CHAPTER III

RESEARCH METHOD

A. Research Design

Research methods in education are often divided into two types: quantitative and qualitative methods. Aliaga and Anderson in Muijs (2004:1) explained that quantitative research is used to explained the phenomena by collecting numerical data that are analyzed using mathematically based methods (in particular statistic). Based on this explanation, then this research includes into quantitative methods. Meanwhile, the design of this research is a correlational research.

Correlation refers to the association of variables studied on the resarch. According to Anderson and Arsenault (2005: 118) , correlational research is one way of describing in quantitative terms the degree to which variables are related. Typically, correlational study investigates a number of variables, which are associated to an important variable. The number of variables associated often depends on the researcher. In this case, this research was designed to examine the relation between two variables. The two variables correlated were students' frequency of watching Englis movies as variable X and Vocabulary mastery as variable Y. Variable X referred to independent variable while variable Y referred to dependent variable. The asociation between variables can be positive or negative relationship.

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B. The Time and Location of the Research

This research was conducted at State Senior High School Pekanbaru 14 Pekanbaru,located at Jalan Tengku Bey,Sei Mintan 1 Bukit Raya. This research was carried out on March in 2017.

C. The Subject and Object of the Research.

1. Subject of the Research

The subject of this research was the second grade students of State Senior High School 14 Pekanbaru, in the 2017/2018 Academic year.

2. Object of the Research.

The object of this research was the correlation between the students' frequency of watching English movies and their vocabulary mastery.

3. The Population and Sample of the Research

In conducting a research, it is important for the researcher to know the number of the target population. According to Mujis (2004: 37), the population is the group that the writer want to generalize her findings. Generalization is a way to take a conclusion to group of indicividual that have amount narrower. Then, the population of this study referred to the eleventh grade students of State Senior High School 14 Pekanbaru in 2016/2017 academic year.

Table III.1

**The Total of Population of Second grade students
at State Senior High School 14 Pekanbaru**

No.	Class	Populations		Total sample
		Male	Female	
1.	XI IPA 1	14	16	30
2.	XI IPA2	13	18	31
3.	XI IPA3	15	17	32
4.	XI 1PA 4	12	18	30
5.	XI 1PS 1	13	17	30
6.	XI IPS 2	17	13	30
7.	XI IPS 3	17	13	30
	Total	101	100	212

Considering that population of this research is bigger, thus, the writer will take the sample of the population. In this research, the writer will use random sampling technique. According to Creswell, John W (2008: 143) said that random sampling is the researcher selects particixpants (or units, such as schools) for the sample so that any individual has an equal probability of being selected from the population. The intent of simple random sampling is to choose individuals to be sampled who will be representative of the population. If the research subject less than 100 is better to take all of it. So, it is regarded as a population research. But if the resarch subject more than 100, the researcher can take 10-15% or 20-25% from the population, Arikunto (2006: 134). In this research, the population is bigger than 100 persons; the sample is taken for 15%. The writer will take 31 students from the total number of population.

D. The Technique of Collecting Data

In this research, the writer carried out two instruments to collect the data containing questionare and vocabulary test. In order to get the needed data of what this research concerns about, the writer applied the following techniques:

1. Questionnaires

Questionnaire is the number of written questions that used to acquire information form the respondents, Arikunto (2006: 151). There are two kinds of questionnaire, they are open and enclosed questionnaire. In this case, the writer used enclosed quetionnaire. Enclosed quetionnaire is that prensented in a form such that the respondents were asked to choose one answer that suits the characteristics of them by giving the sign (x) or checklist(√). The writer used the quetionnaire to get the data about students' frequency of watching English movies.The writer categorized the score resulted of quetionnnaire data or also called independent variable (X) into the following criteria , Sugiyono (2008: 94).

