CHAPTER III

RESEARCH METHOD

In chapter 3 of this research method, the researcher examine the processes of this research, including research design, population and sample, research instrument, data collection, and data analysis for this study.

3.1 Research Design

The research design for this study using quantitative techniques. Quantitative research is an inquiry of a social problem that tests a theory composed of variables that are measured numerically and examined statistically to discover whether the theory's predicted generalizations are valid (Creswell, 1994). A quantitative approach develops science primarily using a postpositivist paradigm (thinking about cause and effect, reduction to variables, hypotheses and specific questions using measurement and observation, as well as theory testing), and employs research strategies such as experiments and surveys that require statistical data (Emzir, 2009:28). Quantitative research is the process of discovering knowledge by using numerical data as a tool to assess information about what you want to know (Kasiram, 2008). This research uses experimental research, the experimental research method is a quantitative method used if the researcher wants to experiment to find the effect of the independent variable on the dependent variable under controlled conditions (Abdullah et. al., 2021). To experiment is to try, to look for, to confirm (Fraenkel and Wallen 2009). Use an experiment when you want to establish a possible cause and effect between independent and dependent variables. This means that you attempt to control all variables that influence the outcome except for the independent variable (Creswell, 2012).

3.2 Population and Sample

3.2.1 Population

The subjects were first-year and third-year English students, in which reading lessons took place. The population of this study was 47 English students, consisting of 9 men and 38 women. The researcher chose subjects from the first and third semesters, for the first semester to examine the extent of their reading skills, and for the third semester to examine whether in the previous semester their reading skills had experienced significant development.

3.2.2 Sample

For this study, a total sampling technique was employed to select the research sample. The entire population of first-semester and third-semester English students, consisting of 47 individuals, was included in the study as they are all accessible. The study utilized a questionnaire adapted from Bright and Loman (2020) and a standardized test based TOEFL.

3.3 Research Instrument

The research design for this study adopts quantitative techniques. To address Research Question #1, a quantitative method was employed using questionnaire and score measurements from a standardized test-based TOEFL.

For Research Question #2, a quantitative approach was utilized, A questionnaire adapted from Bright and Loman (2020) assesses reading motivation and collecting questionnaire data to assess intrinsic motivation levels in male and female students.

For Research Question #3, a quantitative method was employed using a questionnaire. A questionnaire adapted from Bright and Loman (2020) assesses reading motivation, to analyze feature on intrinsic motivation has influence on the development of the subject's reading skills

3.4 Data Collection

The data collection procedure for this study involve multiple stages to address the research questions comprehensively.

Firstly, for Research Question #1, score measurements were conducted using standardized test to assess students' reading skill scores and questionnaire data was collected using the Reading Motivation Questionnaire developed by Guthrie and Wang (2004) and adapted by Komiyama (2013) to assess reading motivation on the subject. Standardized tests are defined as “any examination that is administered and scored in a predetermined, standard manner.” (Popham (1999), p 1). In this study using standardized test based TOEFL, reading comprehension section has 20 multiple-choice questions, with 8–10 questions for each passage of 200–300 words. Although the questions are different, they often center on the primary ideas, vocabulary, pronouns, inferences, and expressed or unspoken information. To prevent bias toward particular ideas, the topics covered in each paragraph are diverse in nature (ETS, 2000, p. 8). Data collected from the questionnaire and standardized test was analyzed using appropriate statistical methods, such as Bivariate Correlation, to identify any correlation between Intrinsic Reading Motivation on Reading Skill Improvement.

For Research Question #2, a quantitative approach was utilized, and questionnaire data was collected using the Reading Motivation Questionnaire developed by Guthrie and Wang (2004) and adapted by Komiyama (2013). This questionnaire consists of 16 items on a Likert scale with two response options: “agree” and “disagree.”. The Reading Motivation Questionnaire originally contains 8 domains: Curiosity, Involvement, Competition, Compliance, Grades, Recognition, Social sharing, and Challenge. However, for this study, researchers focus on three domains: preference for challenge, curiosity, and involvement. The questionnaire was administered at the beginning and end of the semester to assess the levels of intrinsic

motivation in male and female students. Data collected from the questionnaire was analyzed using appropriate statistical methods, such as t-tests or ANOVA, to identify any significant differences in intrinsic motivation between.

Lastly, for Research Question #3, quantitative data was gathered through questionnaire to explore features intrinsic motivation on development of reading skill subjects during reading learning. Bivariate Correlation analysis is used to analyze factors Intrinsic Motivation has influence on Reading Skill Improvement.

3.4.1 Validity & Reliability

3.4.1.1 Validity

Table 3.4.1.1 Total Validity

ALL QUESTIONS	P. CORRELATION
Q1	0.559
Q2	0.281
Q3	0.299
Q4	0.433
Q5	0.480
Q6	0.329
Q7	0.383
Q8	0.449
Q9	0.437
Q10	0.565

Q11	0.399
Q12	0.578

The results of the validity of the questionnaire given to 47 subjects based on the R table exceeded the value of the R table. There is one variable that has an invalid value, namely question number two, where the R value in the table above must be more than 0.288 and the validity value of question number two, namely 0.281, which has a value of less than 0.288.

