CHAPTER I
INTRODUCTION

1.1. Background of the Research

To measure students' understanding of a lesson, a teacher should do evaluation by giving the students assessment and testing. Assessment and testing are done to measure the progress of students' performance. Teacher usually gives assessment to students spontaneously such as when the students respond to the questions, offer a comment, try out a new word, or check students understand or not, teachers subconsciously make an evaluation of students' performance. Different with assessment, testing has to have administrative procedures that given at identifiable times or schedule in a curriculum. The assessment and testing benefit both students and teachers because it provides opportunities for students to perform their ability in using language and it gives the teacher a chance to

evaluate the effectiveness of the syllabus, teaching materials, and the difficult area of lesson. In the application of testing, the teacher needs a tool that can measure students' comprehension of the material that they have received at school. Heaton explains that tests are constructed primarily as devices to reinforce learning and to motivate students or primarily as means of assessing the students' performance in the language" (1988, p. 5). It means that a test is given to motivate students for studying harder to get good score. In designing a test for the students, a teacher has to find out the purpose of a test. Determining the purpose of the test helps the teacher to choose the appropriate test and focuses on the objectives of the test. There are several types of tests, namely language aptitude, proficiency, placement, diagnostic, and achievement. One of the test types is achievement test which is related to classroom lessons or syllabus. This kind of test is given to determine whether the objectives of the lesson or syllabus have been fulfilled at the end of term of study.

Unfortunately, many teachers think that a test is over after tested. Whereas, reconstructing the test items is important to use to other students in the future. It means that the teacher has to know which test items are good and bad, so they can make better tests in the future. To analyze whether the test items are well constructed or not, this research uses item analysis. According to Heaton, item analysis is used to analyze the test items which answered correctly by the more able testees and badly by the less able testees. It identifies the certain difficult items in the test and as the mark to be good evaluation and changed into better one for future tests (1988, p. 178). Doing item analysis helps to find out and erase the

weak or bad test items to get better in the future. The test items can be checked by using item difficulty and item discrimination. Item difficulty, commonly known as *facility* value (FV) refers to the proportion of the examinees that responded to the item correctly. The discrimination index differentiates students who are knowledgeable and those who are not.

The two of previous studies are discussed below. The first research is done by Yu-mien Shih (2010) on her journal entitled *An Item Analysis of an English Achievement Test Taken by EFL College Students in Taiwan*. The finding showed that vocabulary tests are the most difficult among the other sections like listening, grammar, and reading. Vocabulary items have better discriminating power to distinguish good students and low students. From 75 items, there are 29 items (39%) found to be problematic items which do not meet the criteria. Those items should be deleted and revised. The second research is done by C. Boopathiraj (2013) on his journal entitled *Analysis of Test Items on Difficulty level and Discrimination Index in the Test for Research in Education.* The finding showed that there are 35 items are accepted without revision, 12 items are accepted but should be revised, and 13 items should be discarded. The test developer should be very careful while selecting items because work can be repeated in other subjects to develop a good item bank for student community. The principle function of an instrument used in any educational research is to infer student's capacities and itoffers information to base the making of correct decisions. Until now, item analysis is animportant phase in the development of a test or instrument.

1.2. Statement of Problems

The statement of problems in this study:

1.2.1. How is the Facility Value (Item Difficulty) of English Grammar Mid-Term Test for S3A Class Students of STBA LIA of the Academic Year 2014-2015?

1.2.2. How is Item Discrimination of English Grammar Mid-Term Test for S3A Class Students of STBA LIA of the Academic Year 2014-2015?

1.3. Research Objectives

Based on the research questions on the statement of problems, the purpose in this research is to find out the item difficulty and item discrimination of English Grammar Mid-Term Test for S3A Class Students of STBA LIA of the Academic Year 2014-2015.

1.4. Scope and Limitation

The problem of the research is limited only on the item analysis of English Grammar Mid-Term Test for S3A Class Students of STBA LIA of the Academic Year 2014-2015. This research focuses on the multiple choice items. In analyzing the data, this research uses Heaton's test item theory.

1.5. Research Methodology

There are at least four aspects that are discussed in this research. Those four aspects are as follow:

1.5.1. Method

This research uses a quantitative method. Kumar (2011) defines quantitative is able to quantity extent of variation in a phenomenon, situation, issue, etc. (p. 20). The quantitative method is used to find out the facility value and item discrimination by using theory of Heaton. The research takes the data from of English Grammar Mid-Term Test for S3A Class Students of STBA LIA of the Academic Year 2014-2015. The research takes 22 students.

1.5.2. Data

The data are taken from of English Grammar Mid-Term Test items and students' answer sheets of S3A Class students at STBA LIA. The purpose of this research is to analyze the item difficulty and item discrimination in the multiple choice items test. The test is held on Thursday, October 30, 2014. Total of multiple choice items in this test consists of 20 questions.

1.5.3. Data Collecting Technique

The steps to collect the data are copying the test items and students' test answer to be analyzed in order to find out the facility value and item discrimination.

1.5.4. Data Analysis Procedure

The data analysis is the process of identifying and analysis the data. The data are analyzed by:

a. Arranging the number of the correct answers of multiple-choice items to find the rank and frequency.

b. Dividing the students' answers based on the number of the correct answer into upper half and lowers half group.

c. Analyzing the data by counting the facility value using the theory of J.B. Heaton's theory about item analysis.

d. Then, counting the discrimination index using the theory of J.B. Heaton's theory about item analysis.

e. Classifying the items into the categories in terms of item difficulty and item discrimination based on recommendation by Heaton.

f. Showing the result through chart

g. Drawing conclusions.

1) Item difficulty

To calculate the Item Difficulty, this research uses the formula:

$$FV = \frac{R}{N}$$

Where,

FV = Facility Value

R = Represent the number of students answering correctly

N = Represent the number of students taking the test

2) Item Discrimination

To calculate the Item Discrimination, this research uses the formula:

$$D = \frac{U-L}{n}$$

Where,

D = item discrimination for an individual item

U = item facility for the upper group on the whole test

L = item facility for the lower group on the whole test

n = Number of candidates in either the U or L group

1.6. The Organization of Writing

This research consists of four chapters. The first chapter is introduction which consists of background, statement of problem, research objective, scope and limitation, and research methodology. The second chapter is theoretical framework which presents some theories the support the analysis. The third chapter is the analysis of the data that analyzed and the answers. The last chapter is the conclusion of the analysis.