Frequency of Watching English Movies	Score
Never	1
Seldom	2
Sometimes	3
Often	4
Always	5

In this research, the items of the questionnaire consisted of 20 questions items. It can be seen in the following table:

Table III.2

Blue Print of Students' Frequency English Movies

No	Indicators	Questionnaire Items
1	The Repetitive action	1,2,17, 18,19
2	Paying the attention to the characters, the characters' movement and the subtile	3,5,12,13,15
3	Absorb Information	4,7,8.9,11,
4	Being Entertained, amused,/andenlightened	6,10,14, 16,20,

2. Test

Test is a series of questions or exercises that are used to measure the skills of knowledge, intelligence, or ability or aptitude of the individual or group, Riduwan (2009: 30). There are several kinds of test instrument data collection, include: personality tests, aptitude test, achievement tests, intelligence test, and test attitude. In this research, the achievement test is used to measure students' vocabulary mastery. This test is in the form of multiple choice tests that consist of alternative answer. There are 25 questions items in multiple choice to measure students' vocabulary.It can be seen in the following table, Nation in Ummi Kulsum (2016):

Table III.3

Bllue Print of Students' Vocabulary Test

No	Indicators	Test Items
1	The students are able to differentiate of synonyms and antonyms.	1, 2, 3, 4, 5
2	The students are expected to be able to find out the meaning of the words.	6, 7, 8, 9, 10
3	The students are expected to be able to use appropriate choice of words	11, 12, 13, 14, 15
4	The students can identify of word elements such as prefixes, suffixes and roots.	16, 17, 18, 19, 20
5	The students are able to know about part of speech (especially noun, verb and adjective	21, 22, 23, 24, 25

Meanwhile, the students' vocabulary test is also called dependent variable (Y) are classified into the following criteria, Arikunto (2006; 245):

Criterion	Score
Excellent	81-100
Good	61-80
Fair	41-60
Poor	21-40
Very Poor	0-21

E. Validity and Reliability

To obtain the data from the respondents, the writer made try out the questionnaire to determine the validity and reliability of the instruments.

1. Validity of Students' Frequency of Watching English Movies

Table III.2

Items	r count	r critical	Status
1	0.592	0.468	Valid
2	0.73	0.468	Valid
3	0.758	0.468	Valid
4	0.721	0.468	Valid
5	0.66	0.468	Valid
6	0.64	0.468	Valid
7	0.612	0.468	Valid
8	0.468	0.468	Valid
9	0.655	0.468	Valid
10	0.719	0.468	Valid
11	0.613	0.468	Valid
12	0.663	0.468	Valid
13	0.559	0.468	Valid
14	0.489	0.468	Valid
15	0.557	0.468	Valid
16	0.528	0.468	Valid
17	0.562	0.468	Valid
18	0.502	0.468	Valid
19	0.633	0.468	Valid
20	0.468	0.468	Valid

To analyze the validity of the instrument for language learning strategies, the researcher also conducted a try-out to 20 students. The items are valid if the r count is higher than r table at 5% significance levelwithdf = N-2. Therefore, based on the table III.4 above, the r count for each item

is higher than and few are equal to r table, the r table df = 18 (df = 20-2) was 0.468. It was obvious that all of the items were valid because the r count(s) were higher than r table 0.468 which means the questionnaire can be used to collect the data for students' language learning strategies and continue the research.

2. Validity of Vocabulary test

Test as the instrument to measure students' vocabulary mastery in narrative text should be valid. As an instrument that measures the students' achievement, it must have content validity. Sugiyono (2011:140) explained that an instrument that has content validity must be arranged based on the material that has been taught by the teacher. To analyze the validity of test, Suharsimi (2011:208) provided the formula to deteminethe difficulty of each item and the guidelines of the standard difficulty level as follow:

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

Where,   P   : index of difficulty or facility value

B   : the number of correct answers

JS   :the number of examines or the students

The standard level of difficulty used is > 0.30 and < 0.70. It means that the item test that accapted if the level of difficulty is between 0.30-0.70 and it is rejected if the level of difficulty is below 0.30 (too difficult)

and over 0.70 (too easy). Then, "P" represents the proportion correct, wheares "Q" represents the proportion incorrect. To determine whether the instrument of vocabulary mastery is valid or not, then, the writer did a try out to 20 students who were not included as the sample of the research. The validity of this instrument is represented based on the indicators in the following tables:

Table III.4

The students are able to differentiate of synonyms and antonyms.