3.4.1.2 Reliability

Table 3.4.1.2 Total Realibility

Cronbach's Alpha value
0.602

The reliability results of the questionnaire test given to 47 subjects were reported to have a Cronbach's Alpha reliability of 0.602 with a total of 12 items, which means it has a high level of internal consistency because the reliability value is more than 0.05, while the questionnaire is an adapted source from Komiyama (2013) and the questionnaire was adapted again by Bright & Loman (2020).

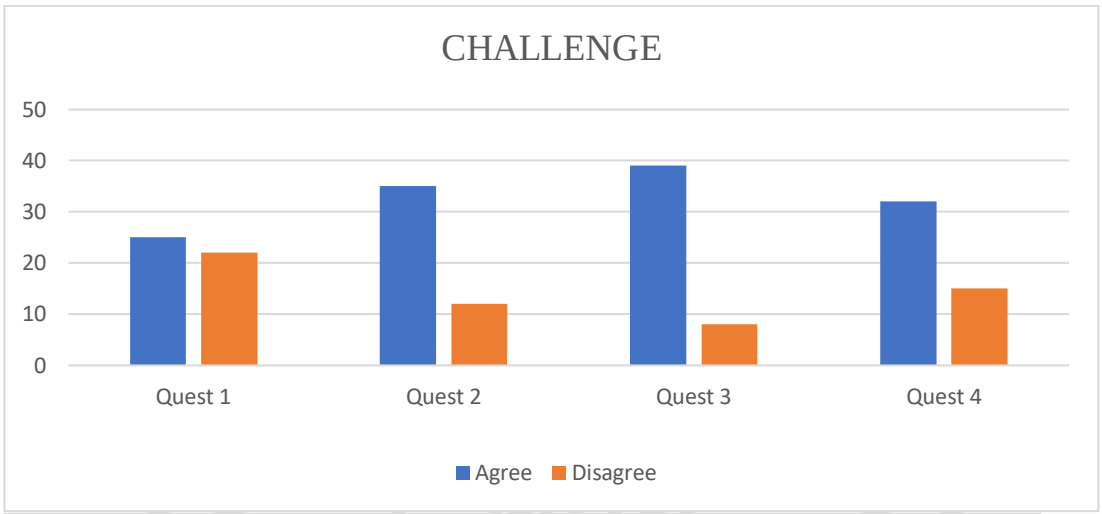
3.4.1.3 Mean & Standard Deviation

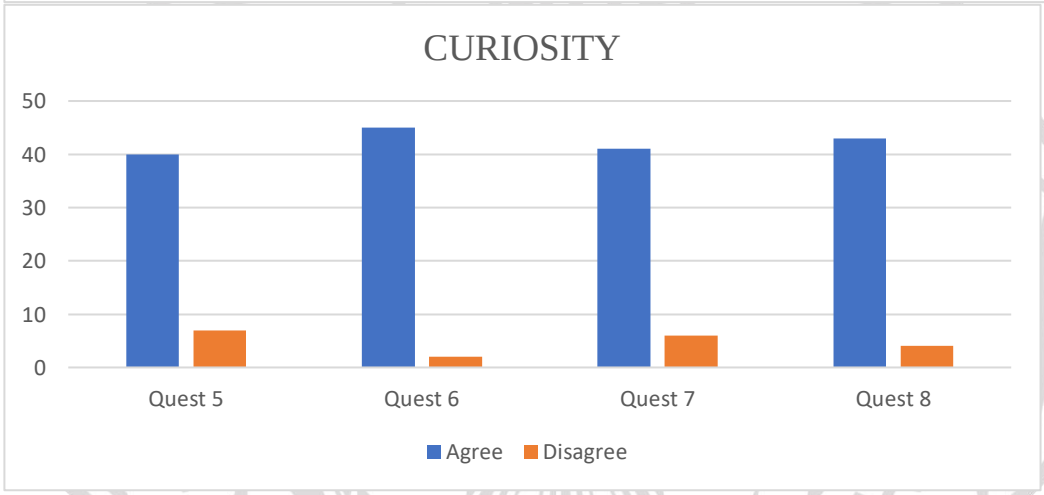
Table 3.4.1.3 Table Mean & Standard Deviation

