words. The focus this study about words which decomposed into

smaller meaningful elements that linguistic (Tariq dkk., 2020). Besides, syntax is learning the words formation and composition of phrases and sentences (Roy, 2002). It is explain the sentences and their structure, and the constructions within sentences. Syntax tells the learner what goes where in a sentence. Both of grammar and syntax has the similarity and difference. Both of syntax and grammar terms have to do with the rule of formation of sentences. Then, the difference both of them are grammar is a set of rules for organization of meaningful elements into sentences. One part of grammar is called morphology (internal), and the other part is called syntax (external).

Based on the preliminary study, the researchers found some problems in this study such as material available, the students' motivations and material understanding. Unfortunately, Morpheme and Syntax as the core book for the learning process were difficult to understand by the student. The linguistic feature of core book describe with unorganized, the students felt complicated to connect the book information with their background knowledge. Then, the available morphosyntax material which is representative with the newest morphosyntax syllabus is rarely in the market especially around Nganjuk, Kediri, Jombang, Mojokerto and Surabaya. Even the morphosyntax material available around internet, but it is widely and too general. The students' cannot absorb all of the information because the material difficult to understand. The students need the simplest way to study English morphosyntax with the clear target of goal (Rosiana, 2020), so they could understand the material effectively.

The problems also come from the students' motivation in studying morpheme and Syntax subject. The preliminary study result describes, the researchers found that most of the students' lack motivation in this subject. Since the students found the linguistic subject in the last semesters, they had been rejected it first. Besides, the language features in the linguistic books is hard to understand, most of the students cannot accept the material more than 40 percent. In sort sentences, linguistic subject is bored around of the students and the lecturer aim to stimulate the students' motivation by effective learning which suitable with morphosyntax subject and change the atmosphere study morphosyntax around of the students (Matchin & Hickok, 2020).

Beside the morphosyntax problems, to pass English subjects, the students expected to master 4 language skills which are related and separate yet bound together with an inseparable bond, they are listening, reading, speaking and writing (Sukman dkk., 2020). From the English skill above, reading and listening are receptive skill. Some of experts said that, receptive skill is easy to understand because the points just understand the meaning. In reality, it was not. Even reading is the receptive skills, but the process understanding the scientific book from Morpheme and Syntax more than it. Reading is process involves deep comprehension. Reading is an effort to build the readers comprehension in a collection of sentences in the text (Muhid dkk., 2020). It was an important process to build our compression to get information and increase the students' knowledge. The reading comprehension is combining readers' knowledge and information from the text to build the meaning (Cruz & Tantia, 2017). So, it is not just the reading activity in proper pronunciation and hard voice. Without comprehension the text, the students just read the text but they are get nothing. The students cannot absorb the information, knowledge and even problem by the text, that is way to understand the reading more than receptive skill.

Related International Student Assessment Program (PISA, 2018), was survey that conducted in every 3 years around 77 countries. As the result, Indonesian reading literacy ranked 72. Even, this activity is focus on the Senior High School, but it has correlation for every level of education

from kindergarten up to students at university. This conditions, are not just from the students, but also from educational facilities, such as the teachers role, the way of teacher and lecturer give the reading material, how the lecturer stimulate the students critical reading, and types of students' assignment in reading. Besides, the pandemic COVID 19 situation is additional problems. The lecturer should have new learning method to transfer their knowledge over virtual learning, it such as shocking condition. As the result, the researchers should focus on the students' reading skill to understand scientific book toward virtual learning.

The researchers as the lecturer use various methods to solve the problem and we choose the one the best method. The researchers used this learning technique to improve their reading ability and make the students interesting with our learning. One of the methods is Smart Chart (Truitt & Ku, 2018). First, Smart Chart will emphasize the students' schemata to understand the scientific of Morpheme and Syntax material by their self. The class presentation trough virtual learning by using zoom or Google meet, will guided the students to understand the linguistic material deeper as same as offline class (Hrastinski, 2019). Then, the assignment which serves as video by the lecturer in Google Class Room will complete the students understanding toward the linguistic material, especially in Morpheme and Syntax subject. This activity based on Higher Thinking Order Skill (HOTS), and the researchers believes this strategy make an active learning in virtual class; improve the student reading understanding, easy to share the idea and opinion in oral and written product.