Indicator	The students are able to differentiate of synonyms and antonyms					JS
Item No	1	2	3	4	5	
Correct item (B)	13	12	11	13	13	20
P	0.65	0.60	0.55	0.65	0.65	
Q	0.35	0.40	0.45	0.35	0.35	

$P = \frac{B}{js}$ $\qquad\qquad$ Q =1.00-P

Based the table III.3, the items number for the students are able to differentiate of synonyms and antonyms were 1,2,3,4,5. The proportion of correct answer for item number 1 showed that proportion of correct 0.65, item number 2 showed the proportion of correct 0.60, item number 3 showed the proportion of correct 0.55, item number 4 showed the proportion of correct 0.65, and item number 5 showed the proportion 0.65. Based on the standard of difficulty, "P" > 0.30 and < 0.70, all items of this indicators were accepted.

Table III.5

The students are expected to be able to find out

the meaning of the words

Indicator	The students are able to differentiate of synonyms and antonyms					JS
Item No	6	7	8	9	10	
Correct item (B)	11	12	11	13	13	20
P	0.55	0.6	0.55	0.65	0.65	
Q	0.45	0.4	0.45	0.35	0.35	

$$P=\frac{B}{js}$$
$$Q= 1.00-P$$

Based on the table.III.4, the items were number for analyzing the students are expected to be able to find out the meaning of the words were 6,7,8,9, and 10. The proportion of correct answer for item number 6 showed the proportion of correct 0.55, item number 7 showed the proportion of correct 0.60, item number 8 showed the proportion of correct 0.55, item number 9 showed the proportion of correct 0.65, item number 10 showed the proportion of correct 0.65. Based on the standard level of difficulty, "P" >0.30 and < 0.70, all items of this indicator were accepted.

Table.III.6
The students are expected to be able to use
appropriate choice of words.

Indicator	The students are expected to be able to use appropriate choice of words					JS
Item No	11	12	13	14	15	
Correct item (B)	13	12	11	13	10	20
P	0.65	0.60	0.55	0.65	0.50	
Q	0.35	0.40	0.45	0.35	0.50	

$P = \frac{B}{js}$ $\qquad\qquad\qquad\qquad$ Q = 1.00-P

Based on the table III.5, the items number for analyzing the students are able to use appropriate choice of words were 11, 12, 13, 14, 15. The proportion of correct answer for item number 11 showed the proportion of correct 0.65, item number 12 showed the proportion of correct 0.60, item number 13 showed the proportion of correct 0.55, item number 14 showed the proportion of correct 0.65, item number 15 showed the proportion of correct 0.50. Based on the standard level of difficulty, "P" > 0.30 and < 0.70, all items of this indicator were accepted.

Table III.7
The students can identify of word elements such as prefixes,
suffixes and roots.

Indicator	The students can identify of word elements such as prefixes, suffixes and roots.					JS
Item No	16	17	18	19	20	
Correct item (B)	10	12	11	11	10	20
P	0.50	0.60	0.55	0.55	0.50	
Q	0.50	0.40	0.45	0.45	0.50	

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

$Q = 1.00 - P$

Based on the Table III.6, the items number for analyzing the students can identify of word elements such as prefixes, suffixes and roots were 16,17,18,19,20. The proportion of the correct answer for item 16 showed the proportion of correct 0.50, item number 17 showed the proportion of correct 0.60, item number 18 showed the proportion of correct 0.55, item number 19 showed the proportion of correct 0.55, and item number 20 showed the proportion of correct 0.50. Based on the standard level of difficulty, "P" > 0.30 and < 0.70, all items of this indicator were accepted.

Table III.8
The students are able to know about part of speech
(especially noun, verb and adjective).

Indicator	The students are able to know about part of speech (especially noun, verb, and adjective).					JS
Item No	21	22	23	24	25	
Correct item (B)	13	12	11	10	10	20
P	0.65	0.60	0.55	0.50	0.50	
Q	0.45	0.40	0.45	0.50	0.50	

$P=\frac{B}{js}$ $Q = 1.00-P$

Based on the table III.7, The items number for analyzing the students are able to knoe about part of speech (especially noun, verb and adjective) were 21, 22, 23, 24, 25. The proportion of correct answer for item number 21 showed the proportion of correct item 0.65, item number 22 showed the proportion of correct item 0.60, item number 23 showed the proportion of correct item 0.55, item number 24 showed the proportion of correct item 0.50, and item number 25 showed the proportion fo correct item 0.50. Based on the standard level of difficulty , "P" > 0.30 and < 0.70, all items of this indicator wer accepted.