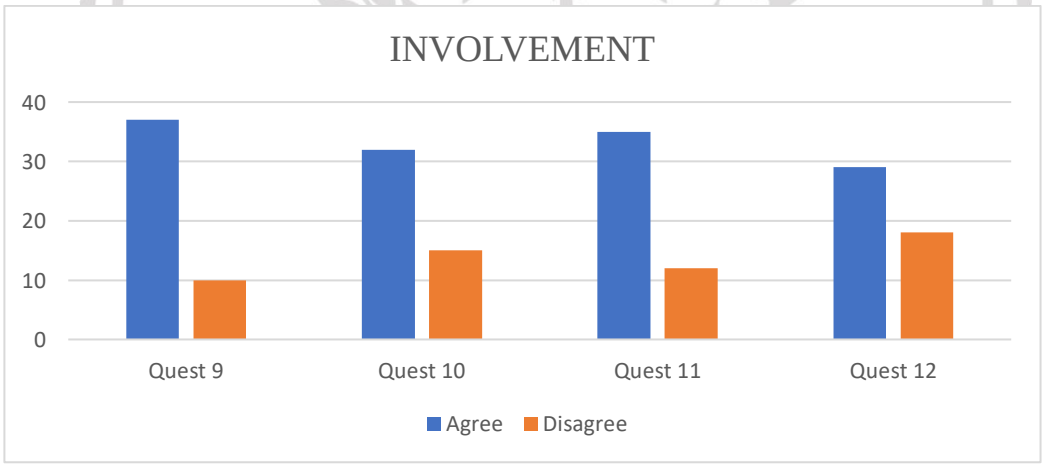
ALL QUESTION	**MEAN**	**STANDARD DEVIATION**
Q1	.5745	.49977
Q2	.7234	.45215
Q3	.8298	.37988
Q4	.6809	.47119

Q5	.8511	.35987
Q6	.9574	.20403
Q7	.8723	.33732
Q8	.9362	.24709
Q9	.7872	.41369
Q10	.6809	.47119
Q11	.7447	.44075
Q12	.6170	.49137

In the table above, the lowest mean value is for question number 1 (M: 0.5745) and the highest is for question number 6 (M: 0.9574). The lowest standard deviation value is for question number 6 (SD: 0.20403) and the highest is for question number 1 (SD: 0.49977)







As can be seen there are invalid results from question number 2 with the sentence "If a book is interesting, I don't care how hard it is to read" with results of

74.5% (Agree) and 25.5% (Disagree). Another question like Q1 “I like hard, challenging books” has result 53,2% (Agree) and 46,8% (Disagree), Q3 “I like it when the questions in books make me think” 83% (Agree) and 17% (Disagree), Q4 “I usually learn difficult things by reading” 68,1% (Agree) and 31,9% (Disagree). As for the details above, it can be said that the subject has a significant level of looking at question 1, the results of the question have an almost even level of "agree" and "disagree" and for question 3 they have high results in terms of the "challenge" section.

As for the "curiosity" section, it shows significant results considering that the subjects have curiosity about the source of the books they like. In Question 5 has result 83% (Agree) & 17% (Disagree), Question 6 has 95,7% (A) & 4,7 (D), Question 7 has 87,2% (A) & 12,8% (D), Question 8 has 91,5% (A) & 8,5% (D). It can be seen from the results above, showing high results for the "curiosity" of subjects in books, which have questions like “ I have favorite subjects that I like to read about”, “I read to learn new information about topics that interest me”, “I like to read about my hobbies to learn more about them”, “I like to read about new things”. Which means the subject still has a high level of curiosity about books, both physical books and e-books.

In the "involvement" section has significant results considering that in this section the subject is involved in reading activities and sharing activities with other subjects, Question 9 has 78,7% (A) & 21,3% (D), Question 10 has 68,1% (A) & 31,9 (D), Question 11 has 74,5% (A) & 25,5% (D), Question 12 has 61,7% (A) & 38,3% (D). In the details above, a high number is shown considering the "involvement" section, the subject has a role in being involved in reading activities, this can be seen from questions 9 to question 11 which have the highest level of "agree", as for question 12 "I feel like I make friends with people in good books" is mostly dominated by "agree" even though the subject chooses "disagree" due to preferences for the books they read.

3.5 Data Analysis

For data analysis, quantitative approach was adopted to analyze the data collected for each research question.

For Research Question #1, the quantitative data obtained from the questionnaire and score measurements were analyzed using correlation analysis. This analysis helps to examine any correlate between the reading motivation questionnaire and reading skill.

For Research Question #2, the quantitative data collected from the questionnaire that applied the Reading Motivation Questionnaire developed by Guthrie and Wang (2004) and adapted by Komiyama (2013). The Reading Motivation Questionnaire originally contains 8 domains: Curiosity, Involvement, Competition, Compliance, Grades, Recognition, Social sharing, and Challenge. However, for this study, focus on three domains: preference for challenge, curiosity, and involvement. This questionnaire itself was analyzed using appropriate statistical methods, such as t-tests or ANOVA, to identify any significant differences in intrinsic motivation between male and female students.

For Research Question #3, the quantitative data was gathered from the questionnaire and analyzed using Correlation analysis. This approach enables the identification factors intrinsic motivation students had influence on reading skill improvement students.