CHAPTER IV
RESEARCH FINDING AND ANALYSIS

This chapter is related to the analysis of data collection from the research finding and discussion. This research was intended to find out the effectiveness of limited cloze test for reading ability in narrative text.

A. Profile of MA At-Tawaazun Pemalang

MA At-Tawaazun Pemalang is Islamic based school that had built since 2009 based on the initiative of KH.Sorihin Mukrim as the founder and the citizen of Widuri village. The vision of MA At-Tawaazun Pemalang is "Preparing young generation which has eclectic and noble character". And the missions of it are:

1. Creating the experience and comprehension toward the teaching of Islamic religion and culture to the learners, so that it becomes a source of wisdom in action.
2. Implement the teaching learning process effectively.

B. Description of Research

Findings of this research described that there were different result between pre-test and post-test result after limited cloze test treatment was given to the student. The research was conducted in MA At-Tawaazun Pemalang with the eleventh grade in the academic year 2015/ 2016.

Schedule of the research

No.	Activity	Month/Date				
		February				
		2nd	12th	15th	19th	23rd
1	Try-out Test	√				
2	Pre-test		√			
3	Treatment			√	√	
4	Post-Test					√

Before items were given to the students, the researcher gave tryout test for try-out class on 2nd February to analyze validity, reliability, difficulty level and the discrimination power of each item. The researcher prepared 40 items as the instrument of the test.

In this research finding of try out test, the researcher used *product-moment* formula to analyze validity. The researcher applied the *spearman-brown* formula which was combined with *product- moment* formula to analyze reliability instrument. The degree of test difficulty used difficulty level formula by considered five levels of difficulty. The last analysis of try-out test was discriminating power by divided into two classes; lower class and upper class which consist of 10 students in each class.

The researcher gave pre-test on 23rd March 2014 in experimental class. The questions consisted of 20 items were stated valid according to try-out analysis. After giving pre-test, the writer determined the materials and lesson plans of learning activities. Pre-test was conducted to know that the experimental

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class was normal. After that, the researcher prepared lesson plan and material to learning activity. The researcher conducted teaching narrative text use limited cloze test on 15th and 19th February.

After giving treatments, the researcher gave post-test which consisted 20 test items which approximately finished on 40 minutes. The researcher gave post-test on 23rd February.

Teaching narrative text by using limited cloze test as a medium can encourage the students to be more active and motivated in learning activities, especially for their vocabularies addition. Limited cloze test as a teaching medium can create the atmosphere and situation in teaching narrative text interesting and make the students easier to understand the material and memorable. It can be seen on average score of post-test which had better result than pre-test.

C. Data Analysis

1. First Phase Analysis

The first analysis purposed to get a valid and reliable instrument for investigation. Try out tests were conducted for XII of MA At-Tawaazun Pemalang. Grade XII consisted of 22 respondents. They were given a try out using the instrument that will be used in experiment class. The following is the interpretation of the try out test to find out the validity, reliability, discriminating power and difficult level of the instrument.

a. **Validity of Try Out Test**

As mentioned in chapter III, validity refers to the precise measurement of the test. In this study, item validity was used to know the index validity of the test. To know the validity of instrument, the writer used the Pearson product moment formula to analyze each item. It was obtained that from 40 test items; there were 21 test items which were valid and 19 test items which were invalid. It was invalid with the reason the computation result of their r_{xy} value (the correlation of score each item) was lower than their table value.

Validity of each item

Criteria	r_{table}	Number of Questions	Total
Valid		**1st Story:** 2, 3, 6, 7, 8, 12, 14, 15, 16, 18, 19. **2nd Story:** 2, 4, 5, 6, 11, 12, 13, 16, 18, 20.	21
Invalid	0.4227	**1st Story:** 1, 4, 5, 9, 10, 11, 13, 17, 20. **2nd Story:** 1, 3, 6, 7, 8, 12, 14, 15, 17,19.	19

The following was the example of item validity computation for item number 1 and for the other items would use the same formula.

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 (\sum X)^2\}\{N \sum Y^2 - (\sum Y)^2\}}}$$

N	: 22	$\sum X.Y$	: 131
$\sum X$	: 16	$\sum X^2$	: 16
$\sum Y$	: 155	$\sum Y^2$	: 155

$$r_{xy} = \frac{22(131) - (16)(155)}{\sqrt{\{22(16)(16)^2\}\{22(155)(155)^2\}}}$$

$$r_{xy} = \frac{2282 - 2480}{\sqrt{96 - 15065}}$$

$$r_{xy} = 0{,}6364$$

r(xy) = 0.6364 for α = 5% with N = 22, it would be obtained 0.432

Because $r_{count} > r_{table}$, so the item number 2 is valid.

