III.   RESEARCH METHOD

3.1   Research Design

In doing this research, the researcher conducted quantitative research based on the experimental class. The writer used **one group pretest-posttest design**. The researcher selected two classes, one as try out class and another as the experimental class. The researcher conducted the research to see whether there was a significant improvement of students reading comprehension after being taught using scanning and skimming technique. The researcher conducted pretest, treatments, and posttest. The design was presented as follow:

T1   X   T2

Where:
T1 = Pre test
X   = Treatments
T2 = Post test
(Setiyadi, 2000:40)

This study investigates whether scanning and skimming technique can be used to improve the students' reading comprehension ability of recount text in identifying the specific information and finding the main idea significantly by comparing the average score (Mean) of pretest with the average score (mean) of posttest.

First, the researcher administered a pretest to students to identify their ability of reading comprehension in identifying specific information and the main idea in recount text before applying the technique. Then, the students were given three

treatments by using scanning and skimming technique. Eventually, a posttest was administered to identify students' reading comprehension ability in identifying the specific information and finding the main idea in a text after being taught by using scanning and skimming technique. If the average score of the pretest was higher than that of the posttest, it indicates that scanning and skimming can not be used to improve the students' reading comprehension ability in identifying the specific information and finding the main idea in a text significantly. However, if the average score (mean) of posttest is higher than the average score (mean) of the pretest, it shows that scanning and skimming technique can be used to improve the students' reading comprehension ability in identifying the specific information and finding the main idea in a recount text significantly.

3.2   Population and Sample of The Research

The population of the research was the second grade of SMPN 1 Gedongtataan period of 2010/2011. There were 9 classes in 2nd grade of SMPN 1 Gedongtataan and consisted of 36- 37 students in each class (VIIIa-VIIIi). The sample was VIIIa as tryout class which consisted of 37 students, and VIIId was taken as the experimental class which consisted of 37 students. Those classes were chosen by lottery. Through lottery, the researcher wrote the name of the classes in the piece of paper then shakes it in the glass. It was applied based on the consideration that every student in the population had the same chance to be chosen in order to avoid the subjectivity in the research (Setiyadi, 2006:39). The experimental class had pre test, three times treatments and the last was posttest.

3.3 Research Procedure

The procedure in administering the research is as follows:

1. Determining the sample of the research

    In this stage, the writer chose SMP N 1 Gedongtataan Pesawaran as the
    population and sample of this research. There were 9 (nine) classes in the
    second grade level. They were: VIIIa, VIIIb, VIIIc, VIIId, VIIIe, VIIIf, VIIIg,
    VIIIh, VIIIi. The writer took two classes as the samples of the research, VIIID
    as experimental class and VIIIA as try out class. The classes were determined
    by using lottery. The researcher used this technique because all of the classes
    of the second grade students had the same opportunity to be a subject of this
    research. Each class consisted of 37 students.

2. Finding and selecting materials that are going to be taught and tested.

    In this stage, the researcher found some topics for the pre test. The topics
    were taken from the students' handbook and based on the teaching and
    learning syllabus. The topics were about reading, the test was multiple choice
    of recount text.

3. Administering the try out test

    It was conducted to measure the reliability of pre test and posttest and to
    make sure whether the test was good or bad for students. The test was tried
    out to the students whose level was equal to the sample of the research. It was
    administered to find out the quality of the test before it was used, whether the
    items were good or not in validity, reliability, level difficulty, and the
    discrimination power. This examination used reading text consisted of 40
    items of multiple choice in 80 minutes. The maximum score is 100.

4. Administering pre test to the students and getting the result.

   In this stage, the researcher gave 20 items of multiple choice. It was administered for 45 minutes in experimental class. The scoring system was that the load of each correct answer was 5 points. At least, if a student could answer all items correctly, she would get 100 points.

5. Giving treatments by teaching through scanning and skimming technique

   The researcher taught the students reading comprehension ability in reading text using scanning and skimming technique for the experimental class. The researcher gave three times of treatment in three meeting, which took 2 x 40 minutes in every meeting. The text was taken from student's English textbook and internet for eight grades.

6. Administering the post test

   After giving treatments to the students, the researcher conducted the posttest to measure the student's reading comprehension ability after giving the treatment. It consisted 20 items of multiple choices of reading text which took 45 minutes. The scoring system was the same as pretest.

7. Analyzing the data (Pretest and Posttest)

   In this final step the pretest and posttest results in try out class and in experimental were analyzed by using Repeated Measures T-Test to compare the data of the two means score (hatch and Farhady, 1982:108). The researcher analyzed the improvement by comparing the scores of pre test and post test from the experimental class. If the score of post test was better than pre test, it meant that there was a progress of the students' ability.

3.4 Data Collecting Technique

The instrument of this research is reading test using recount text. Two kinds of tests are Pre test and Post test. The data is gained from the student' Pre test and post test scores. They are:

a. Pretest

The pre-test was administered in order to find out the students' basic ability in reading recount text. It required 45 minutes for the test. In this test, the researcher provided some reading materials of recount text. The pretest will consist of 20 multiple choices items of recount text.

b. Post test

The post testwas given after giving treatment. The researcher gave post test in order to know the result of this class in teaching learning process whether they had progress or not. The posttest was administered in order to find out the students' basic ability in reading recount text. It required 45 minutes for the test. In this test, the researcher provided some reading recount text. The pretest consisted of 20 items of multiple choices.

