

## **CHAPTER III**

### **METHODOLOGY**

This chapter presents methodology such as; research design of the study, settings, participants of the study, technique of data collection, and also followed by technique of data analysis.

#### **3.1 Research Design**

This study was qualitative. Creswell (2018) elucidated that qualitative researchers tried to develop a complex picture of the problem or issue under study, the qualitative one concerns with understanding human behavior from the researcher's perspectives (Nunan, 1992). Huda (1999) stated that qualitative research is frequently associated with the technique of analyzing data and writing research reports. Based on the notions above, the researcher then reported the findings and discussion in descriptive ways, thus this belongs to descriptive qualitative. The research explored students' cognitive attitude toward project-based learning used in English language learning especially in working on the syntax challenge project at Syntax B Class of fifth-semester students in the English education department at IAIN Kendari.

### 3.2 Setting and Context

This study was conducted in the fifth semester class of the English education department in IAIN Kendari especially at Syntax B class which was there are 35 students in this class. In this class, learning activities were carried out based on project-based learning which students attempted to accomplish a project for one semester called the Syntax challenge project. Syntax challenge was a project carried out which consists of three activities namely first is daily and weekly project (Wrote sentences minimal three times a week and posted on students' WhatsApp account and wrote weekly journal). The second task, which was as a mid-task, students analyzed the signboard in a public place and presented it in a journal. The third activity that became the final task of the Syntax class was posted students' own writing on their social media account then the students' improvement based on feedback was obtained was reported in the form of a presentation.

Based on the result of the interview with Syntax class lecturer showed that students in the Syntax B class generally stated that they have a positive impression on this project and this was bigger than other fifth-semester Syntax classes. 55% of students' stated that the used project-based learning (PBL) method helped them in learning and they wanted to learn English deeper. It related to the focused of this study because the whole learning process in this class used PBL from the beginning of the meeting to the final assignment used project work. Activities carried out by students in this class based on project work at all. Thus, students have experience learning using PBL in this class.

### 3.3 Participant of the Study

The participants of this study were the fifth-semester students taking Syntax class B in the academic year of 2019-2020. They are majoring in English education department consist of six males and 29 females. They were about from 19 until 23 years old. However, only 31 students who were active in the class. They have undergone at least two years of education in university and commonly have basic knowledge when they were a junior-senior high school student which was English as a mandatory classroom at school. Thus, their experiences in using English are enough even quite a lot. They have experience actually in working on assignments using project-based learning (PBL) so it is not a new thing to them since they have experienced it since in their third semester. Each participant had different learning outcomes in the Syntax class. Based on the information from the lecturer the ability of each participant varies from high achievers to low achievers based on document data by the lecturer. However, most participants indicated that their improvement in learning outcomes in the Syntax class. Through these considerations, these students necessarily could provide a wise description and response to the utilized of PBL in English classroom, within the boundary system on setting in their Syntax class, considering that the whole learning process in this class used PBL from the beginning of the meeting to the final assignment use project work.

### 3.4 Data Collection

To gain information about students' attitude toward project-based learning (PBL) implementation in English instructional context, the researcher used questionnaire and reflection as the instruments of the research. The researcher collected questionnaire in order to gain insight into students' cognitive attitude towards the application of project-based learning (PBL) in English language learning especially their cognitive attitude at all activities in syntax challenge projects generally in their fifth semester. The questionnaire provided as an online survey and could be accessed via the internet. The participants' answers were recorded automatically into a spreadsheet associated with Google form and the researcher noted and analyzed the result of that online questionnaire.

The researcher also distributed reflection that needed to complete by the participants provided in the form of Google form. The participant accessed the link given by the researcher then they answered the questions. When respondents completed the reflection was unlike the structured journals (Borg, 2006), nevertheless, they had to address their experience, and impression and evaluation refer to the questions in the reflection. The participants needed to complete their reflections in Indonesian, not in English, since to make the flow of their thoughts not be blocked by the language difficulty (Nurfaidah, Lengkanawati, & Sukyadi, 2017) because as Borg (2006) statement, journal writing itself involved a lot of energy and effort, i.e. linguistic, cognitive, and sociocultural demands.

### 3.5 Instruments of Study

In this study, there were two instruments used in gathering data namely students' reflection and questionnaire. It did at IAIN Kendari especially on Syntax B Class in the fifth semester class of English education department.

#### 3.5.1 Questionnaire Sheet

The data for the study collected using questionnaire in order to gain insight into students' attitude toward the application of project-based learning (PBL) in English language learning generally. According to Fellegi (2010), a questionnaire (or form) is a group or sequence of questions designed to obtain information on a subject from a respondent. The questionnaire adjusted to attitude definition by Wenden (1991) also were partly adapted from attitude test by Eshghinejad (2016) and the other questions were taken by Abidin, Pour-Mohammadi, & Alzwari (2012), also by Nassir (2014). This study then developed those that were used as the data collection tool. The questionnaire divided into two parts which was the first part divided into four questions related to the demographic profile of participants and 24 statements related to student cognitive attitude on PBL implementation in English class. Those questions were putted on a Likert scale since the Likert scale was applied as one of the most fundamental and frequently used psychometric tools in educational and social sciences research (Joshi, Kale, Chandel, & Pal, 2015).

