

Developing an Item Bank for Grade 10 Mathematics

Nu Nu Khaing¹ and Khin Shwe Than²

Abstract

An item bank is a collection of items that are written, pretested, and calibrated. Test items are written from the nine chapters (Chapter 1 to 9) of Grade 10 Mathematics textbook. In this study, 300 students from No.2, Basic Education High School, and No.3, Basic Education High School of Dagon Myotheit (East) Township participated. In this study, the content area was selected from chapter 1 to 9 of Grade 10 Mathematics. Items were selected from the textbook and some old examination questions. After the pilot testing, three sets of item forms (Form A, Form B and Form C) were constructed with the good items from the item pool. There were 11 items of multiple-choice items and 9 constructed-response items (3-items for 3marks and 6-items for 5marks) in each form. After administering to 300 Grade 10 students, data analysis was done by using the item analysis technique. According to the data analysis result, it was found that these three tests have different values. It can be seen that the values of form A and B are nearly the same, but poor item quality has been high in form C. So, it can be said that among these three forms, most items in form C can be regarded to be more modified than the other of forms in general.

Key Words: Item Analysis, Item Difficulty, Item Discrimination, Item Bank

1. Lecturer, Dr., Department of Educational Psychology, Yangon University of Education
2. Senior Assistant Teacher, No.3 B.E.H.S, Dagon Myotheit (East) Township, Yangon