CHAPTER III
RESEARCH METHODOLOGY

In this chapter, the writer would like to find out the students’ perceptions on group-based game making to learn descriptive writing and the correlations between the students’ gender and gaming skill with their interest in creating a game for different writing genres and their difficulty in creating the game itself. To address the aforementioned matter, the writer employed quantitative method using descriptive statistics analysis. According to Babbie (2007), quantitative method is a method which uses numerical representations and manipulation of observations, the purpose of which is to describe and explain the phenomena that the aforementioned observations reflect. Furthermore, Johnson (1992) stated that quantitative method is not similar to qualitative method for it emphasizes more on the systematic measurement and quantification of variables, statistical analysis of the quantitative data, and the usage of mathematical models and causal inference. Quantitative data are any data represented in numerical form such as statistics, percentages, etc (Given, 2008). According to Cohen, Manion, & Morrison (2007), descriptive statistics are a method that describes and present data in the terms of summary frequencies that includes several aspects such as mode, mean, median, minimum and maximum scores, range, variance, standard deviation, standard error, skewness, and kurtosis. Descriptive statistics does not make any
inferences or predictions, it simply report what has been found, in a variety of ways.

For this research, the writer used quantitative method. Based on the objective of this research, the writer chose to use a descriptive statistics to find out the students’ perceptions on group-based game making to learn descriptive writing. Also, the writer would like to find out whether or not there are correlations between the background question 4 (game playing ability) with statement 2 (creating the game is easy for me) and background question 1 (gender) with statement 5 (I am interested in creating a game for different writing genre) using Kruskall-Wallis test in SPSS.

3.1 METHOD OF DATA COLLECTION

3.1.1 Participants

The participants of this research were the freshman of the Faculty of Language and Arts. The population of the participants is 65 students. The writer recruited all of them to the workshop but there were only 24 students who were voluntarily willing to come. The reason why the writer chose the participants was because the students just started to learn and practice descriptive writing in English writing class.

3.1.2 Instrument

In collecting the data needed for the research, the writer used instrument to achieve the research’s goals. The instrument to collect the data in this study
are questionnaire. Questionnaire is a series of questions which are utilized to collect data or information needed from the respondents involved (Creswell, 2003). The writer used the questionnaire from Christanti, Sanjaya, & Murniati’s study (2016) that was modified slightly in order to match it with the purpose of this research and a game-creator software called RPG Maker MV.

The questionnaire was about the students’ perceptions on group-based game making to learn descriptive writing. According to Cohen, Manion & Morrison (2007), there are two kinds of questionnaire:

1. Close-ended questionnaire: prescribe the range of responses from which the respondent/participants may select.
2. Open-ended questionnaire: could be used if there is an excessive amount of possible categories which a close-ended questionnaire would contain an extremely long list of response options.

The questionnaire that the writer used for this research was close-ended questionnaire and it consisted of seven background questions and 18 statements. Four response options are provided in the questionnaire, ranging from:

- 4 (Strongly Agree)
- 3 (Agree)
- 2 (Disagree), and
- 1 (Strongly Disagree)
The questionnaire used was already in English because the participants of this research were the students of the Faculty of Language and Arts so the writer saw it unnecessary to transcribe it.

The game-creator software, RPG Maker, is a program that enables its users to create their own RPG (role-playing video games). Most of it has a tile set based map editor, a simple scripting language for scripting events/dialogue, and a battle editor included. All RPG Maker releases have initial premade tilesets, characters, and events that can be utilized in creating new games. Also, for the PC version, users could add new tilesets and characters, including new graphics, should they want to. RPG Maker MV is the latest series of RPG Maker programs. It has been greatly improved from the earlier releases, and it has multi-OS support, side-view battles and high resolution support. RPG Maker MV is the first engine in the series to use Javascript with plugin additions. Also, completely created games can be played on a mobile device.

3.1.3 Research Procedure

In this section, the writer would like to elaborate the procedure of this research.

1. Firstly, the writer modified the questionnaires from Christanti, Sanjaya, & Murniati’s study (2016), entitled Developing Educational Game for Collaborative Learning. The writer edited and deleted some parts of the question in order to meet the writer’s need for this
research’s results. For example, the writer changed the addition of ‘descriptive writing subject’ emphasis in some of the questions. One example of it is the question ‘Do you agree that a game meets your needs for learning a subject?’ is edited into ‘Do you agree that a game meets your needs for learning descriptive writing skill?’

2. Second, the writer asked for permission from the lecturer(s) of the Faculty of Language and Arts for conducting the workshop.

3. The writer met and informed the students a day prior to the workshop and explained briefly what this research and workshop were about, also the preparations needed for the workshop (laptop/computers).

4. Next, on the workshop day, the writer divided the students into a group of three and gave the students an hour to brainstorm their story ideas. After that, the writer guided them in creating and editing the game step-by-step until they were finished with their work.

5. Then, the writer distributed the questionnaires to the students who had finished their work. The writer also assisted them in filling the questionnaires to make sure that there would be no misunderstanding in filling it.

6. Next, the writer analyzed the data from the questionnaires to find out about the results. The writer analyzed the data quantitatively by using SPSS to calculate the data.

7. Lastly, the writer interpreted the questionnaire results to acquire the final, conclusive data.
3.2 METHOD OF DATA ANALYSIS

The questionnaires were given to the students in class after the workshop was done. The workshop for this research was conducted at Henricus Constant (HC) B.1.3 classroom of the Faculty of Language and Arts. The participants of this research were 65 students of 2016 batch of the Faculty of Language and Arts but only 24 students were present for the workshop. For the workshop, the writer informed the students to bring laptops before the workshop day for installing RPG Maker MV, which was the game used for this research. During the workshop, the writer first explained the students what descriptive writing is about. Then, he asked the students to brainstorm their question ideas for their game for one hour. Next, the writer guided the students during the game installation process, followed by content editing, what should be added, how much questions, what topic and so on. Last was the finalization of the game. The writer asked the students to entitle and test their created game and also their peers’, followed by questionnaire filling to obtain the data.

The data that the writer had got was analyzed based on the descriptive statistics. The analysis of descriptive statistics is consisted of several steps. First is putting the data, second is doing the numerical computations, next is preparing a final display in a table form, an lastly, making some interpretations of the result.

After the students finished filling in the questionnaires, the writer analyzed their answers based on Likert scale for the statements quantitatively by using
SPSS. According to Babbie (2007, p. 171), Likert scale is a type of composite measure developed by Rensis Likert in an attempt to improve the levels of measurement in social research through the use of standardized response categories in survey questionnaire. There are four response options provided, ranging from 4 (Strongly Agree), 3(Agree), 2 (Disagree) and 1 (Strongly Disagree) where 4 (Strongly Agree) is the most favorable answer and 1 (Strongly Disagree) is the least favorable answer. Then, for finding out the correlations between the data from the background questions 4 and 1 with research statements 2 and 5 respectively, the writer will be using Kruskall-Wallis test in SPSS. Kruskall-Wallis test is a nonparametric test which is rank-based that can be used to determine if there are statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable. If the significance ($p$) is lower or equal to 0.05, then the result is considered as valid because it has a statistically significant difference. Otherwise, if the $p$ is higher than 0.05, then the result is not statistically significant.