The scale value ranging from strongly disagree to strongly agree that questions consist of positive articles and negative articles (question number 7, 8,

9, 10, 13, 23, 24). Likert type ratings of the positive article were for “completely agree” that is worth five, “agree” that is worth four, “neutral” that is worth three, “disagree” that is worth two, “completely disagree” that is worth one. Then for each negative article, the Likert type ratings were for “completely agree” that is worth one, “agree” that is worth two, “neutral” that is worth three, “disagree” that is worth four, “completely disagree” that is worth five.

### 3.5.2 Reflection Guideline

The researcher distributed a reflection sheet that needed to complete by the participants in this study. Moon (2006) stated that journal writing can facilitate reflection and allowed students to express feelings regarding their educational experiences. Moreover, the format of this writing could be varied depending on the students’ needs and the instructor’s goals. Besides, Nurfaidah et al., (2017) pointed out that in the EFL teacher education context, reflection has also been an essential element with writing reflective journals as almost the standard requirement and shaped the quality of their reflection. This caused reflection journals could found out our strengths and weaknesses as teachers, evaluated the learning process, formulated corrective steps and applied the improvement of teacher quality.

Thus the researcher used reflection to gain deeper data that indicated their attitude toward project-based learning (PBL) implementation in the English classroom in more depth. Because there were three parts three-part of Syntax challenge project that students’ needed to finish it during learned in Syntax class,

the students' reflection also had three-part that each part composed of four questions that have to complete by the participants. The participants needed to describe each project that they worked on in their class in the first question. The second question was inquiring about the benefits of the PBL application, whereas the third question was asking the lack of PBL in their learning. Thus, the fourth question was asking about students' drawback in carried out each project and their strategy for improvement. Last, there were also additional questions in order to give a conclusion about students' impressions and suggestions to the used of PBL in English language learning. So there were 14 questions in the students' reflection. This reflection was adapted from Moon (2006) and Nurfaidah et al., (2017).

### 3.6 Data Analysis

In analyzing the data, the research firstly counted the students' results in answering the questionnaire then recapitulated in the form of a table that had been put based on the Likert Scale. Further, this analysis was to classify the result of categorization such as strongly agree, agree, etc. of the students' respond regarding the questionnaire of students' cognitive attitude. Then, analyzed and interpreted to the answers used a formula. To get the assessment of the presentation, the researcher would use a formula base on Likert (1932):

$$T \times P_n$$

$T$  = Total number of respondents who voted

$P_n$  = Likert score selection



As the example can be seen as in the analysis of the one statement in the questionnaire below:

N u m b e r	Tendency	Students' answers	positive				
			1	2	3	4	5
1	strongly disagree	2	2 X 1 =				2
	disagree	1	1 X 2 =				2
	neutral	5	5 X 3 =				15
	agreed	16	16 X 4 =				64
	strongly agree	7	7 X 5 =				35
	Total score		118				

Respondents who responded strongly agree (5)	7 X 5 =	35
Respondents who answered agreed (4)	16 X 4 =	64
Respondents who answered neutral (3)	5 X 3 =	15
Respondents who answered did not agree (2)	1 X 2 =	2
Respondents who answered strongly disagree (1)	2 X 1 =	2

All results were added up, total score = 118

In order to get the results of the interpretation of calculation scores, first, the highest score (Y) and the lowest score (X) must be known for the assessment items with the following formula:

Y = highest Likert score X Number of respondents

X = lowest Likert score X number of respondents

The highest number of items (very like) is  $5 \times 31 = 155$ , while the item (very disliked) was  $1 \times 31 = 31$ . So, if the total score of the respondent's score was 118, then the respondent's interpretation was the result of the value generated used the index% formula.

Formula index% = Total score / Y X 100



### Pre-settlement

Before completing it, we also had to know the interval (distance range) and interpretation of percent to find out the assessment by the interval method score percent.

#### Interval formula

$$I = 100 / \text{Number of scores (Likert)}$$

$$\text{Then} = 100/5 = 20$$

$$\text{Result (I)} = 20$$

This was the result of the interval from the lowest 0% to the highest 100%

The following interpretation criteria for the score (positive statements) were based on intervals:

Number 0% - 19.99% = strongly disagree

Number 20% - 39.99% = Disagree

Number 40% - 59.99% = Neutral

Number 60% - 79.99 = Agree

Number 80% - 100% = strongly agree

Then the final completion:

$$= \text{Total Score} / Y \times 100$$

$$= 118/155 \times 100$$

$$= 76.12\% \text{ in the category of "agree"}$$

Then the researcher concluded the interpretation of the results in the form of written paragraphs.

While the gathered students' reflection that contains students' answers concerning their attitudes on project-based learning method application in English classrooms would be highlight, collated and analyzed through coding and categorizing it in similar meaning. In the procedure of coding data, students' reflection was read and underlined in order to clustering different topics into the column and even reducing categories in which related each other to another topic by reading forth and back to data (Saldana, 2013). Then, in the end, the data were assembling to display primarily analysis. The display of students' reflection was in a paragraph then interpreted to elaborate on what the findings mean.