B. METHODS

The researchers use a pre-experimental design, especially pre-test and post-test design for in one group. The research carried out at all of English students whose taken English Morpheme and Syntax Subject. Design of the study pre-test and post-test that be given to measure the students' reading achievement before and after the treatment giving. It shows that this research uses only one subject group. The subject must be measured first by using pre-test (O_1). After getting the result value of the pre-test, the subject group gets a certain experimental treatment (X) that in this case is Smart Chart Technique Following the experimental treatment, The researchers measured the result value of post-test (O_2) and proceeded to account for the differences between pre-test and post-test value by reference to the effects of experimental treatment (X) or being taught using Smart Chart

There are two variables that the researcher applies influence the teaching and learning process in this research. The dependent variable in this research is reading skill to understand Morpheme and Syntax' material and the independent variable in this research is Smart Chart technique. The researchers took the whole of population as the sample consists of 36 students. The technique of collection data in this research is reading skill that has an instruction to understand the Morpheme and Syntax material in every test. The researchers give pre-test and post-test. Form the tests, the researchers compares the value between the result of pre-test and the result of post-test.

In analyzing the students reading understanding, the researcher focuses on the the reading elements (Sulistyo, 2015). They are word attack, sentences attack skill interpreting, text attack skill or text structure, and text content (critical reading). The result of students' score, to know whether the student success or failure in understanding English Morpheme and Syntax book as the scientific reading book, we can see from table of achievement. The category of the students' reading score represent as shown in Table 1.

Table 1. The category of The Students' Reading Understanding Score

No	Score	Criteria
1.	86 - 100	Excellent
2.	76 - 85	Good
3.	66 - 75	Enough
4.	46- 65	Poor
5.	≤45	Very Poor

An analyzing data is one of the main processes in a research. In this case, the researchers must analyze the data by using certain technique of data analysis after collecting the data (Pino dkk, 2020). The researchers uses t_{test} to calculate the data by comparing students' pre-test and post-test. The formula is seen as follow mean, standard derivation and t-test calculation. Those formulas used for pre-test and post-test in this research. Mean of pre-test value will be compared with mean of post-test value. This process has aim knowing the average of students' value and how far the improvement of the students' understanding in Morpheme and Syntax book. The value of t-test is obtained if the hypothesis is accepted or rejected " t_{table} " with the significant level of 5%. If $t_{count} > t_{table}$, H_a is accepted. It means the effectiveness of Smart Chart as Station Rotation Blended Learning is Improve the Students Understanding in English Morpheme and Syntax Material.

C. RESULT AND DISCUSSION

In this part, the researchers show the general description of the students' scores in experimental class. The researchers would like to show the obtained data that would be described and analyzed using descriptive analysis as explained below:

1. Students' Reading Understanding before using Smart Chart

In this section, the researchers presented the result of the students' reading understanding in Morpheme and Syntax material before using Smart Chart, the pre-test was done at the first meeting of this research. It was done before a treatment. It was given for the students to know the students' reading understanding by administering pre-test. The pre-test contained an assignment that asked the students to understand the Morpheme and Syntax material which represent in a core book material.

The calculation result from the pre-test showed that the average of students' result before using Smart Chart technique was 41,25, with the highest score was 60 and the lowest score was 15. There was no students got good category, 15 students got enough category, and 14 students got poor category, and the 3 students got very poor category with the minimum standard score (called KKM) that was 70. After getting the result of pre -test, the researchers gave treatment for the students. The treatment is introducing Smart Chart technique for the students whose taken the Morpheme and Syntax as the subject.

