CHAPTER III

RESEARCH METHOD

In this chapter, the reseacher discussed operational definition, methodology of the research, population and sample, technique for collecting data, and technique for analyzing data, validity, and reliability.

A. Operational Definition

The title of the research is "Improving Students' Reading Comprehension Ability on Recount Texts by Using Question-Answer Relationship (QAR) Strategy at Second-Grade of SMP Negeri 21 OKU"

1. Reading Comprehension

Reading comprehension is defined as the level of understanding of a text. This understanding comes from the interaction between the word that are written and how knowledge outside the text

2. Recount Text

Recount text is a text that is telling the reader about one story, action, and activity. Recount text is a genre retelling past events for the purpose of informing and entertaining.

3. Question-Answer Relationship (QAR) Strategy

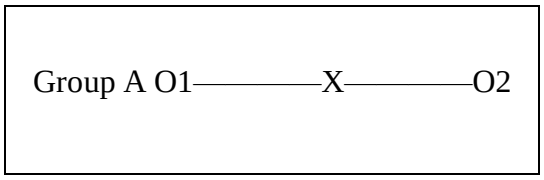
Question-Answer Relathionship (QAR) is a reading comprehension strategy developed for how students undertasnd assignments from reading text and answer the questions.

B. Methodology of the Research

In conducted this research, the researcher applied pre-experimental research design one group pre-test and post-test. The reseacher only used one class to be respondents and used pretest and post-test for collected data. Creswell (2018, p.) stated that pre-experimental designs is the researcher studies a single group and implements an intervention during the experiment. This design does not have a control group to compare with the experimental group.

One-Group Pretest-Posttest Design

This design includes a pretest measure followed by a treatment and a posttest for a single group.



Explanation:

Group A = sample of the research

O1 = pre-test

X = treatment

O2 = post-test

Thus, the researcher believed that the pre-exprimental research design suitable in her research to know that using Question-Answer Relationship Strategy can improve students reading comprehension on recount text.

C. Population and Sample

1. Population of the Reseach

Population is a large group which used by the reseacher to do the research. Creswell (2018) stated that population is a group of individuals who have the same characteristics.

So, the population to this research is all students at second-grade of SMP Negeri 21 OKU.

Table 3.1 Population of Research

No	Class	Number of Students
1	VIII A	27
2	VIII B	25
3.	VIII C	26
4.	VIII D	28
Total		**106**

(Source : SMP Negeri 21 OKU Year 2022/2023)

2. Sample of the Reseach

Sampling is the selection of a subset of the population of interest in a research study. In the vast majority of research, the participation of an entire population of interest is not possible, so a smaller group is relied upon for data collection.

In this research, researcher used simple random sampling to select sample from population. According to Cohen et.al (2018), in cluster random sampling, the researcher can select a specific number of schools and test all the students in those selected schools. That means cluster random sampling is a sampling method in which the reseacher selects a sample with randomly. Because in this research

the reseacher used pre-exprimental research. Where the reseacher only used one class to be respondents and collected data. The researcher used manual way to select a sample by rubbing the paper containing the population of the research.

So, the reseacher got VIII A to be sample of the research consist of 27 students.

Tabel 3.2 Sample of the Research

No	Class	Number of students
1.	VIII A	27
Total number of student		27

(Source: SMP Negeri 21 OKU)

D. Technique for Collecting Data

In this research, the reseacher collected data by using test. The researcher gave reading test to the students to measure the students' comprehensibility in reading. Calculated students' tests from pre-test to the post-test. By giving the reading test, the researcher tried to find out whether the students can answer the test well or not. The aspect of reading comprehension on recount text are determining main idea, finding specific information, identifying purposes, generic structure, understanding vocabulary, identifying pronouns in a sentence, identifying type of text.

The researcher used one-group pre-test and post-test design involves three steps:

a. Pre-test

Pre-test is a test conducted to measure students` initial abilities before doing the treatment. The purpose of giving this pre-test was to know the students`

reading comprehension ability before treatment. Pre-test conducted at the first meeting.

b. Treatment

Treatment used in teaching and learning process. The researcher carry out the class in four meetings. In each meeting the reseacher used to explain about recount text and introduced to students about QAR strategy, purpose and type of QAR strategy, disscused and gave questions. The researcher implemented QAR strategy to comprehend the text with the questions.

c. Post-test

Pre-test is a test conducted to measure students` initial abilities after doing the treatment. The purpose of giving this post-test was to know the achivement students` reading comprehension ability after treatment. Post-test conducted at the last meeting.

