

JAKKRIT SAMRAJAI : RELATIVE EFFICIENCY OF MULTIPLE TRUE-FALSE AND
TYPICAL MULTIPLE-CHOICE QUESTIONS IN ACHIEVEMENT TEST. THESIS
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This investigation was designed to study the relative efficiency and decision efficiency of the typical multiple-choice questions (T.MC), multiple true-false questions with absolute knowledge scoring (MTF.A), and multiple true-false questions with partial knowledge scoring (MTF.P). Two comparable achievement tests, one consisted of 63 T.MC questions and the other consisted of 63 MTF questions, on Evaluation and Test Construction (Ed-251) were employed for the study. The sample of 1672 students in 15 teachers colleges were randomly assigned to take the tests. The responses were analyzed through the three-parameter logistic item response model. Item parameters were estimated by LOGIST version 2.5. Item and test informations were calculated. The relative efficiency and the decision efficiency indices were also computed.

The results showed that MTF.P questions were more efficient than T.MC and MTF.A questions for the students of low, moderate, and relatively high level of ability, but less efficient than T.MC and MTF.A at very high ability level. MTF.A questions were more efficient than T.MC questions for the students of relatively high level of ability but less efficient than T.MC at moderate and low ability level. /