3. Reability

Reliability refers to the consistency of the instrument which is tested to the similar group and context. Cohen et al (2007:146) explain that reliability in quantitative research is essentially a synonym for dependability, consistency, and stability over time, instrument and groups of respondents. Reliability in quantitative analysis takes two main forms, both of which measures of internal consistency: the split-half technique and the alpha coefficient. Both calculate a coefficient of reliability that can lie between 0 and 1. Cohen et al (2007:506) provide the following guidelines for the coefficient:

Table III.9
The Level of Reliability

No	Reliability	Level of Reliability
1	>0.90	Very Highly Reliable
2	0.80-0.90	Highly Reliable
3	0.70-0.79	Reliable
4	0.60-0.69	Minimally Reliable
5	<0.60	Unacceptably Low Reliable

Furthermore, to obtain the reliability of both questionnaires, the researcher calculated by using SPSS 22.0 program version in order to find out whether the questionnaires were reliable and could be used for this research or not.

Table III.10
Reliability Analysis of Students' Frequency of watching English movies

Cronbach's Alpha	N of Items
,863	20

Based on the table III.6 above, the value of Cronbach Alpha was 0.863 which based on the level of reliability belonged to highly reliable. It can be interpreted that the questionnaire of students' frequency of watching English movies was reliable and could be used for collecting the data and continue the research.

Table III.11
Reliability Analysis of Students' vocabulary test

Cronbach's Alpha	N of Items
,903	25

Based on the table III.7 above, the value of Cronbach Alpha was 0.908 which based on the level of reliability belonged to very highly reliable. It can be interpreted that the questionnaire of language learning strategies was reliable and could be used for collecting the data and continue the research.

F. Technique of Analyzing Data

To analyze the data, the writer used the score of questionnaire and vocabulary test. The data of questionnaire were calculated by summing each of score in the answer option which was score 1 for *never*, 2 for *seldom*, 3 for *sometimes*, 4for *often*, and 5 for*always*. The maximum score for ther questionnaire were 100. The category for the score of The frequency of watching English movies can be seen in the table below:

Table III.12
The category of students's frequency of watchingEnglish movies

Score	Category
≤ 20	Very Low
21 – 40	Low
41 – 60	Sufficient
61 – 80	High
81 – 100	Very High

Based on the table III.II above, the category was applied for students' frequency on watching English. The students were categorized very low when they obtained score less than and equal to 20, the students were categorized low when they obtained score in the range of 21 to 40, the students were categorized sufficient in when they obtained score in the range of 41 to 60, the students were categorized high when they obtained score in the range of 61 to 80, and the students were categorized very high when they obtained score in the range of 81 to 100.

Meanwhile, the score of vocabulary test can be calculated by summing the correct answers of each item, which the score for correct

answers is 1 and 0 for false answer. The data collection of vocabulary test is calculated by using the formula below:

$$S = \frac{R}{N} \text{ x } 100\%$$

Where: S = Individual Score

R = Number of Correct Answer

N = Number of items

The score of each respondent can be interepted based on the following table:

Table 111.13
The category of students' vocabulary test

Criterion	Score
Excellent	81-100
Good	61-80
Fair	41-60
Poor	21-40
Very Poor	0-21

Furthermore, the two sets data were analyzed by using *Pearson Product Moment Correlation Coefficient* (r) through spss16.0 version program. The interpretation of the strength of association between variables was based on Cohen's idea as represented in the following table (Pallant, 2001, p.120):

Table III.14
The Strength of Correlation

No	Value (r)	Description
1	0.10 to 0.29	Small
2	0.30 to 0.49	Medium
3	0.50 to 1.0	Large

The table III.13 above gives the guideline in interpreting the level of relationship between variable x and variable y. The value of r coefficient 0.10 to 0.29 represented small correlation between x and y, the value of r coefficient 0.30 to 0.49 represented medium correlation between x and y, and the value of r coefficient 0.50 to 1.0 represented the large correlation between x and y. Therefore, by analyzing the strength of association on Product Moment (r) output, the wrtiter assessed the importance of her findings.