2. The Students' Reading understanding after using Smart Chart

In this section, the researchers presented the result of the students' reading understanding after using Smart Chart techniques. It was done after the treatment process, the function to know the students' reading understanding achievement after getting the treatment. The post-test contained an assignment that asked the students in creating various activities such as designed summary of Morpheme and Syntax material in oral and written, Answer the case which should answer directly, giving explaining by data analysing. The researchers showed that the

average of students' result after using Smart Chart technique was 70. The highest score was 80 and the lowest score was 45. The analysis of students' improvement, as shown in Table 2.

Table 2. Analysis of Students' Improvement Result

Characteristics	N	SUM	Mean	Lowest Score	Highest Score
Before Using Smart Chart	32	1.320	41,25	15	60
After Using Smart Chart	32	2.245	70,156	45	80

(Source: Processed by the Researchers)

The empirical data based on Table 2 that the number of students reading understanding data taught before and after using Smart Chart technique are 32 students. The average of students' learning result increased from 41.25 to 70.156, as shown in Figure 1.

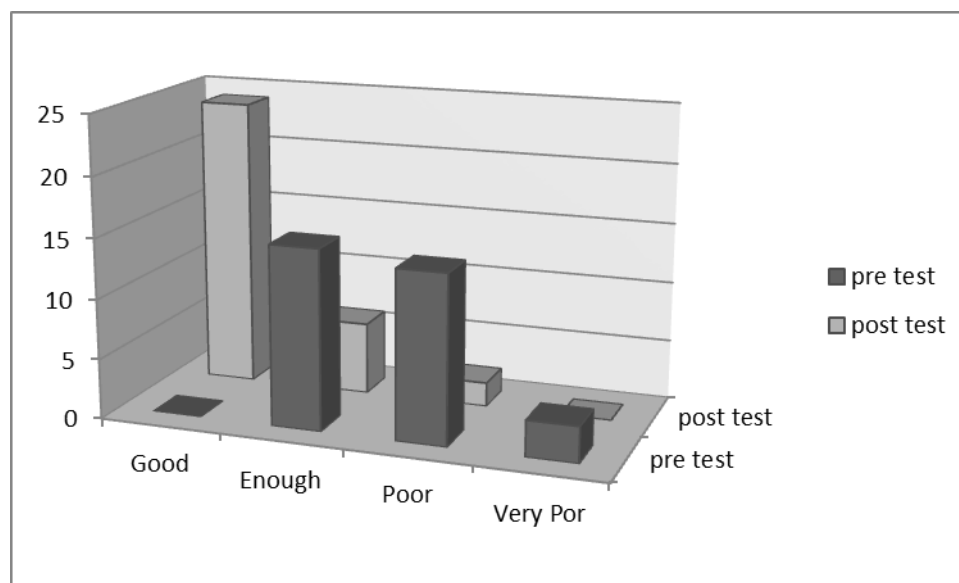


Figure 1. The Result of Pre-Test and Post-Test Categories

Based on Figure 1, it is known that in pre-test there are no student get good category, 15 students got enough category, 14 students got poor category and 3 students' got very poor category. In post-test, there were 24 students got good category, 6 students got enough category, 2 students got poor category and no student got very poor category.

3. The Students' Reading understanding before and after using Smart Chart

In this section, the researchers presented the students' writing recount text before and after using Smart Chart Technique. The descriptions were presented, as shown in Table 3.

Table 3. Score of Students' Reading understanding before and after Using Smart Chart technique