3.5 Instrument

The two reading tests were given to students to check their reading comprehension ability. They are Pre test and post test. The researcher used objective test. It was multiple choice (MC) tests consisted of four options (A, B, C, and D), to make it is easy to correct and to give the score. The material was about recount text. The writer used 20 items for pretest and 20 items for posttest. The purpose of the pretest was to know the students' basic reading comprehension

ability before treatments. The purpose of the posttest was to know the students'

improvement after treatments.

1.9 Criteria of Good Test

3.6.1 Validity of the Test

Validity refers to the extent to which an instrument really measures the objective

to be measured and suitable with the criteria (Hatch and Farhady, 1982:250). A

test can be considered to be valid if it can precisely measure the quality of the test.

In this research, to measure whether the test had good validity or not, the writer

analyzed the content and construct validity.

3.6.1.1 Content Validity

Content validity means that the test is good reflection of what has been taught and

the knowledge which the teacher wants the students to know (Shohamy 1985:74).

It means that the items of the test should present the material being discussed.

Then, the test is determined according to the materials that have been taught to the

students. In other words, the test is based on the materials in the English

curriculum, so that it can be said that the test has content validity since the test is

good representation of material studied in the classroom.

3.6.1.2 Construct Validity

Construct validity concern with whether the text is actually in line with the theory

of what it means to know the language. Construct validity examines whether the

test is actually in line with the theory of what it means to know certain language

(Shohamy 1985:74). It means that the test items should really test the students or

the test items should really measure the students' ability in reading

comprehension. Therefore to know the construct validity of test, the researcher

used table of specification to judge the validity of the test in order to know

whether the test represented the materials discussed.

Table 1. Specification of the validity test

No	Skills of reading	Items number	Percentage of items
1	Determining the main idea	2, 6, 9, 15, 21, 24, 28, 32, 34, 36, 38.	28 %
2	Finding specific information	1, 7, 11, 12, 18, 19, 22, 26, 29, 30, 37.	28 %
3	Reference word	4, 16, 23, 27, 35	13 %
4	Inference	3, 5, 8, 14, 17,31, 39	15 %
5	Vocabulary	10, 13, 20, 25, 33, 40	15 %
	Total		100%

3.6.2 Reliability of The Test

To find out the reliability of the test, the researcher used split-half technique

which requires her to split the test in two similar parts, first and second half

(Hatch and Farhady, 1982:264). To measure the coefficient of the reliability

between first and second half, the researcher used Pearson Product Moment

Formula.

The formula is:

$$r1 = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \Sigma y^2}}$$

Where:

r1   = coefficient between 1st half and 2nd half
X   = total number of the 1st group
Y   = total score of 2nd group

X^2 = square of x
Y^2 = square of Y (Lado, 1964:32)

Then to know the coefficient correlation of the whole items, the researcher used

Spearman Brown Formula:

$$Rk = \frac{2r1}{1+r1}$$

rk = reliability of full test
r1 = reliability of half of the test

The criteria of reliability are:

0.80 – 1.00   = very high

0.60 – 0.79   = high

0.40 – 0.59   = average

0.20 – 0.39   = low

0.00 – 0.19   = vey low   (Hatch and Farhady, 1982:246)

3.6.3 Level of Difficulty

To know whether the test items are easy or difficulty from the students'

perception who take the test, the researcher finds out the level of difficulty. To see

the level of difficulty, the researcher used the formula:

$$LD = \frac{R}{N}$$

Where:
LD = level of difficulty
R = number of the students who answer correctly
N = total number of the student

The criteria are:

LD < 0.30   = difficult

LD = 0.30 – 0.70   = satisfactory

LD > 0.70   = easy (Shohamy, 1985:79))

3.6.4 Discrimination Power

The discrimination power is used to discriminate between weak and strong examinees in the ability being tested. The students of try out class are divided into two groups, upper and lower students. The upper students mean the students who answer the question correctly are more than the lower students who answer the questions correctly (Upper students' score > lower students' score). To determine the discrimination power, the witer used the following formula:

$$DP = \frac{correctUpper - correctLower}{\frac{1}{2}N}$$

Where:
DP = discrimination power
U   = the proportion of the upper group who answer correctly
L   = the proportion of the lower group who answer correctly
N   = the total number of the students

The criteria:

a. If the value is positive, it means that the higher level students get more correct answer than the low students.

b. If the value is negative, it means that the lower level students get more correct answer than the high level students (it can be said tha test item is bad item, should be omitted).

c. If the value is zero, it mean that there is no discrimination

d. In general, the higher discrimination index is will be the better. In classroom situation most items should be higher than 0.20 indexes.

(Shohamy, 1985:82)

3.6.5 Scoring System

In scoring the students result of the test, the researcher used Arikunto's formula. The ideal higher score is 100. The score of pre test and post test are calculated by using the following formula:

$$S = \frac{R}{N} 100$$

Where:
S = the core of the test
R = the total of right answer
N = the total items

3.6.6 Data Analysis

The researcher analyzed the data by comparing the average score (mean) of pretest and posttest by using statistical computerization i.e. Repeated Measures T-Test of SPSS (statistically package for social science) version 15.0 for windows to see whether there is a significant improvement of students' reading comprehension ability of recount text after being taught through scanning and skimming technique.

3.6.7 Hypothesis Testing

Hypothesis of this research was:

"There is a significant improvement of student's reading comprehension ability of Recount text after being taught through scanning and skimming technique."

The hypothesis was used to prove whether the hypothesis proposed in this research was accepted or not. The hypothesis was analyzed by using Repeated measures T-test through computing with *Statistical Package for Social Science (SPSS) for windows version 15*. The writer used the level of significance 0, 05 in

which the hypothesis was approved if sign < p. It means that the probability of error in the hypothesis is only 5%.