E. Technique for Analyzing Data

Quantitative data was obtained from, calculated students' tests from pre-test to the post-test about r**e**ading comprehension on recount text.

a) Scoring the students' correct answers of test:

$$S = \frac{B}{N} \times 100$$

Where:

S = the total students score

B = total of students` correct answer

N = total of test items

(**Source: Majid, 2018**)

b) Percentage the students' answers of test:

$$P = \frac{F}{N} \times 100$$

Where:

P = percentage of students` answer

B = frequence of students` answer

N = total of sample

(**Source: Sudijono, 2018**)

c) Classifying the score of the students by using the following scale:

Table 3.3 Score Interrval and Classification

No	Score Interval	Classification
1.	>80	Very good
2.	66 – 79	Good
3.	56 – 65	Average
4.	46 – 55	Poor
5.	<45	Fail

(Source: Sudijono, 2018)

d) Statistical Analysis

After got the students' scores, to analyzed the data pre test and post test, the researcher used paired t-test in SPSS version 26. The data was analyzed by using statical analysis to know the result whether it is statistically significant, it was analyzed by using t-test. Therefore, the reseacher used t-test from SPSS 26 program to anlyze the sigfnificantly effective of using QAR strategy to students reading comprehension at second-grade of SMP N 21 OKU.

The t-test was used to discover wheter there were statisticsally significant differences between the means of two group or for the same group under two

conditions, drawn from random samples with a normal distribution and using parametric data in the dependent variabel. The t-test has two variants: the t-test for independent sample and t-test for related or paired sample. (Cohen et al, 2018).

The t-test used a paired (related) sample, where the same group votes on two variabel, or the same group is measured on two accosions pre-test and post-test. In this research, the reseacher used paired sample t-test to measured pre-test and post test and know significance diferences of the items. Was there significants effects of using QAR strategy in teaching reading comprehension?

Paired sample T-test showed paired differences to know the same variance, the hypothesis as follows;

a) If sig, (2-tailed) is more than 0,05 H_0 is accepted and H_1 rejected

b) If sig, (2-tailed) is less than 0,05 H_0 is rejected and H_1 accepted

F. Validity and Reability

1. Validity

Cohen, et.al. (2018, p.245) validity is an important key to effective research. If a piece of research is invalid then it is worthless. Addressing validity concerns the nature of what is valid, what validity means, how to know if one has achieved an acceptable level of validity, how to address validity in research terms and how validity enters design, inferences and conclusions. Content validity refers to the instrument must show that fairly and comprehensively covers the domain or item that is purport to cover. In order that the test had content validity, the reseacher devised the test accordance with the purpose of the test that is so measure students` dificulties in reading comprehension.

Tabel 3.4 Specification of test item

Objective	Material	Indicator	Number of Question 1-35 items
		The Aspect of Reading Comprehension	**Reading test**
To detemine wheter the Question-Answer Relathionship (QAR) Strategy can Improve Students' Reading Comprehension Ability on Recount Text at Second Grade of SMP Negeri 21 OKU	Recount text; - Definition and Purpose of recount text - Generic stuctures of recount text - Language features of recount text - Types of recount text Assessments, Knowledge vs Skill	Identify of the main idea in the recount text.	1, 11, 21, 29, 31
		Identifying the information in a recount text.	2, 3, 4, 6, 7, 8, 12, 13, 14, 15, 18, 19, 20, 24, 25, 26, 32, 33
		Identify the purpose of recount text.	5, 23, 30
		Identify the generic structure of recount text.	17, 27, 35
		Understanding the meaning of difficult vocabulary in recount text	28, 34
		Identifying the pronouns in a sentence	10
		Identify the kind of text	9, 16, 22
Total			35 items

The researcher validated the criteria by distributing the research instrument tryout in class VIII C with 26 students with the consideration that the class has the same criteria as expriment class in term of similarities curiculum on April 3rd 2023. After tryout the instrument, the researcher calculated class has the same criteria as expriment class in term of similarities curiculum. After tryout the instrument, the researcher calculated class has the same criteria as expriment class

in term of similarities curiculum. After try-out instrument test, the researcher calculated it by using SPPS 26 program and the researcher saw Correlation Pearson to know the item of instruments valid or invalid. The reseacher determined the significance level of this test was 5% significance table from the confidence interval 95% and the value r_{teble} of this test was 0,388 with (df= N-2=24). The criteria of Correlation Pearson thus were;

a. If $r_{count} > r_{table,}$ the item was valid.

b. If $r_{count} < r_{table,}$ the item was invalid.