No.	Name	Pre-test	Post-test	D	D
		(x)	(y)	(y-x)	(y-x) ²
1.	Student 1	35	80	45	2025
2.	Student 2	45	60	15	225
3.	Student 3	50	80	30	900
4.	Student 4	35	65	30	900
5.	Student 5	35	70	35	1225
6.	Student 6	35	70	35	1225
7.	Student 7	50	80	30	900
8.	Student 8	35	75	40	1600
9.	Student 9	45	80	35	1225
10.	Student 10	40	60	20	400
11.	Student 11	50	75	25	625
12.	Student 12	45	65	20	400
13.	Student 13	55	80	25	625
14.	Student 14	20	45	25	625
15.	Student 15	45	80	35	1225
16.	Student 16	40	80	40	1600
17.	Student 17	60	80	20	400
18.	Student 18	25	45	20	400
19.	Student 19	40	70	30	900
20.	Student 20	15	40	25	625
21.	Student 21	45	60	15	225
22.	Student 22	55	80	25	625
23.	Student 23	30	70	40	1600
24.	Student 24	40	70	30	900
25.	Student 25	40	80	40	1600
26.	Student 26	40	75	35	1225
27.	Student 27	20	55	35	1225
28.	Student 28	55	80	25	625
29.	Student 29	40	75	35	1225
30.	Student 30	55	80	25	625
31.	Student 31	50	70	20	400
32.	Student 32	50	70	20	400
	Σ	1320	2325	925	28725

(Source: Processed by the Researchers)

The data analysis has been gotten through the value of t_{count} is 20.424. Then, after got value of t-count we must find DF (distribution frequency) and see the t-table. The value of df (distribution frequency) is 32 for knowing the significance of that count result through t-table. The researcher got the result of T distribution from manual calculation, it is found that t_{table} for $t_{0,05} = 1.696$. So, $t_{count} > t_{table} = 20.424 > 1.696$.

Based on the research finding, it showed that the mean scores between pre-test and post-test are different. The mean score of students' in understanding the scientific reading books before using Smart Chart Technique was 70.69. The mean score of students' in understanding the scientific reading book after using Smart Chart Technique was 81 and to know what difference was significant or not, the writer used t distribution. It was shown that $t_{count} > t_{table}$

(20.424 > 1.696) so, null hypothesis (H_0) was rejected and alternative hypothesis (H_a) was accepted. It means that Smart Chart Technique based on as Station Rotation Blended Learning was effective and the students got good achievement.

The word "effective" here means that Smart Chart Technique based gives positive effect on the students' achievement. Toward this technique, the students could recall the information which they had been read, then, combine it with the new information. The implication of understanding morpheme and Syntax product are not just the reading achievement but also in the oral and written skill. This learning is the implication of Higher Thinking Order Skill (HOTS). Through this technique, the students were easier to generate the ideas because they got stimulus from Smart Chart to understanding the material. They could understand the reading with easily and relax without hard feeling. Smart Chart Technique helped the students' more communicative way to share they idea. This technique made the students enjoy and active to learn linguistic book.

Smart Chart activities described as the various activities from trying learning morpheme and syntax as individual activity first, the students will get new the concept after the lecturer give Smart Chart material which serves in virtual meeting as the second activity. Trough virtual meeting, both of student and lecturer had nice discussion to find the problem solving of the case which has been selected by the lecturers. Next, the feedback also was given by the lecturer in the end of meeting toward the video. It has the function to bold the students understanding related to Morpheme and Syntax material. Last, the students' assignment as the product of learning activity was submit in Google Class Room. The activity is representing as written and oral product.

D. CONCLUSION AND SUGGESTIONS

After implementing and getting the result of the research, there are several important things can be suggested in this research and it hopefully can be useful for the readers especially for English lecturers, students, and further researchers. For English lecturers, understanding the scientific reading book such as linguistic books toward virtual learning is mostly known as difficult subject, the lecturers should be creative to make an interesting learning. The lecturers should prepare and select appropriate strategies and materials in producing the effective teaching and learning process. Smart Chart Technique especially is an active reading because it can attract students' interest and motivation to improve all of the English skill directly. The lecturers also should give motivation to the students in order to be active and enjoyable in learning process.

For the students, the students should pay attention to the lecturer when the lecturers give explanations during teaching and learning process. The students should encourage themselves to learn and practice English especially in reading. The students should be more active in the learning process and improve their reading skill, so the students can be successful in English learning. For the further researchers, the researchers hopes the further researchers can make this research as their reference to conduct a research on the same case. They could conduct a research with the same technique but in different genres or subject. They also expected to be able to cover the limitation about this.

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