Thesis Title   Construction of Tailored Test Package and Test Administering Through Microcomputer in Mathematics for Mathayom Suksa 1 Level

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Abstract

The purposes of this research were to construct a tailored test package test administering through microcomputer on topic of "Equation" in mathematics course of Mathayom Suksa I, measuring the 1st learning objective - students can solve the problems of equation and can check the answers by themselve. The study also investigated the students' opinions about the tailored test administering through microcomputer.

The researcher constructed 200 items. The experts were asked to checked the content validity. 328 samples were tested and the items were analyzed by using the 27% technique. The result shows the 132 items were effective. Then, 3,225 samples were tested again and analyzing the qualities of items by using item response theory. The study found 107 items were effective. After that, constructed the computer program for test administering and a handbook for this test package. After 5 samples computer teacher were used the tailored test package througn microcomputer with it's handbook. Then, the samples were answered the questionnaire about the handbook and this test package. The result shows they were much agreed that easy to install this test package and the general traits of the handbook were good. They were most agreed that the general traits of this test package were good, too. After 52 students were tested with

the this test package for two times, the result shows the average number of items for testing were about 15 items, the average time for testing were about 15 minutes. The 1 st testing - average scoring was 53.500, standard deviation was 12.392, and the 2nd testing - average scoring was 54.000, while the standard deviation was 13.909. For testing the differences of means by using paired t - test, the result shows no statisticaly significant differences at .05 level. After the 2nd testing, the samples were answered the questionnaire about the tailored testing through microcomputer. The result showed that the students have a positive opinion about this testing technique.