The result of the validity test of research instrument (test) could be seen on the table follows;

Table 3.5 The result of validity test item

No	Number of item	r_{count}	r_{table}	Conclusion
1	Item 1	0,749	0,388	Valid
2	Item 2	0,537	0,388	Valid
3	Item 3	0,560	0,388	Valid
4	Item 4	0,035	0,388	Invalid
5	Item 5	0,020	0,388	Invalid
6	Item 6	0,855	0,388	Valid
7	Item 7	-0,245	0,388	Invalid
8	Item 8	0,043	0,388	Invalid
9	Item 9	0,004	0,388	Invalid
10	Item 10	0,459	0,388	Valid
11	Item 11	0,941	0,388	Valid
12	Item 12	0,802	0,388	Valid
13	Item 13	0,833	0,388	Valid
14	Item 14	0,006	0,388	Invalid
15	Item 15	0,866	0,388	Valid
16	Item 16	0,773	0,388	Valid
17	Item 17	0,913	0,388	Valid
18	Item 18	0,379	0,388	Invalid
19	Item 19	0,941	0,388	Valid
20	Item 20	0,754	0,388	Valid

21	Item 21	-0,316	0,388	Invalid
22	Item 22	0,063	0,388	Invalid
23	Item 23	-0,140	0,388	Invalid
24	Item 24	0,680	0,388	Valid
25	Item 25	0,773	0,388	Valid
26	Item 26	0,644	0,388	Valid
27	Item 27	0,583	0,388	Valid
28	Item 28	0,832	0,388	Valid
29	Item 29	-0,268	0,388	Invalid
30	Item 30	0,187	0,388	Invalid
31	Item 31	0,129	0,388	Invalid
32	Item 32	-0,82	0,388	Invalid
33	Item 33	0,742	0,388	Valid
34	Item 34	0,633	0,388	Valid
35	Item 35	0,052	0,388	Invalid

Based on table 3.5 show that there were twenty item valid with $r_{count} > r_{table}$, (item 1, item 2, item 3, item 6, item 10, item 11, item12, item 13, item 15, item 16, item 17, item 19, item 20, item 24, item 25, item 26, item 27, item 28, item 33, item 34) and other 15 item was invalid because $r_{count} < r_{table}$. So, the researcher used 20 item valid as research instrument to pre-test and post-test.

2. Reliability

Reliability refers to the consistency of test scores. Cohen, et.al (2018, p.268) stated that reliability is essentially an umbrella term for dependability, consistency and replicability over time, over instruments and over groups of respondents. Reliability is concerned with precision and accuracy: some features, for example, height, can be measured precisely, whilst others, for example, musical ability, cannot. For research to be reliable it must demonstrate that if it were to be carried out on a similar group of respondents in a similar context (however defined), then

similar results would be found.

In this research, to saw reliability of reading test, the researcher conducted a test which consists of 35 multiple choice question. The aspect of reading comprehension on recount text are determining main idea, finding specific information, identifying purposes, generic structure, understanding vocabulary, identifying pronouns in a sentence, identifying type of text.

Table 3.6 Cronbach Alpha Value And Interpretation

Cronbach Alpha Value	Interpretation
0,90 and above	Excellent
0,80 - 0,89	Good
0,70 - 0,79	Acceptable
0,60 - 0,69	Questionable
0,50 - 0,59	Poor
<0,50	Uncceptable

According to Ghozali (2013, p. 38) a construct or variable is said to be reliable if it gives a Cronbach Alpha Value > 0,70. Therefore, the reseacher used 0,70 criteria to know wheter the test reliable or not.

To know whether the test items were reliable or not, the reseacher concluded two hypotheses as follows :

a) If the Cronbach`s Alpha Point is more than 0,70 it mean that the items are reliable.

b) If the Cronbach`s Alpha Point is less than 0,70 it mean that the items are not reliable.

The result of the reability test of research instrument (test) could be seen on table bellow;

Table 3.7 Case Processing Summary

Case Processing Summary			
		N	**%**
Cases	Valid	26	100,0
	Excluded[a]	0	,0
	Total	26	100,0
a. Listwise deletion based on all variables in the procedure.			

Based on the table 3.7, show that the cases valid are 26 students, excluded 0, and the total of students follow the trial test was 26 students with percentage 100%.

Table 3.8 Reability Statistics

Reliability Statistics	
Cronbach's Alpha	**N of Items**
,815	35

Based on table 3.8, show that Cronbach's Alpha was 0,815, and number of items was 35 item. The score obtained of Cronbach's Alpha was 0,815 more than 0,70, it means that the test was reliable.