

Thesis Title : The Development of Microcomputer Item Collections and
Item Analysis Program for Multiple Choice Items

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ABSTRACT

The purposes of this study were to develop and to evaluate the Microcomputer Item Collections and Item Analysis Program for multiple choice items. The research was conducted by following steps :
(1) identifying and analysing the problems of item collections and item analysis management, (2) designing the program, (3) choosing a computer language and writing the program, (4) compiling and revising the program (5) testing the program, (6) preparing the manual and (7) evaluating the program.

The study sample were teachers selected by using a Two-Stage Sampling technique as follows : (1) 5 secondary schools attached to the Department of General Education in Nakhonratchasima province which had at least 10 microcomputers were randomly chosen

(2) 42 teachers of Mathematics, Science, Thai, English and academic support staff were randomly chosen in selected schools.

This research resulted in A Microcomputer Item Collections and Item Analysis Program for multiple choice items. This program could analyse items according to Norm-Referenced criteria, and could store, retrieve, select and print tests according to selective criteria.

A result of the program evaluation indicated that the efficiency of the program was 91.25/100, which was higher than the criterion. As for the opinions of the teachers towards the program developed, it was evident that their responses were positive. The manual was precise and congruent to the program. The teachers could use the program efficiently. This program was useful in educational measurement and could replace the traditional systems.