b. **Reliability Analysis**

After validity items had been done, the next analysis was to test the reliability of instrument. It was done to find out whether a test had higher critical score and gave the stability or consistency of the test scores or not. In this research the researcher use split half technique after being calculated with product moment formulas, such as follow:

$$r_{11} = \frac{2\, r_{1/2\,1/2}}{(1 + r_{1/2\,1/2})}$$

Criteria:

Criteria of reliability analysis

Interval	Criteria
$r_{11} \leq 0,2$	Very low
$0,2 < r_{11} \leq 0,4$	Low
$0,4 < r_{11} \leq 0,6$	Medium
$0,6 < r_{11} \leq 0,8$	High
$0,8 < r_{11} \leq 1,0$	Very High

Based on the analysis of test table obtained:

ITEM AWAL (X)	ITEM AKHIR (Y)
4	3
4	2
4	3
6	3
5	1
4	4
2	0
7	4
7	3
5	6
5	6
3	4
4	6
4	6
6	4
1	1
4	5
3	3
1	1
2	0
3	2
6	3

with,

$$r_{11} = \frac{2 \times 0{,}478}{1 + 0{,}478}$$

$$r_{11} = 0{,}647$$

From the computation of reliability try out instruments using split half technique, it was obtained 0.647, for α 5 % with N = 22. It was obtained 0.423. It could be concluded that the instruments that were used in this research was reliable.

c. **Discriminating Power Analysis**

Below is the example of the computation of discriminating power on item number 2, with the formula as follow:

$$D = \frac{B_A}{J_A} - \frac{B_B}{J_B}$$

Criteria:

Table 4.4
Criteria of discriminating power analysis

Interval (D)	Criteria
D ≤ 0.00	Least
0.00 < D ≤ 0.20	Less
0.20 < D ≤ 0.40	Enough
0.40 < D ≤ 0.70	Good
0.70 < D ≤ 1.00	Excellent

Calculation:

Below is the example of the computation of discriminating power on item number 2 of 1st story.

no.	Ja	Jb	Ba	Bb	Pa	Pb	D
1	11	11	7	5	0.636364	0.454545	0.181818
2	11	11	8	3	0.727273	0.272727	0.454545
3	11	11	11	8	1	0.727273	0.272727
4	11	11	0	0	0	0	0
5	11	11	5	3	0.454545	0.272727	0.181818
6	11	11	6	3	0.545455	0.272727	0.272727
7	11	11	11	6	1	0.545455	0.454545
8	11	11	5	0	0.454545	0	0.454545
9	11	11	4	4	0.363636	0.363636	0
10	11	11	0	0	0	0	0
11	11	11	4	6	0.363636	0.545455	-0.18182
12	11	11	6	1	0.545455	0.090909	0.454545
13	11	11	0	0	0	0	0
14	11	11	4	0	0.363636	0	0.363636
15	11	11	8	4	0.727273	0.363636	0.363636
16	11	11	10	3	0.909091	0.272727	0.636364
17	11	11	0	0	0	0	0
18	11	11	11	6	1	0.545455	0.454545
19	11	11	7	0	0.636364	0	0.636364
20	11	11	0	0	0	0	0

$$D = \frac{Ba}{Ja} - \frac{Bb}{Jb}$$

$$= \frac{8}{11} - \frac{3}{11}$$

$$= 0.45$$

The result obtained D = 0.45

Because the result in a place between $0.40 < D \leq 0.70$, so the item number 2 is good.

d. **Difficult level Analysis**

The computation of difficulty level of the forty items analysis of reading, it was found that the difficulty level is medium. The sample of computation is as follow.

Formula:

$$P = \frac{B}{JS}$$

Criteria:

$0.00 \leq P < 0.30$ is difficult

$0.30 \leq P < 0.70$ is medium

$0.70 \leq P < 1.00$ is easy

Calculation:

Below is the example of the computation of difficulty level on item number 2

$$P = \frac{11}{22}$$

$$= 0.50$$

Based on the criteria above, the result is between $0.50 \leq P < 0.70$, so item number 2 is medium.

2. **End Phase Analysis**

It was done to answer hypothesis of this research. The end analysis presents the result of pre-test and post-test that was done both in experimental group. This analysis will

answer the research question "Is Limited Cloze Test effective for students' reading skill in narrative text?" We can conclude Limited cloze testis effective when the result of post test of the experimental class (using Limited cloze test) than the result of pre-test (using conventional technique).

a. Normality of pre-test

Normality test is used to know whether the data is normally distributed or not. The researcher use Liliefors to find out the distribution data in normality test. The initial data used to normality test in pre-test. Criteria of test yang which used to significant level α = 5 %, Rapprochement value was 0,886 and DF =20. If $L_{count} \leq L_{table}$ so data was normal distributed dan if $L_{count} > L_{table}$ so data was not normal distributed. We can look at table about the result of normality test:

The initial result of normality test

Group	L_{count}	DF	L_{table}	Criteria
Experiment	0,189	20	0,193	Normal

On the table above, the normality test of initial data in experiment class (X1) for significant level α = 5% with DF = 20, obtained L_{count}= 0,189 and L_{table}= 0,193. Because $L_{count} \leq L_{table}$, so the conclusion is the data was normal distributed.

b. Normality of post-test

The initial data used to normality test in post-test. Criteria of test yang which used to significant level $\alpha = 5$ %, rapprochement value was 0,886 and DF = 20. If $L_{count} \leq L_{table}$ so data was normal distributed dan if $L_{count} > L_{table}$ so data was not normal distributed. We can look at table about the result of normality test:

The initial result of normality test

Group	L_{count}	DF	L_{table}	Criteria
Experiment	0,156	20	0,193	Normal

On the table above, the normality test of initial data in experiment class (X1) for significant level $\alpha = 5\%$ with DF = 20, obtained $L_{count} = 0,156$ dan $L_{table} = 0,193$. Because $L_{count} \leq L_{table}$, so the conclusion is the data was normal distributed.

c. Hypothesis test

Hypothesis test is used to know whether there is a difference on post test of experimental class and control class. The data which is used to test the hypothesis is score post test both of class. To test the difference of average used t-test.

Ho: $\mu_1 \leq \mu_2 \rightarrow$ it means there is no significant difference between the reading skill

improvements of students who were taught by using Limited Cloze test.

Ha: $\mu_1 > \mu_2$ → it means there is significant difference between the reading skill improvement of students who were taught by using Limited Cloze test.

Formula:

$$t = \frac{Md}{\sqrt{\frac{\Sigma x^2 d}{N(N-1)}}}$$

$$t = \frac{39.05}{\sqrt{\frac{13580.95}{21(20)}}}$$

$$= \frac{39.05}{\sqrt{\frac{13580.95}{420}}}$$

$$= \frac{39.05}{\sqrt{5.69}}$$

$$= 6.87$$

With a = 5% and df = 20, obtained t_{table} 2.086.

The final result

Cycle	N	Average ($\bar{X}$)	Md	$\Sigma x^2 d$	t_{table}	t_{count}	Criteria
Pre test	21	24.76	39.05	13580.95	2.086	6.87	Ha accepted
Post test	21	63.81					

Based on the computation above, it is obtained that the average ($\bar{X}$) of pre-test of the experimental class is 24.76. While the average ($\bar{X}$) of post-test of the experimental class is 63.81, with df = 20 by α = 5%, so obtained t_{table} = 2.086. From the result of calculation paired t-test t_{count} = 6.87. If compared between t_{count} and t_{table}, $t_{count}>t_{table}$. It means Ho is rejected and Ha is accepted. There was significance difference of average score from pre-test and post-test of experimental class. From the calculation of interaction pre-test score and post-test score, there was significance different between students before and after treatment.

D. Discussion of the Research Finding

After getting the result of the research, the researcher discussed the data. Based on the teaching learning processed, it could be seen that Limited cloze test is effective for students' reading ability in narrative text. The results that the writer got from this research are:

1. The average score of pre-test was 24.76 and the average score of post-test was 63.81.

2. The progress between pre-test and post-test of experimental class.

    a. The students are interest in understanding the story

        By using limited cloze test, the teacher could create an interesting teaching learning process in the classroom because the students could express their

understanding of the story based on the meaning of vocabularies they had, and share their opinion to know the whole story.

b. The students were motivated to learn together.

It means that teaching using limited cloze test had advantages in learning process, especially in reading narrative text. The strategy of using limited cloze test could help the students solve their problem in reading; besides, it also encouraged the students to be more active and motivated in looking up the meaning in dictionary.

c. The students were started to learn independently.

When students found the vocabularies in words bank, they will look up for the meaning independently.

d. The students can understand more about the material.

It means that after using limited cloze test students can understand about how to find the main idea in the passage. It was affected to the students' average score of post-test that was 63.81.

3. Preparation for teaching instrument such as limited cloze test text and the deletion word in each sentence.

The word deletion of the sentence in cloze test is including the preposition, noun, pronoun, adjective, verb, and adverb. But in this case, the writer will do the deletion for the verb, because it can train the students to know more about the change of the verb which is regular verb or irregular verb.

Here, the students have to guess a passage which removed by words. The cloze procedure can also be used to judge the difficulty of reading materials. Then the teacher should prepared the cloze text that suitable with the level of students.

E. Limitation of the Research

During realization of this research, the researcher realizes that this thesis still has a lot of limitations, such as;

1. The research was limited at XI grade of MA At-Tawaazun Pemalang in the academic year of 2015/ 2016.

2. Researcher does not an expert human in statistical area, there are a lot of formulas and need more time to calculate the result of data.

3. Relative of the implementation process of this research have short of time, makes this research could not be do maximal. But it was enough to fulfill all requirements for a research.

Considering all those limitations, there is a need to do more research about teaching recount text using the same or different medium. In the hope there will be more optimal result.